◎ YEAR：2023（SMS1112+SMS1121）

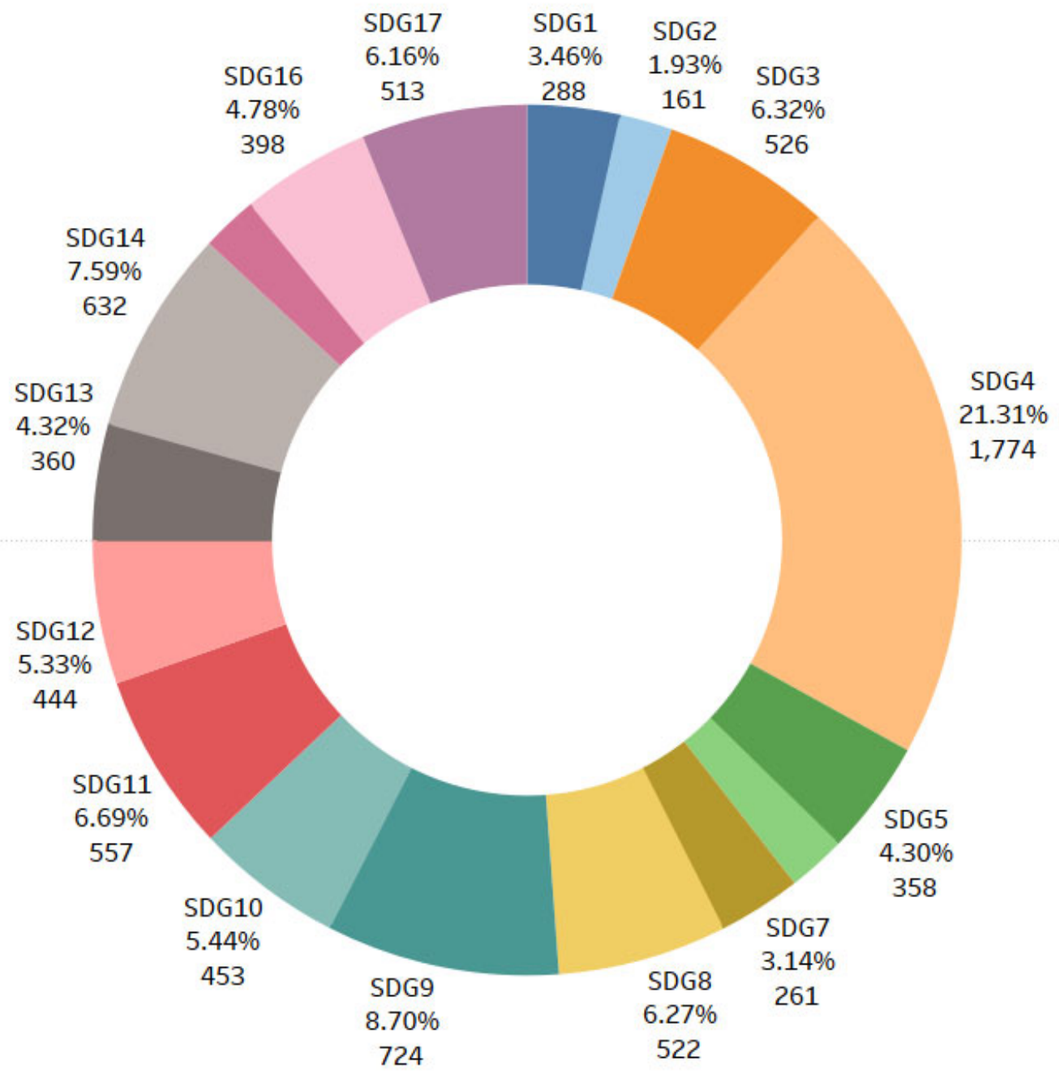
◎ The total number of courses in the school：5130

◎ Related to SDGs：2765

◎ Designing and offering the courses of Introduction to Oceanography and Sustainable AI (the first of its kind in Taiwan),

◎ and incorporating them into the mandatory curriculum for freshman students。

The proportion of SDGs courses across the entire school



THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	4	B39040JU	A	Physiology	To enable students to understand cellular physiology and the operation of human organs and systems.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	E4A01C06	B	Maritime Administrative Law	This course complies with the specifications of the International Maritime Organization (IMO) Model Course7.03-3.1 Ensure Compliance with pollution of the Marine Environment &3.6.1 Basic working Knowledge of the Relevant IMO Conventions concerning SOLAS and MARPOL, taking into account the teaching of relevant necessary knowledge or skills. The following teaching contents are arranged: Domestic regulations related to shipping.	2	A	Department of Merchant Marine	SDG4,SDG10,SDG12,SDG14,SDG17,SDG16,SDG13,SDG11,SDG9,SDG6,SDG7,SDG8,SDG5
2023	1121	Bachelor	3	B32031C5	A	Baking Science	Understand the review and outlook of the baking industry, understand the classification of baking products and the characteristics of raw materials, learn the production processes of bread, cakes, Western pastries and Chinese pasta, and become familiar with the principles and applications of baking calculations. To enable students to understand the characteristics of various baking ingredients (knowledge), strengthen students' ability to apply baking ingredients to baked products (skills), instill in students the professional attitude and professional qualities of baking practitioners (attitude), and strengthen students' multiple and reverse thinking ability.	2	B	Department of Food Science	SDG4
2023	1121	Bachelor	3	B3203K41	A	Protein Chemistry	This course is aiming to give students the knowledge of protein function and structure, from genetic engineering to protein engineering, by introducing from basics of protein science to up-to-date protein structure examples.	3	B	Department of Food Science	SDG4
2023	1121	Bachelor	3	B32030EI	B	Undergraduate Seminar (I)	Enhance students' extracurricular knowledge in different fields and verify the theories they have learned.	1	B	Department of Food Science	SDG4
2023	1121	Bachelor	3	B32030GJ	A	Food Analysis Lab.(I)	This course mainly allows students to understand the types of analysis methods for the main components and sub-components in food matrices, and the analytical methods that are applicable to different food types (AOAC). Through the practice of experimental courses, students can establish the calibration of experimental data. concepts, and then meet the standards required by governments and international	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B32012W0	B	Programming and Data Processing	Through program design logic and syntax, construct a data processing model and create the required application forms. In this course students will learn and discuss 1. Programming: including programming logic and structure, and designing solutions through a problem-oriented approach. 2. Data processing: including data planning and data format processing to make effective use of data. 3. Programming and data processing: Integrate programs and data operations to build the required applications. 4. Other assistive technologies: including discussion of other input or output modes.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B320145S	B	Biology Lab. (Ⅱ)	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	B	Department of Food Science	SDG1,SDG4,SDG14,SDG12
2023	1112	Bachelor	1	B32012W0	A	Programming and Data Processing	Through program design logic and syntax, construct a data processing model and create the required application forms. In this course students will learn and discuss 1. Programming: including programming logic and structure, and designing solutions through a problem-oriented approach. 2. Data processing: including data planning and data format processing to make effective use of data. 3. Programming and data processing: Integrate programs and data operations to build the required applications. 4. Other assistive technologies: including discussion of other input or output modes.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201L6P	B	General Chemistry Lab. (Ⅱ)	In line with the basic chemistry course theory, it emphasizes the development of experimental operation skills and the ability to write experimental reports.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201M9N	A	Calculus (Ⅱ)	To learn the techniques of integration and its applications, and the differentiation and integration for several variables.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201A3G	A	Introduction to Food Biotechnology Engineering	Life sciences are changing with each passing day. This course mainly allows students to have a preliminary understanding of the current development and future prospects of biotechnology, stimulate students' interest and awareness of the biotechnology industry, and plan their future study directions.	2	A	Department of Food Science	SDG2,SDG3,SDG4
2023	1112	Bachelor	1	B320145S	A	Biology Lab. (Ⅱ)	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	B	Department of Food Science	SDG1,SDG4,SDG14,SDG12
2023	1112	Bachelor	1	B3201L6P	A	General Chemistry Lab. (Ⅱ)	Learn the basic operations of chemical experiments as the basis for future experiments in other professional courses such as biochemistry, molecular biology, etc.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201NNY	A	Service-Learning Program-Campus Service (Ⅱ)	Department of Food Science and Technology Library Cleaning	0	T	Department of Food Science	SDG4
2023	1112	Bachelor	1	B320183Q	A	General Physics (Ⅱ)	In addition to enabling students to establish the basic concepts of physics and understand their development, they can also further apply relevant knowledge flexibly.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201NNY	B	Service-Learning Program-Campus Service (Ⅱ)	Department of Food Science and Technology Library Cleaning	0	T	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201NNX	C	Service-Learning Program-Campus Service(I)	Department of Food Science and Technology Library Cleaning	0	T	Department of Food Science	SDG4
2023	1121	Bachelor	3	B3203463	A	Biostatistics	The broad objective of the course is to promote an understanding of an objective and disciplined approach in the study and analysis of problems especially those involving numerical data in experimental studies.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B0104H6U	A	International Fishery Management	1. Integrate knowledge such as the law of the sea and fishery regulations, and the historical development of international fishery management. 2. Gain a broader understanding of fisheries administration and aquaculture management. 3. Strengthen narrative skills and in-depth topic analysis skills through short presentations.	2	B	Bachelor Degree of Ocean Law and Policy	SDG1,SDG5,SDG9,SDG17,SDG16,SDG14,SDG13,SDG12,SDG11,SDG10,SDG8,SDG3,SDG2
2023	1112	Bachelor	2	B33024B3	A	Key live feeds for first feeding of aquatic larvae	Based on the international research and industry trends in larviculture of aquatic organisms, this course introduces the biological features, aquaculture technologies of various key live feeds for aquatic first feeding. The training is designed to enhance the student’ s capacity to develop aquaculture technology of using live feed for aquatic larviculture. Practical trainings are provided to students to investigate the effects of different live feeds to aquatic larvae, which enhances student’ s research and manipulation abilities in aquatic larviculture and allow them to contributes to aquaculture industry and research activities.	3	B	Department of Aquaculture	SDG1,SDG4,SDG9,SDG17,SDG14,SDG12,SDG11,SDG8,SDG3,SDG2
2023	1112	Bachelor	2	B80022OZ	A	Introduction to Marine Geology and Energy	The main objective of this course is to teach students the basic concepts of marine geology and geophysics, thus students could have a basic understanding of the geological aspects in ocean sciences.	3	B	College of Ocean Science and Resource	SDG13,SDG14
2023	1112	Bachelor	3	B8004556	A	Special Topics on Geoscience Research (I)	1. Guide students to understand and enter earth science-related research topics, and encourage students to enter laboratories of interest to participate in research work. 2. Through the unified requirements of this course and the guidance of graduate students and teachers from each laboratory, students will be helped to acquire basic abilities and have a clear direction when selecting work directions or research goals in the future.	2	B	College of Ocean Science and Resource	SDG4

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2023	1112	Master	2	M35020AE	A	Special Topic on International Trade and and Production Specialization	The purpose of this course is to explore the relationship between international trade and industrial structure, and to analyze the dynamic effects of trade networks and industrial division of labor from the perspective of industrial agglomeration in the upstream, middle and downstream division of labor. In addition to focusing on the economic issues related to various industries, students will also strengthen their literature reading, paper report writing skills and expression skills.	3	B	Institute of Applied Economics	SDG4,SDG17
2023	1112	Master	1	M02013NN	A	Special Topics in food Safety and Quality Management	Learn about Quality Management from Food Safety Management System Non-Conformances	3	B	Institute of Food Safety and Risk Management	SDG2,SDG12,SDG4,SDG3
2023	1112	Bachelor	3	B5602070	A	Engineering Materials	The main learning objectives of Engineering Materials are to enable students to understand the theory of engineering materials and apply the basic knowledge of engineering materials learned in the field of marine engineering. In addition to emphasizing basic material science and material properties, it also trains learners for practical applications in the field of marine engineering. The thinking and attitude you should have. After taking this course, students will be able to correctly select and master the environments and occasions in which general engineering materials are used.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG9,SDG14,SDG11
2023	1112	Bachelor	3	B8903I3J	B	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Bachelor	3	B6A03F1R	A	Marine Management Seminar	Let students taking the course understand the development trends and current status of marine shipping-related industries	2	B	Department of Marine Engineering	SDG5,SDG13,SDG17,SDG14,SDG8
2023	1112	Doctorate	1	D73010WQ	A	Operations Management for Maritime Logistics	To cultivate doctoral students' professional knowledge in international shipping, international logistics and global supply chain management, and to enhance students' ability to analyze and write English papers.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Doctorate	1	D730195R	A	Seminar on Research Methods	It is an advanced monograph course on shipping contracts, aiming to enable students to understand the transportation characteristics and conditions of bulk transportation. Mainly explain the terms of the latest 1994 Gencon Contract for Scheduled Shipping and the 1993 NYPE Contract for Scheduled Shipping.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	2	B320216L	B	Analytical Chemistry(II)	The course is to acquaint the student with laboratory techniques for chemical analysis and the appropriate selection and use of these methods for their future success in data analysis and experimental design of any chemical related problems in every scientific disciplinary including chemistry, biology, biotechnology, forensic science, food science, material science, clinical chemistry, environmental science, etc.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	2	B320216L	A	Analytical Chemistry(II)	This course consists of theoretical lectures and experiments, aiming to familiarize students with the principles, applications and operations of traditional quantitative analysis.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	2	B320216M	A	Analytical Chemistry Lab. (II)	Students are trained to obtain correct chemical analysis results with a rigorous attitude through practical operations, combined with academic knowledge.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M32012XY	A	FMSA Preventive Control for Human Food	To train student understand the US FDA Food Safety Modernization Act (FSMA) in 2015 issued Current Good Manufacturing Practice, Hazard Analysis, and Risk-based Preventive Controls for Human Food regulation; so that student will be able to be a "Preventive Controls Qualified Individual."	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	4	E42034A0	A	Cell Biology	Cells are the basic functional units of life, and single-celled organisms are ubiquitous on the surface of the human body and in the intestines. The human body has a variety of cell types, arranged into specific structures, and then interconnected to form different organs and perform individual functions. Human cells can be isolated and cultured. Cells that do not function properly are prone to cancer. The latest biomedical developments such as cell therapy, stem cell research, and customized and regenerative medicine all stem from the analysis, understanding, and manipulation of cells. Without an understanding of cells and cell biology, it is impossible to understand the research and development and practical directions of modern biotechnology. Therefore, the goals of this course are: (1) to help students understand the fine structures, functions and related biochemical macromolecules in cells; (2) to enable students to understand from what angle cell and molecular biologists pose questions and through what methods Experimental process to find answers	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	2	B01022PW	A	Japanese for Law Students (2)	This course will improve students' ability to read legal Japanese through explanations of the basic structure and syntax of Japanese.	2	B	Bachelor Degree of Ocean Law and Policy	SDG17
2023	1112	Bachelor	4	B01043HK	A	Case Studies in Criminal Law and Criminal Procedure Law (2)	This course aims to help students make use of the knowledge they have learned in the Criminal Procedure Law class and learn how to think and solve specific cases through the practice of relevant criminal cases.	2	B	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1112	Master	1	M68010YW	A	An Introduction to Automatic Marine Transportation Systems	This course will introduce the concept of automated ocean transportation systems. The content includes the development of automation of ocean transportation services, ship terminal seat scheduling and how to automate it, and how to apply automation to improve the efficiency of cargo loading, container loading and unloading scheduling and other operations. It will cover the industrial convenience brought by related automation of maritime logistics services, automation of maritime supply chain information, and how maritime-related warehousing combines automation and information flow concepts. Introduce how to apply intelligent system design methods, automatic control concepts and information to marine transportation engineering and discuss related application examples	3	B	Department of Transportation Science	SDG4,SDG9
2023	1112	Bachelor	3	B0103Q5F	A	Fisheries Law	(1) To integrate the knowledge of international maritime law, maritime administrative law and general theory of administrative law in this course, and to understand the current status and issues of fisheries law and regulations. (2) To familiarize those who are interested in fisheries administration, marine environmental protection, fisheries production and marketing, and further research with professional terminology and concepts, and to understand the background and progress of the development of the relevant legal system in Taiwan, in preparation for future careers or further studies.	2	B	Bachelor Degree of Ocean Law and Policy	SDG1,SDG8,SDG10,SDG17,SDG16,SDG14,SDG13,SDG12,SDG11,SDG9,SDG3,SDG2
2023	1112	Bachelor	2	B3202448	B	Biochemistry Lab. (I)	Skill for experimental technique of biochemistry	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B6F0115Z	A	The First Stage Team Training on Ship	Allow students to experience and understand the basic environment, equipment and systems of the engine room on a real ship, and observe the operating procedures of a real ship	1	B	Department of Marine Engineering	SDG7,SDG12,SDG15
2023	1112	Bachelor	4	B6A0422C	A	Research in Special Topics (VI)	This course will let the students be trained with nanotechnology, fuel cell new energy and electrochemical techniques for connecting theories and operations.	1	B	Department of Marine Engineering	SDG7,SDG12,SDG11,SDG9
2023	1112	Bachelor	2	B9502Y5B	A	Instructional Internship	1.to understand status and problem of teaching in elementary school 2.to build the ability of collecting and making media. 3.to foster the skills of classroom management. 4.to apply the teaching strategies each learning area.	2	H	Teacher Education Center	SDG4

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2023	1112	Bachelor	1	E49014FR	A	Seminar on Constitutional Rights	01. By means of human rights issues for discussion, we may learn the scope and the limit of particular identity-related Constitutional rights. 02. To see, in the Internet age, kinds of newly emerging human rights and its content. 03. To help our students obtaining the relevant knowledge and cultivating the mind and law-abiding spirit in this class.	2	C	Office of the Academic Affairs	SDG3,SDG5,SDG10,SDG4
2023	1112	Master	1	M83011IP	A	Case Study for Molecular Physiology of Marine Plankton	Via reading the latest research papers, this course will introduce the physiology of marine plankton and their responses to the environmental changes.	3	B	Institute of Marine Environment and Ecology	SDG4,SDG14
2023	1112	Bachelor	1	B6801S60	A	Linear Algebra	Linear algebra and matrix theory are basic knowledge for learning knowledge fields such as natural science and engineering. The purpose of this course is to enable students to have a preliminary understanding of the basic theory of linear algebra (vector/matrix), and have basic operation and calculation abilities, and then have the basic application ability to use computers to perform numerical operations.	3	A	Department of Transportation Science	SDG7,SDG9,SDG12
2023	1112	Bachelor	2	B3202L6J	A	Microbiology (Ⅱ)	The topic of this course is to introduce the knowledge of Microbiology for the students study in the field of Food Science and related disciplines.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	2	B320245A	A	Biochemistry (I)	Explore the basic chemical reaction principles and mechanisms of life sciences. This course is an essential key to entering biotechnology-related disciplines.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B0103N4F	A	Maritime Criminal Law	This course aims to guide students to understand the basic knowledge of maritime criminal law, and to use the knowledge learned in the General Principles of Criminal Law and Special Principles of Criminal Law courses to specifically think about ways to solve maritime crime problems. In addition, given that "the best social policy is the best criminal policy", if we want to solve the problem of crime at sea in the long term, looking for policies to solve these problems will be the best way. The topics in the course related to the crime of ocean pollution, the crime of destroying fishery resources, the crime of maritime smuggling, and the crime of human trafficking are all related to natural resources (ocean water resources, aquatic resources, mineral resources, etc.) and human resources engaged in maritime work. The various cases introduced by the teacher in class can inspire students to integrate the knowledge they have learned in courses such as public policy, international public law, international law of the sea, general principles of criminal law, and specific provisions of criminal law, and propose solutions to address both the symptoms and root causes of maritime crimes as well as permanent solutions. Preliminary views on the continued development of offshore natural resources and the use of human resources	2	B	Bachelor Degree of Ocean Law and Policy	SDG8,SDG16,SDG10,SDG14,SDG12
2023	1112	Master	1	M5201F85	A	Advanced Structural Mechanics	Methods of structural analysis and computer programming are systematically explored to understand the characteristics and processing methods of structural stiffness matrices.	3	B	Department of Harbor and River Engineering	SDG8,SDG9
2023	1112	Master	1	M6801N8X	A	Measurement of Transportation	This course is a basic subject. Its main goal is to deepen students' basic concepts of statistical analysis and introduce quantitative analysis methods that are often used in the field of transportation. Through the use of statistical package software, students can understand the process of model parameter calibration, inference, and prediction, thereby strengthening students' abilities in data analysis and model construction.	3	B	Department of Transportation Science	SDG4,SDG8
2023	1112	Master	1	M680133Q	A	Global Marine Transportation(一)	It constructs master's students' professional knowledge and practical development trends in maritime transportation and ports. It is hoped that taking this course will inspire students to explore the field of maritime transportation.	3	B	Department of Transportation Science	SDG11
2023	1112	Master	1	M680167B	A	Reefer Cargo Operation	This course mainly provides postgraduate students in the Department of Transportation Science with the applied knowledge and research methods of low-temperature cargo transportation.	3	B	Department of Transportation Science	SDG4
2023	1112	Bachelor	2	B6D02T2T	A	Welding	1. Let students understand the relevant theories in the field of welding. 2. Use the teachers' own teaching and practical experience to combine the welding knowledge and techniques required by the corporate world with the welding theory, so that theory and practice can be combined so that students can apply it on board ships or work on land in the future.	3	B	Department of Marine Engineering	SDG4,SDG9
2023	1112	Master	1	M6801MGS	A	Marine Geographic Information System	This course gives an overview to the concepts, techniques and application of marine geographic information system (MGIS). Through the use of GIS software, it provides an introduction to basic functionality of desktop GIS, such as spatial data format, data management and analysis, spatial display and cartographic output. The objective of this course is to equip students with a conceptual base and software skill to apply GIS technology in tourism and leisure related problems.	3	B	Department of Transportation Science	SDG4
2023	1112	Bachelor	1	B9501Y56	A	Teaching Strategies	1.students can understand the basic concepts of teaching. 2.students can get the important principles of teaching. 3.students can practice the technique and methods of teaching really. 4.students can comprehension the situation and problem of teaching. 5.students can apply the principles of teaching.	2	H	Teacher Education Center	SDG4
2023	1112	Bachelor	1	B8101C7E	A	Ocean and Climate Changes	Students can understand the changing ocean and climate, and the role of ocean on climate change. After completing this course, students are able to illustrate the status of ocean cand climate change and what they affect human being.	2	B	Department of Marine Environmental Informatics	SDG13
2023	1112	Bachelor	1	E4Q0102J	B	Convention of SOLAS and MARPOL	1. The International Convention for Safety of Life at Sea (SOLAS for short) (1974) is a unified principle and relevant rules jointly formulated by the contracting governments to improve the safety of life at sea. The MARPOL 73/78 Convention is one of the most important international maritime environmental conventions in the world. The convention aims to minimize the dumping of pollutants into the sea, the discharge of oil, and the emission of harmful gases into the atmosphere. His set goal: to preserve the environment of the oceans by completely eliminating pollution like the discharge of oil and other harmful substances in the ocean, and to minimise pollution caused by accidental discharges of such substances.	2	A	Department of Marine Engineering	SDG3,SDG6,SDG14
2023	1112	Doctorate	2	D7402I12	A	Seminar on the Law of State Responsibility and Compensation	Understand national responsibilities. In addition to state compensation liability, state liability also includes state loss compensation liability and state social responsibility.	2	B	Institute of the Law of the Sea	SDG3
2023	1112	Bachelor	3	B6A03V47	A	Boiler	After explaining the basic boiler thermodynamic cycle operating principle through the first law of thermodynamics, we then introduce the inspection, maintenance and repair knowledge of various types of boilers based on the STCW Convention and related information. In order to train university students on the use of boilers and the correct and safe operation methods. The learning content of the overall course uses simple and practical topics to increase students' interest in seeking knowledge about boilers, so that students can acquire correct knowledge and concepts, and hope to meet the content requirements of relevant conventions.	2	A	Department of Marine Engineering	SDG7,SDG11,SDG14,SDG13,SDG9
2023	1112	Master	1	M3B014AT	A	Special Topics in Microbiology	The aim of this course is to deliver knowledge and help students to know the important topics in microbiology.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG6

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2023	1112	Bachelor	2	B320216M	B	Analytical Chemistry Lab. (II)	To learn and master the basic skills needed to perform quantitative analytical measurements (mass and volume measurements, quantitative transfer, etc.) To understand and apply a variety of chemical reactions (precipitation, acid-base, complexation, and oxidation-reduction) for the quantitative analysis of three or more certified unknowns To introduce students to formal laboratory report writing To learn how to calculate the concentration of an analyte in an unknown sample (and the associated uncertainty, when applicable) To learn how to handle the statistical treatment (mean, standard deviation, 95% confidence interval, etc.) of experimental data obtained via volumetric and instrumental methods of analysis To understand the difference between accuracy and precision of the results obtained	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B3201I21	A	Fundamental Food Engineering	To introduce the applications of important engineering principles in food science.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B320183R	A	General Physics Lab.(Ⅱ)	Physics is basically an experimental science. This course uses the practical process - seeing is believing, and is supplemented by watching teaching videos to help students understand the basic concepts and phenomena of physics, as well as verify relevant physical laws or principles, and Build basic experimental skills.	1	B	Department of Food Science	SDG4
2023	1112	Master	1	M52012Q3	A	Fractured Rock Aquifer Hydraulics	This course provides engineering students to understand groundwater flow characteristics and behaviors through fractured rocks; Plus, students are able to learn the fundamentals of fractured rock hydraulics and investigation approaches for solving engineering problems.	3	B	Department of Harbor and River Engineering	SDG13
2023	1112	Bachelor	1	B0101CAS	A	Introduction to Marine Affairs	Taiwan is surrounded by sea. National security, economic development and people's well-being are closely related to the ocean. In recent years, sustainable management of the ocean has gradually received attention. The goal of this course is to respond to domestic and international situations and provide students with a comprehensive concept of ocean affairs. It includes relevant international marine management regulations and organizational operations, as well as domestic maritime patrol policies, marine conservation, and industrial management. It focuses on the combination of theory and practice and stimulates students' ability to think, analyze, and discuss.	2	A	Bachelor Degree of Ocean Law and Policy	SDG1,SDG4,SDG6,SDG16,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG7,SDG17,SDG5,SDG3,SDG2
2023	1112	Bachelor	3	B01231RZ	A	Civil Procedure Law	Introduction to the theory and operation of civil procedure	2	A	Bachelor Degree of Ocean Law and Policy	SDG16
2023	1112	Bachelor	3	B01232H3	A	Civil Law：Special Part of Obligations	Civil law serves as the normative basis for relations of rights and obligations between private individuals. Among them, the civil law debt compilation is the center of gravity of private law, especially property law, and is a collection of types summarized on these important norms of various rights and obligations in inter-private property General, debt compilation of each of the cheap provisions. In other words, that is, the provisions of each section of the debt are where the specific type of regulation of the true debt law lies; The same premises, as the basis for the common application of each individual type, not that the debt total is an independent regulation. The People's Congress, the Debts, and the Debt are each a comprehensive norm. Studying civil law and property law requires grasping the organic combination of this "trinity" in order to have a macro vision and a sophisticated approach. Based on this philosophy, this course aims to be concise, in-depth, focusing on the training of students' legal thinking skills, and implemented in daily life.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG5
2023	1112	Bachelor	3	B010334F	A	Judicial Practice	1. In order to enable students to understand the practical operation of justice, combine theory with practice. 2. Through course arrangements that combine theory and practice, practice legal theory and experience living legal cases. 3. Experience empirical law as a basis for career planning.	2	B	Bachelor Degree of Ocean Law and Policy	SDG8,SDG11
2023	1112	Master	1	M6801J4W	A	Statistics and Data Analysis	Students completing the course should gain the following knowledge and skills: An understanding of basic descriptive statistics and ability to calculate these statistics and to generate them using SPSS (Statistical Package for the Social Sciences) software; an understanding of when each may be appropriate for descriptive purposes. An ability to determine appropriate tests of statistical significance for differences in means, differences in percentage distributions and cross-tabulations, correlation coefficients and partial coefficients, and to generate the relevant statistics using SPSS software. An ability to structure a multiple regression analysis, to generate regression results using SPSS software, and to interpret these results for statistical and theoretical significance.	3	B	Department of Transportation Science	SDG4,SDG9,SDG10,SDG12,SDG16,SDG8
2023	1112	Bachelor	3	B6D03V73	A	First Aid and Medicine Knowledge	Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	2	B	Department of Marine Engineering	SDG3
2023	1112	Bachelor	2	E4202OV2	A	Practical Skills in Biomolecular Sciences	Biomolecules are polymers, composites, derivatives or metabolites composed of four basic molecules: nucleotides, amino acids, monosaccharides, and fatty acids, including nucleic acids and proteins. , polysaccharides, starch, cellulose, lipids, vitamins, hormones (hormones), etc. Some of these molecules are components of the structure of living organisms, and some are the protagonists or coordinators of various chemical reactions that exert biological functions. , promoter. This course will introduce these four categories of basic biological small molecules and the important macromolecules derived or combined, and explain the technologies involved in their analysis, production, and application, so that students can understand the application of these biological small molecules in medical, It plays an important role in modern life such as health, agriculture, sanitation, food safety, and industry.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	2	B9D023KU	A	Fantasy Literature (High-Intermediate)	The aim of this course is to provide an overview of fantasy literature from the classical to the contemporary. This will cover a wide range of material across expanses of time, culture and literary forms. Through a careful selection of excerpts, we aim to define and discuss fantasy literature of today and its place on the literary map.	2	B	Institute of Applied English	SDG10
2023	1112	Bachelor	3	B9E024J5	A	Virtual Reality Project Implementation	1. Learn to use Unity to build a VR environment 2. Learn how to build 3D models 3. Learn to use gestures or postures to control objects in VR scenes 4. Group design and complete interactive VR content	3	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1112	Doctorate	2	D74023TZ	A	Seminar on Constitutional Law II - State Organization	The main normative contents of the Constitution are basic rights and state organization. This course focuses primarily on national organizations. In addition to enlightening students' understanding of national organizations, the teaching objectives also clarify the boundaries of the separation of powers, the relationship between state agencies, and the legitimacy of democracy.	2	B	Institute of the Law of the Sea	SDG2

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2023	1112	Master	1	M71013G4	A	The Human and Organisational Factors Involved With in Marine Casualties	According to a survey by the International Maritime Organization (IMO), more than 80% of maritime accidents in recent years are caused by human factors. In order to avoid similar accidents from happening, a deep understanding of the role of human factors in accidents, an analysis of how these factors occur, and how to learn from past accidents to find ways to remedy the situation are crucial to the effectiveness of the remedial measures taken. . In the past, most studies on human factors focused on the mistakes of front-line workers, but the underlying factors that led to these mistakes were rarely investigated. So much so that even if all front-line staff are replaced, similar accidents continue to occur. It turns out that the root of the problem is hidden in the company's management level, or even the decision-making level, which exposes on-site staff to extremely easy to make mistakes or does not allow the slightest error. working environment. Therefore, the main purpose of this course is to enable students to correctly understand the role and impact of these individual and organizational factors (HOFs) in maritime accidents.	3	B	Department of Merchant Marine	SDG4,SDG16
2023	1112	Master	1	M3B012GJ	A	Introduction to Inorganic Chemistry (II)	In addition to explaining the basic knowledge of inorganic chemistry, the course will also introduce molecular bonding and acid-base theory as well as basic solid-state chemistry, coordination chemistry and bioinorganic chemistry concepts. The imparting of inorganic chemistry knowledge also provides students with an understanding of related courses and research.	2	B	Department of Bioscience and Biotechnology	SDG1,SDG4
2023	1112	Bachelor	2	B8102Q84	A	FORTRAN Computer Language	understanding the fundamentals of the Fortran language and programming.	3	B	Department of Marine Environmental Informatics	SDG4,SDG10,SDG9,SDG5
2023	1112	Bachelor	2	B7302E7F	A	Airline Business and Management	This course focuses on the introduction of air passenger operations, operations, and management topics. The main focus of the content is airlines, and its branches are the knowledge introduction to the value chain links extended by airline passenger operations, such as aircraft manufacturers, airport passenger operations, etc. It is hoped that through the systematic introduction in the classroom, event guidance and triggering, and industry-university contact activities, students taking the course can familiarize themselves with the basic and extended knowledge of air passenger transportation.	3	B	Department of Shipping and Transportation Management	SDG4,SDG9
2023	1112	Master	1	M7421807	A	German for Law Student	Learn advanced German pronunciation and grammar Learn German in simple terms	2	B	Institute of the Law of the Sea	SDG4,SDG17
2023	1112	Master	2	M74221RV	B	Code Of Criminal Procedure	The goal of this course is to enable students to understand the principles and basic principles of criminal procedure, and to establish an overall concept of the proceedings.	2	A	Institute of the Law of the Sea	SDG10,SDG16
2023	1112	Master	1	M6801ISD	A	Intelligent Spatial Decision Support System	Introduction to Intelligent Spatial Decision Support System,ISDSS	3	B	Department of Transportation Science	SDG4,SDG9
2023	1112	Bachelor	2	B6D02R44	A	Auxiliary Machinery	By introducing the basic principles and functions of various important ship auxiliary engines, students will be able to quickly grasp the situation and take charge of their own affairs even if they are faced with a power field system that they have never been exposed to in the future career of marine engineers. .	3	A	Department of Marine Engineering	SDG1,SDG9,SDG11,SDG13,SDG10,SDG7,SDG3,SDG4,SDG6
2023	1112	Master	1	M6821I38	A	Seminar	Cultivate our students' ability to conduct research, present presentations, write papers and research reports; increase students' ability to think logically and use scientific methods to solve problems; and strengthen students' tolerance for frustration.	1	A	Department of Transportation Science	SDG4
2023	1112	Bachelor	1	B5101W37	A	Buoyancy & Stability	The lessons are provided for those students of naval architecture/ship technology at initial years on undergraduate degree courses. They give those students an awareness of basic principles of ship buoyancy, stability and anti-flooding for dealing with problems of ship buoyancy, stability and the loading and safe operation of ships.	3	A	Department of Systems Engineering and Naval Architecture	SDG4,SDG14,SDG13
2023	1112	Bachelor	3	B5103K2U	A	Resistance and Propulsion	Students taking the course: 1. Understand the formation and types of ship resistance 2. Familiar with ship model testing and resistance estimation 3. Ability to estimate actual ship resistance 4. Understand the operating principles of the propulsion system 5. Understand the relationship between main engine horsepower, propeller movement and hull resistance 6. Understand the cavitation phenomenon	3	A	Department of Systems Engineering and Naval Architecture	SDG4
2023	1112	Master	1	M3B010HH	A	English Writing for Research Publications in Science and Technology	The course aims to help students express their ideas out onto the page in clear and coherent English. In addition to teaching students the fundamental principles to better writings, the course offers substantial practice exercises to help them improve their own prose and revise it effectively.	2	B	Department of Bioscience and Biotechnology	SDG4,SDG10
2023	1112	Bachelor	4	B810419E	A	Synoptic Meteorology	Understanding various weather phenomena and principles is the goal of this course	3	B	Department of Marine Environmental Informatics	SDG4,SDG11,SDG13
2023	1112	Bachelor	2	B8122086	A	Engineering Mathematics	This course mainly studies linear algebra, vectors, Fourier analysis and partial differential equations. This is one of the minimum mathematical tools that science and engineering students need after completing freshman calculus.	3	A	Department of Marine Environmental Informatics	SDG4
2023	1112	Bachelor	3	B8103A56	A	Atmospheric Dynamic	present the physical principles and dynamics related to atmospheric motions	3	B	Department of Marine Environmental Informatics	SDG4,SDG13
2023	1112	Bachelor	3	B68032NY	B	Navigation Simulation and Implementation	This simulation course introduces the basic functions of aviation, high-speed rail and ship maneuvering simulators And understand the dynamic phenomena and effects caused by aircraft, high-speed rail, and ships being affected by air, railway, ocean wave action and steering. And use simulators and physical remote control ships, ROVs and aircraft (aerial drones) to engage in virtual reality and metaverse and actual exercises Enable students to clearly understand the functions and operating principles of the simulator 1. Practical simulation software for aircraft (air transportation), high-speed rail (land transportation), and ship operation (sea transportation) 2. Physical remote control underwater positioning system and unmanned vehicle ROV (drilled in swimming pool) 3. Physical aerial camera (drilled in the technology building) 4. Drone license exam guidance (instructions for general and operating license exams) 5. Virtual Reality VR/Metaverse Applications and Principles	3	B	Department of Transportation Science	SDG14
2023	1112	Bachelor	3	B51032BP	A	Automation Production Management in Shipyards	Ships are not mass-produced and sold products. Even for ships of the same type, there will still be considerable customization needs. In addition, the construction environment and machinery of shipyards are also different from other large factories. The focus and implementation of production management The methods are also different. The purpose of this course is to allow students to understand the ship production and manufacturing environment, needs and constraints of today's shipyards through course explanations, actual visits to shipyards, group discussions, and actual contact with on-site engineers. How to improve the efficiency of production management automation in shipyards.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG14,SDG9
2023	1112	Bachelor	2	B5102P17	A	Electronics	The course offers student a basic knowledge of electronic devices, including sminconductors, diodes, BJT transistor, FET transistor, operation amplifier, functional generators	3	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG4
2023	1112	Bachelor	1	B9E01U43	A	Applied Statistics	This course is mainly aimed at cultivating students' basic concepts of statistics, so as to lay the foundation for students' ability to conduct inductive analysis, synthesis and judgment of data. It also aims to familiarize students with commonly used computer software packages in statistics, so that they can flexibly apply various skills in subsequent Relevant courses and practices.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4

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2023	1112	Bachelor	2	B76021S2	A	World food culture	1. Understanding the importance and the definition of food culture 2. Acquired related research in Eastern and Western food culture 3. Be interested in food culture	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG12,SDG17
2023	1112	Bachelor	3	B7323B84	A	Marine Insurance	The objective of this course is to help students grasp solid concept of marine insurance regulations. This class will also focus on various case studies as well as intra-class discussions on Maritime Act.	2	A	Department of Shipping and Transportation Management	SDG14,SDG17
2023	1112	Bachelor	3	B9E0337V	A	Animation Design	1. Develop basic concepts of video editing 2. Improve the technical and practical capabilities of video processing	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG11
2023	1112	Bachelor	3	B3B02463	A	Biostatistics	To equip students with the ability to use basic statistical methods to process scientific data.	3	A	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	1	B3B01D46	A	Marine Biology	This course aims to reinforce and enhance students' enchantment with marine life while providing a rigorous introduction to marine biology.	3	B	Department of Bioscience and Biotechnology	SDG14,SDG17
2023	1112	Bachelor	1	B3B210O0	A	Biology Lab.	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	A	Department of Bioscience and Biotechnology	SDG4,SDG15,SDG14
2023	1112	Bachelor	1	B0121T54	A	Constitutional Law	This course aims to investigate the constitutional function of protecting individual"""""s human rights and its role in a democratic political system from the perspectives of political philosophy and constitutionalism. The course will discuss values, theories and institutions of constitution law. Finally it will also research on correlation between constitutional institutions and protection of human rights.	2	A	Bachelor Degree of Ocean Law and Policy	SDG1,SDG4,SDG3,SDG5,SDG10,SDG16,SDG8
2023	1112	Bachelor	1	B01211RY	A	Civil Law: General Principles	The objective of this course is to help students grasp solid concept of the general principles of civil code regulations. This class will also focus on various civil code case studies as well as intra-class discussions on related hypo exercise.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG5
2023	1112	Bachelor	1	B01211RW	A	Criminal Law: General Principles	This course aims to guide students to understand the basic knowledge of the general principles of criminal law and assist students in reading relevant textbooks independently.	2	A	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1112	Bachelor	2	B6D02S99	A	Marine Engineer's English	Upon completing this course students are expected to be willing to learn and practice themselves, in order to communicate in English clearly and concisely in written and oral forms using appropriate technical and formal vocabulary and formats.	3	B	Department of Marine Engineering	SDG1,SDG7,SDG16,SDG13,SDG4
2023	1112	Master	1	M0201A46	A	Food Toxicology	What you will be able to do after this course: Enhance basic principles of toxicology in food Apply those principles to identify hazard contaminants and understand its mode of action	3	B	Institute of Food Safety and Risk Management	SDG3,SDG4
2023	1112	Master	1	M6601HAW	A	Hydrogen Economy and Marine	Decarbonization, carbon neutrality, etc. are currently important topics. This course aims to understand the current and future issues related to maritime transportation, which is facing energy, economic and environmental challenges at the same time, gradually starting from improving energy efficiency, then using appropriate alternative energy sources, and even welcoming the advent of the hydrogen economy era. This is to seek a way for the maritime industry to simultaneously comply with realistic operating conditions and co-prosper with the global environment and economic interests.	3	B	Department of Marine Engineering	SDG1,SDG7,SDG9,SDG11,SDG13,SDG17,SDG16,SDG14,SDG12,SDG10,SDG8,SDG6,SDG3,SDG4
2023	1112	Doctorate	1	D8101251	A	Aquatic Chemistry	The purpose of this lecture is to introduce the theory and mechanism affecting the species, distribution and geochemical cycles of chemical constituents in aquatic environment.	3	B	Department of Marine Environmental Informatics	SDG6
2023	1112	Bachelor	3	B730350K	A	Business Strategy and Logistic Management	Provide students with a thorough grounding in contemporary logistics management and the practice of business strategy.	3	B	Department of Shipping and Transportation Management	SDG8
2023	1112	Bachelor	1	B7321N24	C	Accounting	Form from the business activities, organizational patterns and management organizations that accounting position in the business. The basis of the accounting process and accounting transaction processing and the importance of standardizing the format of accounting and e-business and accounting needs of the times in science and technology and applications, to assist students in developing professional knowledge of accounting and information technology capabilities, establish a solid professional accounting	3	A	Department of Shipping and Transportation Management	SDG8,SDG9
2023	1112	Master	1	T4201L7Q	A	Innovative Food Science and Technology	This course enables students to acquire the processing principles and new technologies of food processing and preservation.	3	B	Department of Food Science	SDG4,SDG11,SDG12,SDG9
2023	1112	Master	1	T4201A3F	A	Special Topics on Food Industry	It is expected that students who take the course will have a deeper understanding of the past, current situation, and future development of the rapidly transforming food industry after actively participating in the course activities.	3	B	Department of Food Science	SDG3,SDG9
2023	1112	Bachelor	2	B8102925	A	Fluid Mechanics	Fluid mechanics is a branch of applied mechanics (應用力學) concerned with the behavior of liquids and gases at rest or in motion. Students will studies fundamental concepts of the discipline (學科).	3	A	Department of Marine Environmental Informatics	SDG3
2023	1112	Bachelor	3	B73031A2	A	Management of Cross-strait Logistics and Clearance Practice	The purpose of this course is to explore customs clearance and logistics management issues for various goods between the two sides from the perspective of cross-strait cargo circulation practices. In view of the increasingly close economic and trade exchanges between the two sides, whether it is promoting cross-strait trade or establishing a cross-strait international logistics model, it is necessary to have an understanding of the customs clearance regulations and practices of both sides before they can be implemented. Against this background, the design of this course can be roughly summarized into three key points: explaining the relevant theories of international logistics, introducing cross-strait cargo customs clearance regulations and practices, and introducing the construction and customs clearance of cross-strait logistics models from the perspective of logistics management. actual operating conditions. It is hoped that through the implementation of this course, students can understand the various logistics models that have been established in cross-strait trade, including: customs clearance procedures and warehousing management of import and export, transshipment, re-export, express delivery, transshipment, triangular trade and other goods. and international logistics value-added services and other businesses.	2	B	Department of Shipping and Transportation Management	SDG4,SDG8
2023	1112	Master	1	M86011C2	A	Sedimentology and Stratigraphy	Students will be trained to familiar with the classification of sedimentary rocks, structures, textures and their origin and to be capable of classifying strata and performing basin analyses.	3	B	Institute of Earth Sciences	SDG8
2023	1112	Bachelor	3	B7303MSI	A	Marketing on Shipping Industry	This course applies marketing concepts, analyses and tools, to situations in which the customer is an organization such as a company, an institution, or a government agency.The course is organized aroud five basic modules as follows: ：(1)fundamentals of service marketing and management(2)liner shipping marketing strategy；(3) the developing and trend of international liner shipping(4)marketing strategy of three major liner service routes；(5)business professional speech	2	B	Department of Shipping and Transportation Management	SDG4,SDG8,SDG17

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2023	1112	Doctorate	1	D89011CH	A	Scanning probe microscopy	The scanning tunneling microscope (STM) and the atomic force microscope (AFM), both capable of visualizing and manipulating individual atoms, are the cornerstones of nanoscience and nanotechnology today. The inventors of STM, Gerd Binnig and Heinrich Rohrer, were awarded with the Nobel Prize of physics in 1986. Both microscopes are based on mechanically scanning an atomically sharp tip over a sample surface, with quantum-mechanical tunneling or atomic forces between the tip and the atoms on the sample as the measurable quantities. This lecture presents the principles of STM and AFM, and the experimental details.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Master	1	M8601UD2	A	Environment and Seismology	From the point of view of environmental education and hazard reduction, the relationship between earthquakes, earthquake warning, earthquake forecast, earthquake prediction, earthquake disasters, earthquake protection and the hazard reducing system will be introduced.	3	B	Institute of Earth Sciences	SDG4
2023	1112	Bachelor	4	E42041J3	A	Processed Meats	Recognize knowledge of Meat Science	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	B7601N38	A	Economics	After completing the Economic course, students will have deeper understanding and capabilities of economics and their economy, help them learn about practice of different forms of knowledge and techniques in tourism industry and jobs. Depending on the situation of COVID-19 pandemic issuing by government or out university, teaching methods may change to distance learning by Tronclass platform. The weekly schedule had changed to 16+2 weeks in 111 academic year.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG1,SDG8,SDG16,SDG13,SDG12,SDG10,SDG9,SDG4,SDG3
2023	1112	Master	1	M86012QQ	A	Industry Practice of Petroleum geochemistry and oil spill environmental forensics (I)	This course enables students to have a basic understanding of the petroleum geochemical analysis process, the extraction of organic matter and the operation of commonly used geochemical analysis instruments, and to have an in-depth understanding of the use and identification of biological indicators and the comparison technology of maps. Through practical operational analysis, it helps students gain a basic understanding of environmental forensics or organic matter identification processes, which is helpful for future career development.	3	B	Institute of Earth Sciences	SDG4,SDG15,SDG14
2023	1112	Master	2	M0202I4J	A	Seminar	Train graduate students in their ability to collect, organize, and present documents, and strengthen cross-field learning and interaction.	1	A	Institute of Food Safety and Risk Management	SDG3,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG9,SDG8,SDG7,SDG6,SDG5,SDG4
2023	1112	Master	1	T4X012CA	A	food safety management	Understand the food safety management issues in the process of food from raw materials to production to distribution, and how to use management tools to achieve the goal of ensuring food safety.	3	A	Institute of Food Safety and Risk Management	SDG3,SDG14,SDG11
2023	1112	Bachelor	3	E42030WV	A	Hazard Analysis and Critical Control Point	In order to enable students taking the course to have a comprehensive understanding of the food safety control system, this course briefly introduces the principles and applications of food Good Hygiene Practices (GHP), Hazard Analysis Critical Control Points (HACCP) and examples of plan writing with examples. . We hope to guide students into the field of food safety control systems through concrete and detailed methods, starting from the shallower to the deeper, step by step and writing examples. In addition to building students' abilities in food production, quality control, information collection and oral presentations, the relevant content of this course It can provide students with complete concepts and reference materials when they enter the workplace and need to establish the system.	2	B	Department of Food Science	SDG9
2023	1112	Bachelor	4	B8104U90	A	Remote Sensing of Environment	After completing this course students are able to describe the applications of remote sensing on marine environmental issues	3	B	Department of Marine Environmental Informatics	SDG4,SDG10,SDG9
2023	1112	Bachelor	2	B6D02925	A	Fluid Mechanics	First, this course is to educate students to understand the basic properties of fluid and acting force between them each other. Second, found the analysis method of fluid mechanics by the basic mathematics model derivation and train students to solve engineering problems. Finally, introduce the application of fluid mechanics in the turbo-machines.	3	A	Department of Marine Engineering	SDG4,SDG9,SDG14,SDG13,SDG5
2023	1112	Bachelor	2	B6D02088	A	Engineering Mathematics (II)	This course provides a comprehensive, thorough, and up-to-date treatment of engineering mathematics. It is intended to introduce students of engineering, physics, mathematics, computer science, and related fields to those areas of applied mathematics that are most relevant for solving practical problems. A course in elementary calculus is the sole prerequisite.	3	A	Department of Marine Engineering	SDG6
2023	1112	Bachelor	4	B6D04NN7	A	Advance Practice at Sea	Go to a commercial ship to actually experience the main engine and auxiliary engine on board, as well as ship operation, maintenance and repair	9	B	Department of Marine Engineering	SDG4,SDG13,SDG14,SDG16,SDG6
2023	1112	Master	1	M86014JM	A	Underwater Archaeology Technology	Now underwater archaeology is hot issue. The “Titanic” shipwreck in the Atlantic Ocean, the “General Number One” shipwreck in the Penghu Island water and the “Nanhai One” shipwreck in the South China Sea are concerned by many people. The main objective of this course is to combining the knowledge of earth science and underwater archaeology. Through a selection of well-known cases, the students will know the history of underwater archaeology and be asked to learn various skills such as dating techniques in archaeology. They will have the opportunity of broadening their view in different field.	2	B	Institute of Earth Sciences	SDG11,SDG14
2023	1121	Master	1	M35014LN	A	Financial Analysis and Management	This course provides basic concepts and theoretical models of financial management and their application to the process of corporate value creation. Let students to understand the financial analysis and management.	3	B	Institute of Applied Economics	SDG1,SDG8,SDG16
2023	1112	Master	1	M3501CAG	A	Marine Leisure and Management	To enable students to understand the development trend of the marine leisure industry, and through teaching courses, group discussions, seminars, field trip and other teaching methods to enhance the students on the marine leisure industry management and business understanding.	3	B	Institute of Applied Economics	SDG8,SDG11,SDG14
2023	1112	Master	1	M3501B40	A	Time Series Analysis	The aim of this course is to provide participants with the knowledge necessary to handle modern time series techniques. Both univariate and multivariate models are considered with and without the stationary assumption. The estimators are found, their asymptotic distributions derived, and relevant regularity conditions analyzed. On this course we always attempt to provide simple examples that illustrate how the theoretical results are used and applied in practice.	3	B	Institute of Applied Economics	SDG1,SDG12,SDG3

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2023	1112	Master	1	M3501D7B	A	Coastal Zone Management and Community Development	Taiwan is surrounded by sea, and the sea and coast are connected. It is used for national defense and security, industrial development, leisure and entertainment, and academic research. Therefore, coastal management has become an important issue in the development of marine issues. In addition, most of Taiwan' s fishing villages are located in the border areas of the country. They are the places where fishermen live and rest. They are also areas with active fishing activities or strong fishery color. The development of fishing village communities varies depending on the local natural environment and resource conditions. It also gives fishing villages with different fishing activities different styles. In recent years, with the implementation of bills such as the Wetland Law and the Coastal Management Law, as well as the government's policies to promote rural regeneration and local creation, the development of fishing village communities in coastal areas has attracted attention. This course hopes to understand coastal management and development through theoretical and practical methods. The operation of community development, and the current situation of community development in fishing villages in Taiwan	2	B	Institute of Applied Economics	SDG3,SDG13,SDG14,SDG11
2023	1112	Master	1	M35012CL	A	Applied Microeconomic Analysis	(This course is designed for advanced Applied Microeconomics Methods. The course will focus on the topic of demand system and DEA model, related research papers will be studied in the class. The material will provide a foundation for applied research in economics. Pre course: Microeconomics and Econometrics.)	3	B	Institute of Applied Economics	SDG1,SDG2,SDG3,SDG12
2023	1112	Master	1	M33014M3	B	Sustainable aquaculture in Taiwan	To point out the current status, problems and measures in response to the development of sustainable aquaculture	3	B	Department of Aquaculture	SDG2,SDG12,SDG14
2023	1112	Master	2	M0402D91	A	Study on the Policy of Sea Power	The main goal of this course is to assist students in assessing sea power policy. The content will focus on (1) sea power policy in the context of geopolitics, (2) sea power policy in the light of developments in the law of the sea, (3) emerging regional issues, and (4) the strategies of the surrounding sea powers. This course is supplemented by relevant academic readings and cases to help students understand the core concepts and the current development of the sea powers.	2	B	Master Degree Program in Ocean Policy	SDG7,SDG9,SDG13,SDG16,SDG17,SDG14,SDG11,SDG8
2023	1112	Doctorate	1	D7301E7U	A	Advanced Topics in Shipping Operation Management	1.Understand the shipping market route planning and management strategies 2.Understand port operation and strategic management 3.Case studies	3	B	Department of Shipping and Transportation Management	SDG8,SDG13,SDG14,SDG9
2023	1112	Bachelor	3	B9E034PT	A	Design Thinking and Technological Innovation	In addition to introducing the main process, time schedule, overall planning and budget considerations of the exhibition design practice, this course introduces the design practice. At the same time, by showing the basic theory, constituent elements, planning and design process of design, as well as the explanation and discussion of related cases, the construction of professional knowledge of display design is carried out. Excellent cases of technological innovation will be added to the course, supplemented by demonstrations of classroom practice of space planning and design, in order to achieve the goal of combining theory and practice with technology.	3	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4,SDG11
2023	1112	Bachelor	3	B5203I24	B	Foundation Engineering	This course introduces the basic design methods and considerations of general foundation engineering. The content includes stratigraphic investigation, earth pressure and stability analysis of retaining walls, bearing capacity and settlement analysis of foundations, etc., so that students can understand general shallow foundations and deep foundations. Fundamentals of basic analysis and design.	3	A	Department of Harbor and River Engineering	SDG9
2023	1112	Bachelor	2	B5202262	A	Hydrology	Hydrology is a discipline of earth science that studies the occurrence, circulation, distribution, physical and chemical properties of water on the earth, and its relationship with all living things. This course is from an engineering perspective and applies hydrological principles to solve problems faced by humans in water resources development. In view of the changing characteristics of water in time and space, engineering hydrology attempts to simulate the relationship between the total volume of water and its time distribution during the hydrological cycle, as a standard for water resource engineering design, and to further understand the risks faced by engineering facilities.	3	A	Department of Harbor and River Engineering	SDG3,SDG4,SDG11,SDG13,SDG9
2023	1112	Bachelor	2	B8122T84	A	Probability and Statistics	An introduction to basic probability and statistical principles.	2	A	Department of Marine Environmental Informatics	SDG13
2023	1112	Bachelor	3	B5303R90	A	Introduction to Digital Communication Lab.	Verify the fundamental theory and techniques of digital communication systems via Matlab labs.	1	B	Department of Electrical Engineering	SDG3,SDG17,SDG14,SDG4,SDG8,SDG9
2023	1112	Doctorate	1	D81013T0	A	Special Topic in Marine Information System	This course will understand the development of foreign ocean information systems by studying recent journal articles. Individual discussions will also be held in class to enhance understanding of information systems theory and ocean-related issues.	3	B	Department of Marine Environmental Informatics	SDG4
2023	1112	Bachelor	4	B6D042WG	A	Advanced Marine Engineering Land Internship	This course mainly enables students to not only study in the classroom, but also have in-depth real-life workplace experience, apply the knowledge learned in the classroom to the workplace, or bring workplace issues back to the classroom to share with classmates.	3	B	Department of Marine Engineering	SDG5,SDG15,SDG10,SDG14
2023	1112	Master	1	M7301I07	B	Seminar on International Logistics Management	Examines the key principles, systems and techniques used to assure effective international logistics management.	3	A	Department of Shipping and Transportation Management	SDG8
2023	1112	Master	2	M7302E7T	A	Advanced topics in Air Cargo Transportation	This course would like to introduce and discuss some deeper topics in air cargo transportation. It aims to widen students' view for the environment, management and operation in air cargo services. It is hoped to help students to find some topics of future studies. This course follows the instruction of International Credit Program of Maritime College.	3	B	Department of Shipping and Transportation Management	SDG4,SDG9
2023	1121	Bachelor	1	E4A01V78	B	Ship Compass	This course is developed in compliance with the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass Magnetic and Gyro. Nautical compass includes two series: magnetic compass and gyro compass The magnetic compass teaching focuses on the difference between the magnetic difference and the self-difference between the earth, the ship hull and the compass induced by the magnet, and then applies it to the correction and calculation of the ship's compass. Gyrocompass teaching focuses on the pointing principle of the gyrocompass, the structure of the gyrocompass, error calculation, and the relationship between it and other navigational instruments. This enables students to understand the overall structure of the ship.	2	A	Department of Merchant Marine	SDG4
2023	1112	Master	2	M7302N75	A	Transportation System Analysis	Exploring various element/functions of transportation based system analysis concept, including passenger transportation, cargo transportation and intelligent transportation system.	3	B	Department of Shipping and Transportation Management	SDG9,SDG11
2023	1112	Master	1	M730150K	A	Green Shipping and Logistics Management	The aim of the course is to provide students with an advanced understanding and investigating the important issues on green shipping and logistics management, the current green shipping and logistics practices, and the academic research themes and future study directions.	3	B	Department of Shipping and Transportation Management	SDG14
2023	1112	Doctorate	1	D5301MD2	A	Technology of the Displaying Fabrication	Train students to recognize and understand the process technology of important optoelectronic displays and related materials such as liquid crystal flat panel displays, organic electroluminescent displays, plasma flat panel displays, and the basic operating principles of components.	3	B	Department of Electrical Engineering	SDG4,SDG9
2023	1112	Doctorate	1	D810160F	A	Organic Analytical Chemistry	This course is based on organic chemistry and analytical chemistry, introducing the chemical properties and analysis methods of various major organic compounds in the environment.	3	B	Department of Marine Environmental Informatics	SDG6,SDG14
2023	1112	Bachelor	3	B5303R89	A	Introduction to Digital Communications	Teach the fundamental theory and techniques of digital communication systems.	3	B	Department of Electrical Engineering	SDG3,SDG17,SDG4,SDG8,SDG14,SDG9

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2023	1112	Bachelor	2	B3202448	A	Biochemistry Lab. (I)	Skill for experimental technique of biochemistry	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B9E0138V	A	Local Culture and Community Development	1. This course uses teaching methods such as lectures, group discussions, on-site fieldwork and presentation of team results to cultivate students' knowledge of community creation, place creation and development of community settlements. 2. This course takes the university social responsibility practice field as the analysis and practice object. Learners must work as a team to produce and complete social design-related planning reports and learning results (for example: community redevelopment plans... etc.) based on the characteristics and problems of the field.), assist local governments in solving problems, and practice the university'_s social responsibilities!	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG11,SDG14
2023	1112	Bachelor	3	B51030FM	A	Introduction to Experimental Fluid Mechanics	Experiments and experimental approaches play a key role in the development of fluid mechanics. Therefore, students who wish to gain more understandings for fluid mechanics are advised to learn experimental techniques and perform fluids experiments. This course aims to introduce classic and illuminating experiments in fluids, and associated fundamental concepts, principles and technical knowledge. This course also provides the opportunity to perform experiments in the Fluid Mechanics Lab of HRE-NTOU.	3	B	Department of Systems Engineering and Naval Architecture	SDG4
2023	1112	Bachelor	4	B510436G	A	Industrial Training (II)	Off-campus internships are mainly through on-site implementation in related industries to apply what they have learned and to cultivate students' professional talents that meet industry needs.	9	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG4
2023	1112	Master	1	M7301F21	A	Law of Shipping Contract	To obtain the basic knowledge and concept of shipping contract in international shipping markets. Understanding the principles of shipping contract and be able to apply in practice.	3	B	Department of Shipping and Transportation Management	SDG14,SDG17
2023	1112	Bachelor	2	B9502Y1H	A	Instructional Internship for Subjects of Food Science	1. To understand the food science subject''s current teaching activities and classroom management practices. 2. Observe and observe the teaching of related subjects and analyze the procedures and steps of teaching activities. 3. Use teaching methods and strategies flexibly to design lesson plans. 4. Validate teaching theory or theories through simulated teaching experiences. 5. Try to establish their teaching model through self-reflection and joint discussion.	2	H	Teacher Education Center	SDG4
2023	1112	Master	1	M890151C	A	Optoelectronic Materials	Introduces crystal structure and characteristic analysis, applies it to optical system design and discusses the impact of heat on components.	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG10,SDG5
2023	1112	Bachelor	1	E4Q01S9A	A	Marine Engineer''s English	Training marine engineering students to build up their comprehensive of English to cope with STCW required by 1995 IMO meeting. Effective communication is a mandatory requirement of the IMO STCW Convention to ensure the safety of crews and vessels. This course is to develop students from marine engineering department with essential language skills.	2	A	Department of Marine Engineering	SDG9,SDG13,SDG17,SDG14,SDG3,SDG6,SDG8,SDG7,SDG4,SDG1
2023	1112	Bachelor	1	E4Q01S9A	B	Marine Engineer''s English	Training marine engineering students to build up their comprehensive of English to cope with STCW required by 1995 IMO meeting. Effective communication is a mandatory requirement of the IMO STCW Convention to ensure the safety of crews and vessels. This course is to develop students from marine engineering department with essential language skills.	2	A	Department of Marine Engineering	SDG8,SDG17,SDG13,SDG7,SDG6,SDG4,SDG3,SDG1,SDG9,SDG14
2023	1112	Bachelor	2	B71021DT	A	Deck machinery and Steering gear system	To conform to the 1.1.5 and 1.1.6 standard convention courses of the IMO model course 7.03, two credits are given to Deck Machinery and Steering Gear System in the professional navigation operation and compulsory courses. With this course, students will learn the operation and performance analysis of deck machinery and know how to use it freely after boarding a ship.	2	A	Department of Merchant Marine	SDG4
2023	1112	Bachelor	1	B7121547	B	Geo-Navigation	Based on the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.2.4 The Use of Routing, this course takes the necessary knowledge and skills into account to teach students learning about the Geo-Navigation and being a recognized seafarer for Operational and Management levels. It is complying with the maritime professional competence standard of navigation on the "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 2010".	2	A	Department of Merchant Marine	SDG4,SDG8,SDG17
2023	1112	Bachelor	1	B7121L66	B	General Physics	In addition to enabling students to establish the basic concepts of physics and understand their development, they can also further apply relevant knowledge flexibly.	2	A	Department of Merchant Marine	SDG4,SDG10,SDG5
2023	1112	Bachelor	1	B7121547	A	Geo-Navigation	Based on the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.2.4 The Use of Routing, this course takes the necessary knowledge and skills into account to teach students learning about the Geo-Navigation and being a recognized seafarer for Operational and Management levels. It is complying with the maritime professional competence standard of navigation on the "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 2010".	2	A	Department of Merchant Marine	SDG4,SDG8,SDG17
2023	1112	Bachelor	1	E4A011KI	A	Leadership and Bridge Resource Management	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.2.3 Effective Bridge Teamwork Procedures and STCW78/10 CODE A, taking into account the teaching of relevant necessary knowledge or skills, and arranges the following course content . The BRM course carefully analyzes various types of accidents, combines some actual situations that may often occur or be encountered by ships during navigation, makes full use of human and material resources on the bridge, and organizes ship drivers to further learn and clarify their respective daily tasks. Obligations and responsibilities in bridge assembly work, correct thinking and work attitude; correctly use various equipment on the bridge to maintain normal and safe navigation of the ship	2	A	Department of Merchant Marine	SDG1,SDG8,SDG5,SDG4
2023	1112	Bachelor	2	B9D024LA	A	British and American Short Stories (Intermediate)	Introducing students to the appreciation of English literature, training their reading comprehension, and inspiring their thinking competence.	2	B	Institute of Applied English	SDG3,SDG4,SDG5
2023	1112	Bachelor	1	B3201L6N	A	General Chemistry(Ⅱ)	General chemistry is a basic course in life sciences. This course is intended to introduce and discuss the basic principles of general chemistry and its experimental methods from a wide range of angles in the first year of college, in order to lay the foundation of chemistry for undergraduate students and inspire them to have an understanding of life. scientific interest.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B39041OM	A	Food Supply Chain Management	The Food Supply Chain Management course manages food safety from the perspective of supply chain management, allowing students to understand management theory and how to apply it to the food industry in practice.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B73031AO	A	Practice of International Air Cargo Service	The design of this course is aimed to educate and develop the interest of the young talents in international airfreight operations and market. After completing this course the students should be equipped with basic knowledge and skill of global airfreight operations.	3	B	Department of Shipping and Transportation Management	SDG4,SDG17,SDG14,SDG9,SDG7

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2023	1112	Master	1	T4Y014A5	A	Case Study in Artificial Intelligent System	1. Understand the past and current development of artificial intelligence 2. Understand the basic concepts and core technologies of artificial intelligence 3. Understand the basic structure and application of expert systems 4. Concepts related to fuzzy theory, artificial neural networks and genetic algorithms 4. Introduction to futurology 5. Introduction to the Metaverse 6. Discussion of artificial intelligence examples in relevant industries 6. Discussion of relevant smart space decision-making papers and technical reports at home and abroad 7. The future development of AI 8. Master's degree thesis writing method and summary applied to artificial intelligence	2	B	Department of Transportation Science	SDG4,SDG9,SDG11
2023	1112	Bachelor	2	B76022Z8	A	Programming Language for Data Processing	1) IT environment of industry 2) Learn Web design 3) Learn App develope 4) Computational Thinking & programs concept. 5) Get certified of Google Digital Garage	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG8,SDG9
2023	1112	Bachelor	3	B9E032TP	A	Cultural and Creative Intellectual Property	This course will equip students with the knowledge of major IP laws and legal practice with a particular emphasis on culutral and creative industries.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG1,SDG4,SDG9,SDG17,SDG16,SDG12,SDG11,SDG10,SDG8,SDG2
2023	1112	Master	1	T46011ZJ	B	Civil Code-general Provisions of Obligations	Civil law is an important standard for resolving private disputes, and debt collection is an important area of civil law. The purpose of this course is to give students an overall understanding of the system of debt collection in civil law. In addition to learning methods for resolving disputes, they can also As a basis for more in-depth study of private law.	2	A	Institute of the Law of the Sea	SDG1,SDG11,SDG17,SDG16,SDG12,SDG10,SDG2,SDG5,SDG8,SDG9,SDG4
2023	1112	Bachelor	1	B7601N24	A	Accounting	understanding accounting principles and concept understanding and applying accounting cycle preparing financial statement analyzing the financial statements	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG8,SDG12
2023	1112	Bachelor	3	B5703IA4	B	Introduction to Cryptography and Its Application	This course explains basic cryptography-related principles and applications in order to connect with courses such as network security, information security, software system security, cryptography theoretical foundations, etc., and serves as the basis for information security-related topics.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Bachelor	2	B7102K05	B	Ship Management and Safety	This course follows the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.1 ENSURE COMPLIANCE WITH POLLUTION-PREVENTION REQUIREMENTS, taking into account the transfer of relevant necessary knowledge or skills. This course focuses on developing students'' basic skills in ship safety, cargo characteristics and safety, crew and fleet management, so as to understand the knowledge and skills of modern ship management and safety, so as to have the need for employment or research.	2	B	Department of Merchant Marine	SDG4,SDG8,SDG13,SDG16,SDG17,SDG14
2023	1112	Bachelor	4	B71041K0	A	Internship	Through half-year or one-year workplace practical training, students can understand the combination of information theory and practice, and allow students to participate in the practical application and implementation of enterprises, so that they can understand business operations in order to enhance students' adaptability and competitiveness when entering the workplace in the future.	0	B	Department of Merchant Marine	SDG1,SDG6,SDG8,SDG10,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG9,SDG7,SDG5,SDG2,SDG3,SDG4
2023	1112	Bachelor	3	B7103E86	A	Practice of Navigation	This course complies with the International Maritime Organization (IMO) Model Course 7.03-1.1.7 METEOROLOGY Meteorology Contains:1.1.7.1~12 Learn meteorological theory and the characteristics of various weather systems, including tropical storms and avoiding storm centers and Knowledge of dangerous quadrants, understanding weather analysis and forecasting, tropical cyclone characteristics and avoidance, and meteorological data search Integrate sources and the operation and operation of relevant weather navigation systems currently used by ships to enhance ship navigation Safety is the goal	2	B	Department of Merchant Marine	SDG13,SDG17
2023	1112	Bachelor	3	B7103T69	A	Practice of Ship Handling	Apply the theory of ship maneuvering in practice	2	B	Department of Merchant Marine	SDG1,SDG4,SDG5
2023	1112	Bachelor	2	B71021DT	B	Deck machinery and Steering gear system	In order to comply with the IMO model course 7.03 1.1.5 1.1.6 standard convention courses, two credits will be awarded for navigation professional operations and required courses on deck machinery and steering systems. Enable students to learn the operation and performance analysis of various deck machinery, so that students can use it freely after boarding the ship.	2	A	Department of Merchant Marine	SDG4
2023	1112	Bachelor	1	B7721N38	A	Economics	The course is designed for first-year undergraduate two-semester 6-credits economics class. This is the second semester and courses will focus on the topic of Macroeconomics. The material will provide a foundation of economics on National income, unemployment, Monetary market, and international economics. Pre course: none.	3	A	Bachelor Degree Program in Ocean Business Management	SDG1,SDG5,SDG9,SDG17,SDG12,SDG11,SDG10,SDG8,SDG3
2023	1112	Bachelor	3	B7703444	A	Production and Operations Management	Operations management is the core activity in a company, including forecasting, capacity planning, facility layout, quality management, scheduling, etc. This course provides students the basic knowledge about these issues and enables them to develop preliminary skills of applications.	3	A	Bachelor Degree Program in Ocean Business Management	SDG9,SDG13,SDG11,SDG12
2023	1112	Bachelor	2	B7722J40	A	Statistics	The goal of this course is to help students: 1. Cultivate students’ abilities of observation, reasoning, analysis and judgment; 2. How to collect data and how to analyze the rules for decision-making, so that students can have an overall conceptual understanding of statistics; 3. Will use statistics to achieve the best results in academic research or practical operations.	3	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	1	B7721M97	A	Calculus	This course is a one-year course, divided into two semesters, and is taught to first-year undergraduate students. This course aims to enable students to learn the basic knowledge of differential and integral calculus, develop their application abilities in formulating, solving and interpreting problems, and introduce the basic theory of calculus and its various applications in business, economics, and social sciences.	2	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	2	B77023D7	A	Maritime Industry Trainee	The concept of traveling thousands of miles is worth reading thousands of books, experience it through visits and learn through feelings.	1	B	Bachelor Degree Program in Ocean Business Management	SDG8

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2023	1112	Bachelor	1	E4A011KH	B	Electronic Chart Display and Information System	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Charter, and complies with the International Maritime Organization (IMO) Model Course 7.03-1.4 (Use of ECDIS to maintain safety of navigation), and Model Course 1.27 – Specifications for the operational use of operational-level electronic chart display and information systems (Operational Use of ECDIS). Courses are planned taking into account the teaching of relevant necessary knowledge and skills, so that students can not only understand the various regulations of IMO/IHO for this system, but also have the basic knowledge and necessary skills to operate the system.	2	A	Department of Merchant Marine	SDG1,SDG8,SDG4
2023	1112	Master	2	M04024NS	A	Oceanic Technologies and Intellectual Property Laws (II)	Facing challenges posed by the emerging oceanic technologies, this course is aimed at helping students explore the IP legal issues and tech policies.	2	B	Master Degree Program in Ocean Policy	SDG7,SDG14,SDG17,SDG16,SDG13,SDG8,SDG9,SDG12,SDG11
2023	1112	Master	2	M3212J25	A	Thesis	Enable students to learn how to write essays.	3	B	Department of Food Science	SDG4
2023	1112	Master	2	M3222J25	A	Thesis	Enable students to learn how to write essays.	3	A	Department of Food Science	SDG4
2023	1112	Master	1	M3221I4A	C	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG8,SDG9
2023	1112	Bachelor	4	B39041NV	A	Food preservation technology	Familiar with the deterioration and spoilage of agriculture food product and the need of preservation. To familiarize the principles and methods of preserving perishable food, and to train the students for the ability to keep sustainable resource.	2	B	Department of Food Science	SDG4
2023	1112	Doctorate	1	D8601570	A	Geochemistry	Understand the migration of geochemical elements on the earth, mainly including the circulation process in the lithosphere, atmosphere and hydrosphere. This class will introduce the main geochemical analysis methods and introduce the chemical element indicators used in earth science. Students will The meaning of each indicator is presented in class. This course will further explore geochemical indicators. In addition, speakers will be invited to introduce the application methods of isotopes in the field of geochemistry.	3	B	Institute of Earth Sciences	SDG4,SDG11
2023	1112	Master	1	M86014AH	A	Petroleum Geochemistry	(1) Understand the migration of organic geochemical elements on the earth, and further explore geochemistry and bioindicator compounds, and understand how to use bioindicator compounds to study organic matter cycles in modern and past times. (2) Understand important energy sources and learn to cherish limited energy sources. (3) Understand the currently commonly used oil and gas exploration technologies and geochemical analysis methods.	3	B	Institute of Earth Sciences	SDG4
2023	1112	Master	1	M7301H98	A	Seminars on International Trade	The course will provide critical insights to students seeking to understand the basic principles, best practices, current challenges and future development in global multilateral, regional, and bilateral (Taiwan-US、Taiwan-China) economic and trade systems. This knowledge is key for any student aspiring for a successful career within the shipping and logistics industries.	3	B	Department of Shipping and Transportation Management	SDG1,SDG10,SDG13,SDG17,SDG12,SDG9,SDG2,SDG7
2023	1112	Master	1	M7301F09	B	Shipping Management	1. Enhance the basic shipping management knowledge and application abilities 2. Enhance critical analysis abilities for shipping management problems	3	A	Department of Shipping and Transportation Management	SDG9,SDG14
2023	1112	Bachelor	2	B77023XM	A	Presentation Skills and Etiquette Ⅱ	This course guides students to use presentation making as an extension of basic concepts, and incorporates elements of stage manners and etiquette to integrate presentation skills and body postures. It is expected that when students give various presentations, they will not only show rich presentation content in the oral expression part, but also be able to use appropriate style and manners to show students' self-confidence and diverse creativity, and learn to master the essence of presentation production. Improve presentation skills and abilities through internal logical thinking and external posture and achieve the following goals: 1. Improve interpersonal communication and oral expression judgment: through classroom sharing, we will understand the appropriateness and basics of oral expression in communicating with others and interpersonal relationships, so as to increase the persuasiveness of presentations, and cooperate with the practice of presentations to develop students Ability to communicate and express effectively. 2. Increase beauty, beauty, and typhoon abilities: Plan individual presentations and sharings on stage in class, along with beauty training (attire, gestures, standing and sitting postures, etc.) to train students' courage on stage. and robustness. 3. Improve students' personal etiquette and international concepts: Cultivate the connotation of international etiquette, understand how to treat others with respect and treat others as guests, and correctly apply the relevant norms of international etiquette. To understand the international etiquette related matters of different countries, races, and religions, to achieve mutual respect and harmonious coexistence, and to create a high-quality personal image. 4. Establish sustainable learning habits: Teach students to actively seek knowledge and solutions according to	1	B	Bachelor Degree Program in Ocean Business Management	SDG3,SDG4,SDG5,SDG8
2023	1112	Bachelor	1	B7701H54	A	Commercial Law	1. Introduce laws such as Company Act , Maritime Act ,Insurance Act and Negotiable Instruments Act. 2. Have a general and basic understanding of the laws governing commercial behavior through the discussion of judicial cases.	2	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	2	B7102K05	A	Ship Management and Safety	This course follows the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.1 ENSURE COMPLIANCE WITH POLLUTION-PREVENTION REQUIREMENTS, taking into account the transfer of relevant necessary knowledge or skills. This course focuses on developing students'' basic skills in ship safety, cargo characteristics and safety, crew and fleet management, so as to understand the knowledge and skills of modern ship management and safety, so as to have the need for employment or research.	2	B	Department of Merchant Marine	SDG4,SDG8,SDG14,SDG17,SDG16,SDG13
2023	1112	Bachelor	2	B7702J6C	A	Organizational Behavior	Business organizations are undergoing tremendous changes. This curriculum is gradually developed around from micro-level (motivating individuals), broaden to lead a team, and finally to macro-level (reshaping organizations). The course then will pass organizational behavior knowledge, through empirical evidence, focusing on the real problems faced by the organization and trying to solve them through what the students will have learned.	3	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	1	B6821M97	B	Calculus	The objectives of this course are to provide a sound, intuitive understanding of basic calculus concepts for the students who pursue careers in business and engineering and to teach techniques of differential and integral calculus without sacrificing mathematical accuracy.	3	A	Department of Transportation Science	SDG4
2023	1112	Bachelor	1	B6821M97	A	Calculus	The objectives of this course are to provide a sound, intuitive understanding of basic calculus concepts for the students who pursue careers in business and engineering and to teach techniques of differential and integral calculus without sacrificing mathematical accuracy.	3	A	Department of Transportation Science	SDG4
2023	1112	Bachelor	3	B6803L9C	A	Supply Chain Design and Management	Let students understand the concepts, methods and execution steps of supply chain management, develop the planning and execution capabilities of supply chain design and management, and the ability to produce professional reports and presentations.	3	A	Department of Transportation Science	SDG3,SDG8,SDG10,SDG16,SDG12,SDG9,SDG4
2023	1112	Bachelor	3	B6803L9C	B	Supply Chain Design and Management	Let students understand the concepts, methods and execution steps of supply chain management, develop the planning and execution capabilities of supply chain design and management, and the ability to produce professional reports and presentations.	3	A	Department of Transportation Science	SDG3,SDG4,SDG8,SDG10,SDG16,SDG12,SDG9

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2023	1112	Bachelor	1	B6801M3C	A	Programming	This course introduces the basic principles of programming languages, data input methods, data output presentation, software usage, object orientation, module design methods, programming logic and program structure organization.	3	A	Department of Transportation Science	SDG4
2023	1112	Bachelor	1	B6801M3C	B	Programming	This course introduces the basic principles of the Python programming language, data input methods, data output display, software usage, object orientation, module design methods, programming logic, and program structure organization.	3	A	Department of Transportation Science	SDG4
2023	1112	Bachelor	2	B6802N7I	A	Transportation Management	This is an undergraduate course on Transportation Management. The purpose of this course is to combine management theory with the operation of the transportation industry, so as to cultivate the ability of practical analysis techniques.	3	A	Department of Transportation Science	SDG9,SDG11
2023	1112	Bachelor	2	B6802N7I	B	Transportation Management	To enable students to combine management theory with the operation and management of the transportation industry and develop practical analysis skills.	3	A	Department of Transportation Science	SDG4,SDG5,SDG8,SDG11,SDG16,SDG10
2023	1112	Bachelor	1	E4N21410	C	English	The purpose of this course is to improve students'''' abilities in vocabulary, listening and reading.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	3	B89034WO	A	Electromagnetic waves	Teach students the basic theory and application of electromagnetic waves, so that students have sufficient knowledge to study optoelectronics professional courses.	2	B	Department of Optoelectronics and Materials Technology	SDG4,SDG11
2023	1112	Bachelor	2	B5112K10	A	Ship Model Design and Practice(Ⅱ)	Apply the courses of Introduction to Shipbuilding Engineering and Principles of Shipbuilding to actually carry out ship design and construction, turn the theory in the book into practice, and finally verify the design results. The entire course is divided into two semesters with a total of 4 credits. The first semester focuses on: ship type selection, freeship software design, ship drawing lofting, and ship model shell production; the next semester focuses on: ship stern production, ship product layout, propulsion system erection, and ship maneuvering. System installation and actual ship launch for sea trials. Through the ship model made by yourself, you will verify the main processes and specifications of shipbuilding.	2	B	Department of Systems Engineering and Naval Architecture	SDG4
2023	1112	Bachelor	2	B5102K3M	A	Marine Electrical System	Teach the basic principles, types and characteristics of relevant ship motors and the application of electromechanical systems in ships, so that students can learn the basic principles and knowledge of the use of ship motors, power distribution and ship instruments on ships.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG8,SDG9
2023	1112	Bachelor	3	B6803DBM	A	Distribution Business Management	The objectives of this course are as follows: To critically analyze the retailing process, the environment within which it operates, and the institutions and functions that are performed. To provide a foundation for those students who plan to work in retailing or related disciplines	3	B	Department of Transportation Science	SDG12
2023	1112	Bachelor	3	B680318C	B	Reefer Cargo Oereation	This course mainly provides students in the Department of Transportation Science with the basic application knowledge required for refrigerated cargo transportation operations.	3	B	Department of Transportation Science	SDG4
2023	1112	Bachelor	3	B6803558	B	Mobile Geographic Information System	Introduces the concept of mobile communication systems combined with geographical information systems (GIS), practical software operations and firmware programming. This course emphasizes the integration of mobile communication systems (including satellite, radio and 5G communication systems) with GIS, land, sea and air transportation and logistics. and the importance of physical planning and implementation in the supply chain, so that students who take this course can not only acquire the basic concepts of intelligent transportation systems (ITS), but also fully understand the actual practice of intelligent mobile geographic information systems. Operation, in order to combine theory and practice, and cultivate the system management ability of working in ports, harbor companies or transportation companies in the future.	3	B	Department of Transportation Science	SDG4
2023	1112	Bachelor	3	B6803L5H	B	Warehouse and Inventory Management	Course objectives are: 1. Cultivate students' skills in measuring and dealing with demand uncertainty 2. Introduce and analyze basic inventory management issues 3. Help students understand the role and function of warehousing in the logistics system	3	A	Department of Transportation Science	SDG4,SDG12
2023	1112	Bachelor	3	B6803L5H	A	Warehouse and Inventory Management	Its course objectives are: 1. Cultivate students' skills in measuring and dealing with demand uncertainty 2. Introduce and analyze basic inventory management issues 3. Help students understand the role and function of warehousing in the logistics system	3	A	Department of Transportation Science	SDG4,SDG12
2023	1112	Bachelor	2	B682266H	A	Operations Research	This course is designed for junior undergraduate course on optimization and system analysis, as applied to logistics management. The focus of this course is to enhance the students' technical skill and system perspective in problem solving, in particular model formulation. After completing this course, students will have learned the most modern skill available for the design, operation, and evaluation of logistics systems.	3	A	Department of Transportation Science	SDG4,SDG11
2023	1112	Bachelor	1	B6801NNY	B	Service-Learning Program-Campus Service(Ⅱ)	Students who participate in labor service can develop the concept and habit of service. Provide teachers and students with a neat and clean environment in classrooms and public spaces.	0	T	Department of Transportation Science	SDG4,SDG5
2023	1112	Bachelor	2	B7102E94	B	Practical correspondence of English for shipping	To enable students to understand the content of commonly used letters and professional vocabulary in international ship-related shipping business.	2	B	Department of Merchant Marine	SDG17
2023	1112	Bachelor	2	B7102558	A	Introduction of Geographic Information System	Geographic information system (GIS) is a kind of science and technology or service developed rapidly in recent years. It uses computer tools to integrate with the spatial data from various resources and material, and to assist decision makers in developing the most suitable spatial decisions. This course is an introduction of GIS comprised basic GIS concepts, terms, spatial analysis theories and practical applications. Students will learn the basic concepts and theories of GIS and could use the GIS software to solve actual problems by lecturing on the current development of GIS technologies and various spatial analysis functions of software, as well as illustrating and drilling on some hands-on exercises.	2	B	Department of Merchant Marine	SDG9,SDG16,SDG11,SDG14,SDG15

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2023	1112	Bachelor	3	B71032VO	A	International Maritime Convention	This course will analyze various international maritime conventions on their content, nature, and categories. It will also cover the signing, implementation, and enforcement of these conventions. It will emphasize the importance of these conventions to the shipping industry, and introduce the International Maritime Organizations, International Association of Classification Societies, and top 12 classification society in the world. Several topics related to Port State Control will also be covered, regarding construction of merchant ship, certification, safety of navigation, fire protection and extinction, salvage, oil pollution from ship, dangerous cargo, dumping, and air pollution. Rules for navigation at sea and Ballast Water Management Convention will be introduced as well.	2	B	Department of Merchant Marine	SDG4,SDG14,SDG9
2023	1112	Bachelor	3	B7103B84	A	Marine Insurance	Where there is trade, there is transportation, and maritime transportation must be insured to spread risks. Marine insurance and maritime cargo transportation are as inseparable as the human body and blood. Only understanding marine insurance can reduce or reduce marine transportation and marine risks.	2	B	Department of Merchant Marine	SDG16
2023	1112	Bachelor	2	B7102L92	A	Port Administration and Management	Describe port development, growth, competition, tariff, understanding port managemetn and operations, respect to theory and practice.	2	B	Department of Merchant Marine	SDG8,SDG9
2023	1112	Bachelor	2	B7102J34	A	The Second Stage Team Trainingon Ship	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.1 Celestial Navigation and 1.1.2 Terrestrial and Coastal Navigation, taking into account the teaching of relevant necessary knowledge or skills, the following teaching content is arranged, and through personal participation in practical training , so that students can have a deeper understanding of the practical application of navigation, shipbuilding and other classroom learning in real ship navigation, so as to achieve a full integration of academic theory and practice.	0	B	Department of Merchant Marine	SDG4,SDG8,SDG17
2023	1112	Bachelor	3	E4G23661	A	Operation Research	This course continues the homework study (1) and introduces the decision-making tools based on the concept of randomness. It is hoped that students in this course can establish the concept of randomness and at the same time be able to apply the tools introduced to solve problems.	2	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	3	B3A030EO	A	Undergraduate Seminar (Ⅱ)	Enhance students' extracurricular knowledge in different fields and verify the theories they have learned.	1	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	E4N21410	A	English	The goal of this course is to make students get interested in using English to communicate with people and enhance their accuracy and fluency.	2	A	Institute of Applied English	SDG13
2023	1112	Bachelor	2	B7602CAG	A	Ocean Recreation and Management	The objective of this course is to construct the concepts and principles of marine leisure management.Through the understanding of marine leisure management, planning principles, attractiveness creation and management strategies, etc.Also assisted by classroom case discussions, experience of marine leisure activities, outdoor teaching and practical experience.To achieve the combination of marine leisure planning management and operation theory and practice.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG14
2023	1121	Doctorate	1	D33014WV	B	Introduction to Evolution and Evolutionary Neuroendocrinology	To briefly understand the function and mechanism in evolution and evolutionary neuroendocrinology.	3	B	Department of Aquaculture	SDG14
2023	1112	Bachelor	3	B76033T1	A	Practice of Marine Tourism Guiding	To enable students to understand the connotation of marine sightseeing guides.Combining with the current situation and development of local tourism in Keelung and the current situation of development, guide skills and practical skills will be established.Through the study of tour guide practice, students can connect knowledge with local resources, and participate in local services to construct the concept of sustainable ocean tourism. Through cooperation with local industries, students are familiarized with local tourism characteristics and tour design. Construct students''guidance and practical skills, apply them to the tourism industry, and have the ability to use of regional resources and multiculturalism. And then improve the quality level and competitiveness of our country''s tourism and recreation.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG11,SDG14
2023	1112	Bachelor	3	B760336U	A	Destination Marketing and Management	This course focuses on how destination marketing is planned, implemented and evaluated as well as the management and operations of destination marketing and management organizations, how they conduct business, and the major opportunities, challenges and issues they face to compete for the global leisure and business travel markets.	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG11,SDG12
2023	1112	Bachelor	3	B7103T69	B	Practice of Ship Handling	Apply the theory of ship maneuvering in practice	2	B	Department of Merchant Marine	SDG1,SDG4,SDG5
2023	1112	Bachelor	3	B7103V73	A	Medical First Aid	Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	2	B	Department of Merchant Marine	SDG3
2023	1112	Bachelor	2	B7122437	A	Introduction to Civil Law	Introduce the law of life and make the law come to life.	2	B	Department of Merchant Marine	SDG1,SDG5,SDG11,SDG12,SDG16,SDG10,SDG4
2023	1112	Bachelor	1	B7101J33	A	The First Stage Team Training on Ship	Through Model Couse 7.03-1.1.2 and offshore practice, the theory and practice are confirmed, and the teaching effect is expected to be achieved.	0	B	Department of Merchant Marine	SDG4,SDG5,SDG17
2023	1112	Bachelor	1	B7101NNY	A	Service-Learning Program-Campus Service(II)	Strengthen students' squad leaders to organize groups to complete weekly service work	0	T	Department of Merchant Marine	SDG4,SDG5,SDG6,SDG11
2023	1112	Bachelor	1	B7101I2O	B	Fire Prevention and Fire Fighting	This course is organized in accordance with the provisions of IMO Model Course 7.03 3.3 and 1978 STCW Code Section A-VI/1 to enable students to learn the basics and skills of fire prevention, fire extinguishing and safety required for " Support level " crew members.	1	A	Department of Merchant Marine	SDG3,SDG17,SDG4,SDG14,SDG7
2023	1112	Bachelor	1	B7101I2O	A	Fire Prevention and Fire Fighting	This course is organized in accordance with the provisions of IMO Model Course 7.03 3.3 and 1978 STCW Code Section A-VI/1 to enable students to learn the basics and skills of fire prevention, fire extinguishing and safety required for " Support level " crew members.	1	A	Department of Merchant Marine	SDG3,SDG14,SDG17,SDG4,SDG7

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2023	1112	Bachelor	1	B71011KG	A	Security duties for seafarers	This course follows the norms of the IMO Model Course 3.26, STCW Convention Rule VI/6, Code A-VI/6 and Table A-VI/6-2, taking into account the transfer of relevant necessary knowledge or skills, so as to achieve the following teaching objectives: 1.knowledge of current security threats and patterns; 2.recognition and detection of weapons, dangerous substances and devices; 3.recognition, on a non-discriminatory basis, of characteristics and behavior alpatterns of persons who are likely to threaten security; 4.techniques used to circumvent security measures; 5.crowd management and control techniques; 6.security related communications; 7.knowledge of emergency procedures and contingency plans; 8.operation of security equipment and systems; 9.testing, calibration and at-sea maintenance of security equipment and systems; 10.inspection, control, and monitoring techniques; and 11.methods of physical searches of persons, personal effects, baggage, cargo, and ship stores	1	A	Department of Merchant Marine	SDG4,SDG8,SDG17,SDG16,SDG14,SDG13
2023	1112	Bachelor	3	B3A03U82	A	Nutrition	1. To equip students with basic nutrition knowledge and understand the role of food ingredients in maintaining human physiological functions and preventing diseases. 2. Integrate knowledge in the core areas of food science to inspire students' interest in researching innovative foods and learning advanced nutrition courses. 3. Cultivate students' abilities in data collection, peer cooperation, analytical thinking, expression and communication... etc.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3A03I38	A	Seminar	1. Introduction to how to collect and read scientific journal articles. 2. Train to compile written reports and produce briefings. 3. Develop reading and communication skills. 4. Develop the ability to answer questions.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3A04A19	A	Food Sanitation and Safety	The purpose of this course is to enable students to understand the current knowledge related to food hygiene and safety, including knowledge and prevention of food poisoning, mycotoxin poisoning, animal and plant natural toxin poisoning, chemical substances in food additives or environmental pollutants, and food packaging containers. Health safety and management, heavy metal pollution, etc., supplemented by the introduction of relevant laws and regulations and policy information.	2	A	Department of Food Science	SDG3,SDG4,SDG11
2023	1112	Bachelor	3	B3A0347H	B	Biotechnology Lab.	This course is designed to implement the theory of biotechnology in basic experiments and make students familiar with basic biotechnology operations.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B7101062	A	Engineering Mechanics	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.2.1 Ship Stability and Physical Science, taking into account the teaching of relevant necessary knowledge or skills. It takes statics and incorporates some concepts of material mechanics as the scope, and mainly discusses statics. Issues such as force response and stability of objects under force balance, focusing on force analysis and balance; center of gravity, center of mass, center of mass and moment of inertia, as well as the concepts of stress and strain. Enrich students' concepts and analytical abilities in basic mechanics, and at the same time understand the basic application of mechanics in ship-related fields, and lay a good foundation for subsequent courses such as ship structure, ship stability, ship maneuvering, and cargo operations.	2	A	Department of Merchant Marine	SDG4,SDG9
2023	1112	Bachelor	3	B71031KH	A	Electronic Chart Display and Information System	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Charter, and complies with the International Maritime Organization (IMO) Model Course 7.03-1.4 (Use of ECDIS to maintain safety of navigation), and Model Course 1.27 – Specifications for the operational use of operational-level electronic chart display and information systems (Operational Use of ECDIS). Courses are planned taking into account the teaching of relevant necessary knowledge and skills, so that students can not only understand the various regulations of IMO/IHO for this system, but also have the basic knowledge and necessary skills to operate the system.	2	A	Department of Merchant Marine	SDG1,SDG4,SDG8
2023	1112	Bachelor	3	B71032OE	A	Integrated Bridge System including Integrated Navigation System	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Regulations, and complies with the International Maritime Organization (IMO) Model 1.32 – Integrated Bridge Plan courses based on the requirements for the operational use of Integrated Bridge Systems (IBS) and refer to relevant necessary knowledge or skills; for example: Model Course 7.03-1.2 (MAINTAIN A SAFE NAVIGATIONAL WATCH), Model Course 7.03-1.3 (USE OF RADAR AND ARPA TO MAINTAIN SAFETY OF NAVIGATION), Model Course 7.03-1.4 (Use of ECDIS to maintain safety of navigation), etc., so that students can understand the necessary information of this equipment and have the basic knowledge to operate the system.	2	B	Department of Merchant Marine	SDG1,SDG4,SDG8
2023	1112	Bachelor	1	B7101H9N	A	International Trade	It enables students to understand the introduction of the international trade transaction process, the production of trade documents, and cultivates students' international perspective, so that they can understand and apply basic practical issues when entering the workplace.	2	B	Department of Merchant Marine	SDG8
2023	1112	Master	1	M52014B9	A	Advanced Coastal Hydraulics	This course further discusses the small amplitude waves theory, the overview of Boussinesq equations, surface gravity waves, and the characteristics of wave propagation and deformation over the coastal structures and beaches, second-order wave loads and their responses in random sea, free surface tracking methods and their applications in wave hydrodynamics application, and also the numerical methods of nonlinear waves. The content includes related mechanical properties of waves, currents, and terrain changes, coastline change patterns, port basin oscillations and the mechanical performance of tides on coastal structures. This course is planned to be completed in 18 weeks and 3 hours a week.	3	B	Department of Harbor and River Engineering	SDG9,SDG11
2023	1112	Bachelor	3	B720387B	A	Nontraditional Maching	Make students know the characteristics and applications of various non-traditional machining technologies.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Master	1	T4Y01552	A	Special Topic in Geographic Information System	Geographic Information System (GIS) is a technology that has developed rapidly in recent years. It uses computer tools to integrate attributes and spatial data from various sources to help users manage the earth's environment and assist decision-makers in formulating the best spatial decisions so that we can Can fully and sustainably utilize the earth's resources. Through the teaching of the development, functions and practical applications of GIS, students can understand the theoretical basis and application direction of GIS. Through practical operation, students can become familiar with the operation of GIS tools and achieve full coordination between theory and practice.	2	B	Department of Transportation Science	SDG4

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2023	1112	Bachelor	3	B01034B6	A	Legal Japanese (IV)	1. This series of courses will improve students' ability to read legal Japanese through explanations of the basic structure and syntax of Japanese. It will also provide timely current affairs materials to help accumulate preliminary experience in interpreting messages, so as to improve their profession and further contribute to their professional development. Research and thesis writing. 2. The main goal of this semester's "Legal Japanese (IV)" course is to enable students to become proficient in the use of verbs, and to familiarize themselves with Japan's legal and political system and current social conditions through the introduction of news.	2	B	Bachelor Degree of Ocean Law and Policy	SDG17
2023	1112	Bachelor	3	B8903I3J	I	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Bachelor	2	B01024JE	A	Marine Economics	Students can apply the concept and methods of economics to realise how do human beings utilise the marine renewable resources (eg. fisheries). What kind of behavior may influence the ocean environment and market? How do people engage in reasonable ocean production, management, marketing, trade, and other business behavior?	2	B	Bachelor Degree of Ocean Law and Policy	SDG2,SDG14,SDG13,SDG3,SDG12,SDG8
2023	1112	Bachelor	3	B0103C0A	A	Maritime Administration Law	The main purpose of this course is to introduce students to relevant domestic and international regulations on maritime administration. Students who are interested in maritime affairs will have a more concrete understanding of the concepts, principles and legal sources.	2	A	Bachelor Degree of Ocean Law and Policy	SDG7,SDG17,SDG14,SDG13,SDG8,SDG12,SDG9
2023	1112	Master	1	M32023CH	A	Immunotoxicology	Objective is to provide students with an understanding of the influence of various environmental substances and natural active ingredients on the immune system and the immunotoxicological mechanism caused by these substances.	2	B	Department of Food Science	SDG4
2023	1112	Master	1	M32011IK	A	Accountability Practice for R&D of Health Food	The research and development of health food occupies an important position in modern food science. With the development of an aging society, people's health care concepts have evolved from disease treatment in the past to health care and prevention as the mainstream. The NIH of the United States established NCCAM in 1999 to be responsible for the research of complementary and alternative therapies. It is precisely because countries are gradually entering an aging society, and the original treatment insurance system is gradually unable to bear the huge medical expenses, resulting in an excessive society. The burden has caused the health insurance systems of various countries to be on the verge of bankruptcy. Therefore, if human health can be improved through the development and use of health foods, it will effectively reduce the use of pharmaceuticals and reduce the burden on the health insurance system. Through the research and development and marketing of health food, this course provides basic knowledge about health food related technologies, raw materials, research and development, etc., plus the planning and discussion of product production processes, coupled with the discussion of product development design concepts and channel models. After the implementation of this course, it is expected to Allowing students to actually understand the basics and practices of health food research and development will be of great help to their future work after entering society. In addition, food (including health food, hygiene, safety and management related regulations, food safety assessment methods, food factory hygiene and safety management and assessment methods, and food inspection and analysis method validation and laboratory certification, etc. will also be taught	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	E4A01P06	A	Electronic Navigation	This course provides the understanding of basic theory and practicing knowledge regarding electric navigation equipment.	2	A	Department of Merchant Marine	SDG8,SDG14
2023	1112	Bachelor	2	B57021Y4	A	MATLAB programming language	MATLAB is a common engineering software. The main goal of this course is to introduce MATLAB and its basic applications.	3	B	Department of Computer Science and Engineering	SDG4,SDG9
2023	1112	Doctorate	1	D8601576	A	Seismological Data Processing	1. To guide the students powerful tools and use them for studying in seismology. 2. To train the students to obtain the information they need for their studying from the internet and professional website.	3	B	Institute of Earth Sciences	SDG4
2023	1112	Bachelor	3	B68032UC	A	Application of R to the Practice of Statistics in Transportation	The main goal of this course is to learn R programming language and statistical concepts, so that students can use R programming language to analyze actual data. It also hopes to strengthen students' statistical analysis and programming skills through exercises and discussions in R writing.	3	B	Department of Transportation Science	SDG4,SDG8
2023	1112	Bachelor	4	B680467C	B	Reefer Container	This course mainly provides students in the Department of Transportation Science with the basic application knowledge of cryogenic transportation vehicles.	3	B	Department of Transportation Science	SDG4
2023	1112	Bachelor	1	B7101062	B	Engineering Mechanics	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.2.1 Ship Stability and Physical Science, taking into account the teaching of relevant necessary knowledge or skills. It takes statics and incorporates some concepts of material mechanics as the scope, and mainly discusses statics. Issues such as force response and stability of objects under force balance, focusing on force analysis and balance; center of gravity, center of mass, center of mass and moment of inertia, as well as the concepts of stress and strain. Enrich students' concepts and analytical abilities in basic mechanics, and at the same time understand the basic application of mechanics in ship-related fields, and lay a good foundation for subsequent courses such as ship structure, ship stability, ship maneuvering, and cargo operations.	2	A	Department of Merchant Marine	SDG4,SDG9
2023	1112	Bachelor	3	B71031KH	B	Electronic Chart Display and Information System	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Charter, and complies with the International Maritime Organization (IMO) Model Course 7.03-1.4 (Use of ECDIS to maintain safety of navigation), and Model Course 1.27 – Specifications for the operational use of operational-level electronic chart display and information systems (Operational Use of ECDIS). Courses are planned taking into account the teaching of relevant necessary knowledge and skills, so that students can not only understand the various regulations of IMO/IHO for this system, but also have the basic knowledge and necessary skills to operate the system.	2	A	Department of Merchant Marine	SDG1,SDG8,SDG4
2023	1112	Bachelor	1	B7101806	A	Introduction to Laws	This course is a stepping stone to the introduction of law. It is necessary and the only way for learners to establish the concept of general law.	2	B	Department of Merchant Marine	SDG1,SDG12,SDG16,SDG11,SDG4,SDG5,SDG10
2023	1112	Bachelor	3	B710331S	A	Practice of Cargo Operation	According to IMO Model Course 7.03-2.1 Monitor the Loading and Unloading of Cargos and their care during the voyage., taking into account the transfer of relevant necessary knowledge or skills. This course enables students to learn the differences in cargo loading and unloading of bulk ships, container ships and oil tankers, as well as the precautions when loading and unloading cargo, as well as the complete operation of cargo load calculation practice.	2	B	Department of Merchant Marine	SDG4
2023	1112	Bachelor	3	B710331S	B	Practice of Cargo Operation	In accordance with the specifications of IMO Model Course 7.03-2.1 Monitor the Loading and Unloading of Cargos and their care during the voyage., consideration will be given to the teaching of relevant necessary knowledge or skills. This enables students to learn the differences in cargo loading and unloading of bulk ships, container ships and oil tankers, as well as the precautions when loading and unloading cargo, as well as the complete operation of cargo load calculation practice.	2	B	Department of Merchant Marine	SDG4
2023	1112	Doctorate	1	D89010HM	A	Fundamentals of Photonics	Introduce basic knowledge about optoelectronic engineering, including: generation of laser coherent light sources, propagation of light in free space and optical components, light modulation, switching, and scanning, light amplification and frequency conversion, and light detection	3	B	Department of Optoelectronics and Materials Technology	SDG4

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2023	1112	Bachelor	4	B68042HF	B	The Practice of Transportation and Tourism	The main goal of this course is to enable students to understand issues related to transportation and tourism activities, explore various tourism and recreation resources, analyze the use of tourism resources, and also focus on transportation tools that have both transportation and tourism functions, such as railways, cars, Bicycles, etc. are introduced so that students can have a more preliminary understanding of the role that transportation behavior plays in tourism and sightseeing activities.	3	B	Department of Transportation Science	SDG8
2023	1112	Master	1	M04014PV	A	International Marine Insurance Law	my country's marine insurance market follows international business practices and commonly uses standardized contract clauses drawn up by British insurance business groups, with English law as the governing law. Therefore, the objectives of this course are: 1. Let students understand the relationship and role between British statutory law, case law and practical fixed covenants. 2. Students should be able to clearly distinguish the similarities and differences between British law, Chinese law and practical provisions. 3. When encountering relevant issues, students should be able to conduct independent research and propose solutions.	2	B	Master Degree Program in Ocean Policy	SDG1,SDG4,SDG16,SDG17
2023	1112	Bachelor	2	B7322D08	B	Maritime Law	The objective of this course is to help the students in grasping solid concept of Maritime Act.	2	A	Department of Shipping and Transportation Management	SDG14,SDG17
2023	1112	Master	1	M02013T3	A	Advances in Applied Microbiology	This course is designed for students who are interested in the latest research and applications of response of novel foodborne pathogens for environmental stress.	3	B	Institute of Food Safety and Risk Management	SDG3,SDG9,SDG12,SDG15,SDG17,SDG14,SDG11,SDG8,SDG6
2023	1112	Master	1	M0201I3F	A	Seminar (2)	Train graduate students in their ability to collect, organize, and present documents, and strengthen cross-field learning and interaction.	1	A	Institute of Food Safety and Risk Management	SDG3,SDG4
2023	1112	Master	1	M32014PJ	A	Microbiome and Metabolomics	Understand the human gut microbes and related metabolites. Develop the ability to explore the relationship between microbiology and disease. Learn how to analyze the data of next-generation microbiology. Apply microbiome and metabolomics to the field of student thesis research.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	2	B76022SM	A	Meeting, Incentive, Convention, and Exhibition Management	1. Understanding the circumstances of Meeting and Exhibition industry 2. Learning service process and practical operation 3. Knowing the management objective of Meeting and Exhibition industry 4. Helping student for preparing the certification of MICE industry	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG8,SDG17
2023	1112	Bachelor	3	B9E0335A	A	Creative Writing and Copywriting	1. Develop solid writing skills through multiple writing exercises. 2. Use innovative writing modes to stimulate thinking and associative abilities. 3. Study multiple writing skills and improve the ability to use words. 4. Exploring different writing themes and cultivating copywriting skills. 5. Through various writing aspects, activate creative thinking ability.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4,SDG8
2023	1112	Bachelor	1	B5101H30	A	Dynamics	Introduce the theory and the application of particles and rigid body dynamics	3	A	Department of Systems Engineering and Naval Architecture	SDG3,SDG5,SDG9
2023	1112	Bachelor	1	B5101M9N	A	Calculus (Ⅱ)	Establish students' basic theoretical concepts and proficiency in operation rules for function limits, continuity, differentiation, and integrals, and lay the foundation for mathematical application abilities in related disciplines in the future.	3	A	Department of Systems Engineering and Naval Architecture	SDG4,SDG8,SDG5
2023	1112	Master	1	M02014AZ	A	Sustainability and Safety of Food Production	Recognize knowledge on Sustainable Food Production	3	B	Institute of Food Safety and Risk Management	SDG1,SDG12,SDG11,SDG9,SDG8,SDG6,SDG3,SDG2
2023	1112	Master	2	M02023VC	A	Food Industries Management Investment	Promote the insight of Food Industries, business operation and dynamic of global markets	3	B	Institute of Food Safety and Risk Management	SDG1,SDG12,SDG17,SDG14,SDG9
2023	1112	Master	1	M020133V	A	Special topics in health risk assessment	To enable students to understand how to conduct food risk assessment, including understanding the four analysis steps of risk assessment such as hazard identification, hazard characterization, exposure assessment and risk characterization, and risk communication; after the course, students are expected to be fully familiar with the analysis steps of risk assessment .	3	A	Institute of Food Safety and Risk Management	SDG3,SDG4
2023	1112	Bachelor	2	B7602TU2	A	Tourism Marketing	This course will help students appreciate, develop and manage marketing in the tourism and hospitality industry. The course will introduce basic concepts and principles in tourism and hospitality marketing, and will address differences between tourism and hospitality and other industries. Students will learn how marketing managers can position their products or services to capture customers.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG11,SDG12
2023	1112	Master	1	M9A011JH	A	Special Topic on Personality	The purpose of this introductory course is to help students acquire the basic knowledge in personality theories. Especially, this course will involve reading about and discussing a variety of personality theories.	2	B	Institute of Education	SDG3,SDG4,SDG5,SDG10
2023	1112	Bachelor	3	B7603TU4	A	Tourism Resources Planning	1. Introduction of the tourism resource planning 2. Explaining the definition, survey, evaluation and plan of tourism resources 3. Discussing the management and case study of tourism resources 4. Analyzing the tourism impact	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG9,SDG11
2023	1112	Master	1	T4Y014HZ	A	Smart Vessel and Marine Transportation System	This course will introduce the components of smart ships, how to use various sensors, communication technologies, maritime information systems, ship networking and other technologies to introduce smart factors into ship design through the development of science and technology, and introduce the basics of ocean transportation systems. Concepts and related applications discussed.	2	B	Department of Transportation Science	SDG4,SDG9
2023	1112	Master	2	T4Y22I38	A	Seminar	Cultivate students' ability to write papers and presentations, and increase students' logical thinking, problem solving and frustration tolerance.	1	A	Department of Transportation Science	SDG4,SDG9
2023	1121	Master	1	M3B0147K	A	Biomaterials	To enable students to understand the definition, characteristics, scope and biomedical applications of biomedical materials	3	B	Department of Bioscience and Biotechnology	SDG3,SDG9
2023	1112	Bachelor	2	B77023M9	A	Overseas Trainee	The concept of traveling thousands of miles is worth reading thousands of books, experience through visits and learn through feelings. Mainly provides study of economics and management courses to Fuzhou off-site teaching	1	B	Bachelor Degree Program in Ocean Business Management	SDG8
2023	1112	Bachelor	3	B71033G2	A	C/C++Programming	This course will introduce the basic skills of using C/C++ language to plan and design programs, as well as several commonly used data structures and their applications, and explain how to use algorithms to assist in program design.	2	B	Department of Merchant Marine	SDG4,SDG8,SDG9
2023	1112	Bachelor	3	B710318V	A	Safety of Life at Sea	Introduce the history of the International Convention on the Safety of Life at Sea and the content of related regulations	2	B	Department of Merchant Marine	SDG4
2023	1112	Master	1	T4Y01444	A	Operations Management	Production/operation is the core activity of an enterprise, which includes basic contents such as forecasting, capacity planning, facility layout, quality management, and work scheduling. The goal of this course is to equip students with basic knowledge of these contents and then develop preliminary application abilities.	2	B	Department of Transportation Science	SDG9,SDG11,SDG12
2023	1112	Bachelor	2	B3202A3B	A	Food Products Technology (Ⅱ)	Enable students in the course to acquire basic knowledge of food science and food processing principles.	3	A	Department of Food Science	SDG4,SDG11,SDG12,SDG9

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2023	1112	Bachelor	2	B320260G	B	Organic Chemistry(II)	The electron-movement oriented approach is employed to encourage the understanding of organic reactions. The basis biochemistry and environmental chemistry will also be covered in organic chemist`s veiw.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	2	B7702686	A	Fundamentals of Investments	This aim of this course is to introduce the modern security and futures markets over the world. In order to make students have further knowledge and understanding about the markets, I will familiarize them with the present situation of security and futures markets, as well as the regulations for trading securities and futures in practice. Moreover, students will be able to study for the purpose of application through real case discussions and simulated trading of securities and futures.	3	B	Bachelor Degree Program in Ocean Business Management	SDG4,SDG8
2023	1112	Bachelor	2	B77022FF	A	Service Management	1. Understand the basic concepts and trends of service industry management. 2. Develop reading analysis ability, thinking and expression skills. Therefore, students apply the theories learned in class to individual cases. 3. Cultivate teamwork skills, and case reports and final reports are presented in a team manner	3	A	Bachelor Degree Program in Ocean Business Management	SDG4,SDG9,SDG17,SDG13,SDG11
2023	1112	Bachelor	2	B77223D7	A	Industrial Visits & Lectures on Ocean Business	To enable students to understand the current status of the marine industry, especially Matsu-related industries	1	A	Bachelor Degree Program in Ocean Business Management	SDG8,SDG11
2023	1112	Bachelor	2	B71024AG	B	Container Transportation Operations	From explaining traditional maritme transport, means of containerization ship, container type, flowing procedure of container terminal (depot), and discuss practical operation issues. This subject provides students with a full understanding of current developments in the liner shipping, and to enable them to be familiar with the application of practical skills in container transport management decision making.	2	B	Department of Merchant Marine	SDG7,SDG17,SDG12,SDG9
2023	1112	Bachelor	2	B71024AG	A	Container Transportation Operations	From explaining traditional maritme transport, means of containerization ship, container type, flowing procedure of container terminal (depot), and discuss practical operation issues.This subject provides students with a full understanding of current developments in the liner shipping, and to enable them to be familiar with the application of practical skills in container transport management decision making.	2	B	Department of Merchant Marine	SDG8,SDG17,SDG9
2023	1112	Bachelor	2	B320260G	A	Organic Chemistry(II)	The electron-movement oriented approach is employed to encourage the understanding of organic reactions. The basis biochemistry and environmental chemistry will also be covered in organic chemist`s veiw.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	2	B320260H	A	Organic Chemistry Lab. (II)	In conjunction with the teaching of organic chemistry courses, students are provided with basic techniques for learning experimental operations.	1	A	Department of Food Science	SDG4
2023	1121	Bachelor	3	B3203A29	C	Food Products Technology Lab. (I)	The purpose of this course is to introduce the practical application of various types of food processing methods, and to explain the chemical and physical changes of raw materials during processing.	2	A	Department of Food Science	SDG4
2023	1121	Bachelor	3	B32030EI	A	Undergraduate Seminar (I)	Enhance students' extracurricular knowledge in different fields and verify the theories they have learned.	1	B	Department of Food Science	SDG4
2023	1121	Bachelor	3	B3203A39	A	Food Refrigeration System	The objective of this course is to introduce the basic concept of food freezing machinery, and then be able to adapt to the needs of the food industry.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B7103V73	B	Medical First Aid	Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	2	B	Department of Merchant Marine	SDG3
2023	1112	Bachelor	3	B7103FL1	A	Voyage Planning	Understand the importance of voyage planning, relevant regulations, evaluation, implementation and precautions	2	B	Department of Merchant Marine	SDG4
2023	1112	Bachelor	2	B682266H	B	Operations Research	This course is designed for junior undergraduate course on optimization and system analysis, as applied to logistics management. The focus of this course is to enhance the students' technical skill and system perspective in problem solving, in particular model formulation. After completing this course, students will have learned the most modern skill available for the design, operation, and evaluation of logistics systems.	3	A	Department of Transportation Science	SDG4,SDG11
2023	1112	Bachelor	4	B680476L	A	Traffic Control	This course aims to introduce the theory and necessary knowledge of traffic control. All students are expected to apply traffic control method to improve traffic efficiency and safety.	3	B	Department of Transportation Science	SDG4,SDG11,SDG9
2023	1112	Bachelor	2	B680231N	B	Principles of Transport and Communications	This course aims to provide the internationally renowned AGI STK American space technology NASA international certification software (LEVEL I II III) coaching and certification course. In addition to practical operation as the main teaching method, it also introduces the mobile communication system of land, sea, air and space in the intelligent transportation system. Basic communication technologies, concepts and communication system applications. This course explores the importance of analogy and digital communication system theory and implementation, so that students who take this course can not only acquire basic communication concepts, but also be able to personally operate related For satellite and radio communication systems and communication detection systems, one or two visits to off-campus communication electronics companies, space centers, sea and airport electronic communication equipment and telecommunications companies will be arranged during the semester, and cube satellite flying objects will be implemented to combine theory with practice. It also uses satellite orbits and communication software as a training platform combined with radio communication technology to introduce the future needs of the mobile communication re-transportation industry and the application and development of related high technologies. And provide opportunities for international satellite certificate certification!	3	B	Department of Transportation Science	SDG4,SDG17,SDG14,SDG13
2023	1121	Bachelor	3	B320345B	A	Biochemistry (Ⅱ)	This course are key to life science. All students will extend the basic knowledge and the fundamental viewpoint of Biomedical Sciences.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B7703R1O	A	Internet Marketing	Objectives of this course: 1. Help students understand the theoretical knowledge and practical issues of Internet marketing. 2. Cultivate students' ability to analyze and solve practical problems in online marketing. 3. Cultivate students' ability to plan and execute social media marketing.	3	A	Bachelor Degree Program in Ocean Business Management	SDG8,SDG12
2023	1112	Bachelor	1	B68012NS	A	Introduction to Sea Ports	It is designed to build the professional knowledge foundation of maritime transportation and ports for freshmen. It is hoped that taking this course will inspire students to explore the field of maritime transportation.	2	B	Department of Transportation Science	SDG11
2023	1112	Bachelor	2	B7102P06	A	Electronic Navigation	Electronic navigation refers to the use of electronic devices and technologies to assist in navigation. These devices include radar, Automatic Identification System (AIS), Electronic Chart Display and Information Systems (ECDIS), and Global Positioning System (GPS). These technologies provide information on the position, heading, speed, etc., of a vessel or aircraft, aiding navigators or pilots in navigation and collision avoidance.	2	A	Department of Merchant Marine	SDG1,SDG2,SDG4,SDG7,SDG9,SDG11,SDG13,SDG15,SDG17,SDG16,SDG14,SDG12,SDG10,SDG8,SDG6,SDG5,SDG3
2023	1112	Bachelor	2	B7102P06	B	Electronic Navigation	Electronic navigation refers to the use of electronic devices and technologies to assist in navigation. These devices include radar, Automatic Identification System (AIS), Electronic Chart Display and Information Systems (ECDIS), and Global Positioning System (GPS). These technologies provide information on the position, heading, speed, etc., of a vessel or aircraft, aiding navigators or pilots in navigation and collision avoidance.	2	A	Department of Merchant Marine	SDG1,SDG2,SDG3,SDG5,SDG8,SDG10,SDG12,SDG14,SDG17,SDG16,SDG15,SDG13,SDG11,SDG9,SDG7,SDG6,SDG4

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2023	1112	Bachelor	1	B7121L66	A	General Physics	Helping students build the analytical and quantitative skills and confidence needed to apply physics in problem solving for science and engineering. Helping students develop an appreciation of physical universe at its most fundamental level.	2	A	Department of Merchant Marine	SDG4
2023	1121	Master	1	M7201745	A	Micro- Solid Mechanics	This course mainly teaches students to understand the basic knowledge of micro-solid mechanics and the physical phenomena it presents; it also teaches students how to analyze the deformation and stress of microstructures after being loaded by external forces, with the hope that students can apply the knowledge they have learned to explain and solve microstructure problems. Topics related to solid mechanics, thereby cultivating students' design capabilities of microelectromechanical components.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	2	B01222H2	A	Civil Law: General Part of Obligations	Civil law serves as the normative basis for relations of rights and obligations between private individuals. Among them, the civil law debt compilation is the center of gravity of private law, especially property law, and is a collection of types summarized on these important norms of various rights and obligations in inter-private property General, debt compilation of each of the cheap provisions. In other words, that is, the provisions of each section of the debt are where the specific type of regulation of the true debt law lies; The same premises, as the basis for the common application of each individual type, not that the debt total is an independent regulation. The People's Congress, the Debts, and the Debt are each a comprehensive norm. Studying civil law and property law requires grasping the organic combination of this "trinity" in order to have a macro vision and a sophisticated approach. Based on this philosophy, this course aims to be concise, in-depth, focusing on the training of students' legal thinking skills, and implemented in daily life.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG16,SDG8,SDG10
2023	1112	Bachelor	4	B680432Z	B	Transportation and Tourism Japanese	Enable students to acquire basic transportation and travel Japanese and introduce the current operating conditions of Japan's maritime logistics industry	3	B	Department of Transportation Science	SDG4
2023	1112	Bachelor	1	B3B02295	A	Concept of Modern Fisheries	This course performs a comprehensive overview on disciplines and the scope of the fisheries science and technology, the freshmen will acquire overall understanding of the status and contents of the development of fisheries science and technology. The contents include aquatic biology, fisheries, food and farming expertise and affairs, as well as the marine environment and ecological resources conservation topics.	2	A	Department of Bioscience and Biotechnology	SDG3,SDG6,SDG12,SDG14,SDG9
2023	1112	Bachelor	4	B7104NN7	A	Advance Practice at Sea	Merchant shipping education is a discipline that emphasizes the combination of theory and practice. Accordingly, international conventions on the training, certification and duty of navigation personnel stipulate that one must have one year of sea experience before becoming an official ship's mate. In order to effectively use the school's internship resources and shorten the maritime qualifications required for students in this department after graduation, this course is specially offered. The basic requirement of the course is that the number of internship days on board a ship is at least 180 days. In addition, in order to control the quality of the course, nine teachers in the department co-edited the "Advanced Maritime Internship Assignment" as the basis for scoring. We hope that students who take this course will not only have broad navigation knowledge, but also enhance their willingness to get on board.	9	B	Department of Merchant Marine	SDG1,SDG8,SDG7
2023	1112	Master	1	M52013SU	A	Data analyses in coastal engineering	The course aims to provide graduate students with an understanding of common data processing and analysis types in coastal engineering, including how to effectively process data, how to organize data and subsequent analysis and application. The course will mainly introduce common academic analysis methods and the application of data processing tools.	3	B	Department of Harbor and River Engineering	SDG13,SDG14
2023	1112	Bachelor	3	B01032X3	A	Marine Insurance Law	my country's marine insurance market follows international business practices and commonly uses standardized contract clauses drawn up by British insurance business groups, with English law as the governing law. Therefore, the objectives of this course are: 1. Let students understand the relationship and role between British statutory law, case law and practical fixed covenants. 2. Students should be able to clearly distinguish the similarities and differences between British law, Chinese law and practical provisions. 3. When encountering relevant issues, students should be able to conduct independent research and propose solutions.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG9,SDG11,SDG8,SDG17
2023	1112	Bachelor	2	B0102C65	A	Ocean Policy	Understand the ocean elements in the concept of sustainable development, understand international and domestic ocean governance, explore the connotation of ocean policy, cultivate students' attention to ocean affairs, and practice applying theories and techniques in the field of public policy knowledge to issues related to ocean sustainable governance. Public issues, through policy planning, to cultivate talents for future national ocean policy.	2	A	Bachelor Degree of Ocean Law and Policy	SDG14
2023	1112	Bachelor	2	B01221S0	A	Civil Law: Property	The objective of this course is to help students grasp solid concept of the rights in rem of civil code regulations. This class will also focus on various civil code case studies as well as intra-class discussions on related hypo exercise.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG10,SDG8,SDG16
2023	1112	Bachelor	2	B012253A	A	Criminal Laws: Special Part	This course aims to guide students to understand the basic knowledge of criminal law and assist students in reading relevant textbooks independently.	2	A	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1112	Bachelor	4	B810492M	A	Ocean Current Observation and Analysis	The climate issue of global warming is becoming more and more common. However, according to NOAA, we humans currently have only 5% of the ocean exploration, and our understanding of ocean currents is even more limited, especially those hidden deep in the ocean and which dominate the earth for a long time. "Thermohaline circulation" of climate change. Therefore, the teaching goal of the course is not only to allow students to acquire the basic knowledge and analysis techniques of ocean current observation, but also to allow students to see abstract ocean currents with their own eyes through visual methods, thereby increasing students' interest and curiosity in ocean current issues, so as to In the future, we will continue to study and explore new natural science issues related to ocean currents.	3	B	Department of Marine Environmental Informatics	SDG13,SDG14
2023	1112	Bachelor	3	B8103794	A	Ocean Wave	This course provides students with an understanding of basic small amplitude wave theory. This course does not emphasize formula derivation, but will allow students to understand the physical meaning of each formula and allow students to apply relevant programs on the Internet to perform wave calculations to increase their impression of the course content.	2	A	Department of Marine Environmental Informatics	SDG3
2023	1112	Bachelor	2	B6D02P53	A	Electric Machines	1. Understand the basic knowledge and operating principles of electric machinery. 2. Know the types, structures, characteristics and industrial applications of electric machinery. 3. Cultivate the operation and maintenance ability of electric machinery.	3	A	Department of Marine Engineering	SDG7,SDG9,SDG11

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2023	1112	Bachelor	1	B71011KG	B	Security duties for seafarers	This course follows the norms of the IMO Model Course 3.26, STCW Convention Rule VI/6, Code A-VI/6 and Table A-VI/6-2, taking into account the transfer of relevant necessary knowledge or skills, so as to achieve the following teaching objectives: 1.knowledge of current security threats and patterns; 2.recognition and detection of weapons, dangerous substances and devices; 3.recognition, on a non-discriminatory basis, of characteristics and behavior alpatterns of persons who are likely to threaten security; 4.techniques used to circumvent security measures; 5.crowd management and control techniques; 6.security related communications; 7.knowledge of emergency procedures and contingency plans; 8.operation of security equipment and systems; 9.testing, calibration and at-sea maintenance of security equipment and systems; 10.inspection, control, and monitoring techniques; and 11.methods of physical searches of persons, personal effects, baggage, cargo, and ship stores	1	A	Department of Merchant Marine	SDG4,SDG17,SDG16,SDG14,SDG13,SDG8
2023	1112	Bachelor	1	B810110F	A	Introduction to Matlab	The objective of this course is to teach students to use MATLAB for data processing and plotting.	3	A	Department of Marine Environmental Informatics	SDG5,SDG10,SDG9
2023	1121	Master	1	M3B012GH	A	Seaweed bioactive substance and its medical research	In this course, we focus on marine resources applied to biotechnology. From the beginning, we introduce the marine source, especially Taiwan surrounding area. Further, we descript the extracting process of marine bioactive substances, finally to understand its application. We wish students can have deep self-understanding about their marine knowledge and career readies.	2	B	Department of Bioscience and Biotechnology	SDG8,SDG9
2023	1121	Master	2	M3B12I38	A	Seminar	1.The students are familiar with life science-related research articles 2.Learn the skills of presentation and discussion	1	A	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	2	B012264K	A	Administrative Law: General Part	Explain the basic concepts, basic principles and system structure of administrative law in the form of lectures, and guide students to understand various forms of administrative activities and their typing status while grasping the diverse aspects of modern administrative activities, supplemented by important judicial practice cases and their Discuss points for review.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG11,SDG16,SDG10,SDG5,SDG8
2023	1112	Master	1	T4Y014QJ	A	Sustainable Engineering and Management	Carbon neutrality and sustainability have become a global trend and had a great impact on manufacturing, service, supply chains, corporate governance, etc. This course provides students the basic knowledge about these issues and enables them to develop preliminary skills of applications for industries.	2	B	Department of Transportation Science	SDG6,SDG7,SDG9,SDG12,SDG14,SDG15,SDG13,SDG11
2023	1112	Bachelor	3	B6D03672	A	Refrigeration and Air Conditioning	The objective of this course is to impress the students with the power plants of refrigeration and to propose various methods to increase the COP of the refrigerating system.	3	A	Department of Marine Engineering	SDG4
2023	1112	Master	1	T4Y21I38	A	Seminar	The course is a seminar series and intended to expose graduate students to a broad set of management science topics and cutting-edge research issues. Meanwhile, the course helps them develop skills of professional presentations.	1	A	Department of Transportation Science	SDG9,SDG11,SDG12
2023	1112	Bachelor	3	B6D032K4	A	Appiled Eletrical Experiments	The applied electricity experiment course mainly allows students to apply the electrical knowledge they have learned to daily life, so that students can achieve the purpose of applying what they have learned through simple experimental operations. This course will design a number of small experiments on electrical applications. Then plan the final topic, which can stimulate students to explore problems and creative thinking. At the same time, students can use their creative topic production and teamwork learning to enable students to have the ability to solve problems independently and think logically.	1	A	Department of Marine Engineering	SDG7,SDG11
2023	1112	Bachelor	3	B7303I08	A	Global Logistics Management	The aim of the course is to provide students with a basic understanding of the international logistics management and its future development.	2	A	Department of Shipping and Transportation Management	SDG12
2023	1112	Bachelor	3	B7303L90	A	Supply Chain Management	In today's world where the degree of supply chain integration is expanding and concepts are evolving rapidly, this course not only allows students to understand the basic concepts and evolution of the supply chain in a broad way, but also introduces the main operations of the supply chain and the application of related information technology and equipment. Through the definition of the scope, understanding of the supply chain management system, and cases and implementation of supply chain management applications, the basic supply chain management structure, concepts and basic operation management capabilities are established.	3	B	Department of Shipping and Transportation Management	SDG1,SDG9,SDG11,SDG12,SDG13
2023	1112	Doctorate	1	D32014PL	A	Isolation and Purificatiion of Bio-products	The separation and purification of natural products has always been a very important research task and is an indispensable tool in many research fields (such as food, pharmacognosy, development of new drugs, natural product chemistry, analytical chemistry and identification science, etc.). In recent years, exploring the physiological activities of natural products has become a popular research project. However, the above-mentioned research work on finding physiologically active leading compounds from natural products must be based on the separation and purification technology of mixtures, and must be combined with effective Bioactivity detection methods. The separation and purification technology of mixtures is a science that is both traditional and modern. The content of the course will introduce relevant scientific and technological principles and modernly developed separation equipment. This course takes into account the basic principles and experimental operation techniques, and introduces practical examples of separation and differentiation related to the biological industry for interested students.	3	B	Department of Food Science	SDG8,SDG9
2023	1112	Bachelor	1	B9E012TO	A	Marine History and Cultural Resources	Marine history and cultural resources are rich in content. This course plans to expand students' horizons of marine history and culture from three major themes: "Historical Trajectory", "Spatial Landscape", and "Living Culture", and cultivate their literacy in using marine history and cultural resources. The ability to develop ideas and implement proposals.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4,SDG11
2023	1112	Bachelor	3	B9E0335H	A	Cultural and Creative Industry Financial Management	This course presents the basics of financial management and the main decision of corporate finance, for example, financial state-ments, investing decision, funding decision, the management of operating cash flow, dividend policies, and financial planning etc. Establish the specialized knowledge of basic finance to reor-ganize investing decision. It also helps students to learn the ad-vanced course and work development in the future.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG8,SDG11
2023	1112	Bachelor	3	B9E0327C	A	Island Culture Topics	1. Understand and respect the human and geographical characteristics of the island and its unique culture. 2. Understand and learn from successful cases of revitalizing cultural assets into local areas.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG8
2023	1112	Bachelor	3	B6D03UAH	A	Applied Energy Experiment	The energy experiment course mainly allows students to apply the energy knowledge they have learned to daily life, allowing students to apply what they have learned through simple experimental operations. This course has 11 experiments, each of which is conducted by the department. Designed by each laboratory (Energy Laboratory, Energy Management Laboratory, Scientific Computing Laboratory).	1	A	Department of Marine Engineering	SDG1,SDG4

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2023	1112	Bachelor	3	B7303444	A	Production and Operations Management	Production and operation management aims to teach students to understand the connotation and practices of production operation management, hoping to use the most effective methods to improve operation efficiency, eliminate waste and reduce costs, so as to increase the overall profits of the enterprise.	3	B	Department of Shipping and Transportation Management	SDG12
2023	1112	Bachelor	2	B7302N77	A	Transportation Planning	1. Discuss the basic concepts of transportation planning. 2. Learn the research on transportation planning topics. 3. Cultivate students with the professional knowledge required by transportation planners through practical cases.	2	B	Department of Shipping and Transportation Management	SDG9,SDG11
2023	1112	Bachelor	2	B9D023YR	A	Spoken English for Travel (Intermediate)	The course aims to give students the opportunities (1) to understand the general ideas of tourism English about and (2) to cope with a wide variety of travel-related situations. The course is designed for students who especially interested in overseas destinations for study, travel, working holidays or work in the near future.	2	B	Institute of Applied English	SDG3,SDG8,SDG17
2023	1112	Master	1	M02014J3	A	Advanced Cytotoxicology	Learn about the application of cytotoxicology to food safety	2	B	Institute of Food Safety and Risk Management	SDG3,SDG15,SDG14
2023	1112	Master	1	M02014G7	A	Food safety	Food safety	2	B	Institute of Food Safety and Risk Management	SDG3,SDG14,SDG15
2023	1112	Master	1	M34013O5	A	Molecular Ecology	This course is for introducing how molecular techniques can be used to tackle various ecological questions.	2	B	Institute of Marine Biology	SDG7,SDG15,SDG14,SDG13
2023	1112	Bachelor	1	B7201080	A	Engineering Economics	The 111 school year will start with 16+2 weeks according to the school plan. Try to complete the content of the past 18 weeks within 16 weeks. The +2 weeks will be supplemented by online recording as the completion part. Economics + Finance + Project Evaluation Objective: Calculate the financial analysis of engineering projects and write engineering economic reports, and learn engineering economic methods Engineering economics assists in the financial and economic feasibility analysis of engineering development projects and is a method of rational economic decision-making. Allow students to learn and apply economic analysis and financial planning techniques, and use the economic factors of project plans such as costs and benefits to implement various project plans based on the principle of optimally allocating and applying limited resources and optimizing profits. Evaluation serves as a tool for program selection and as a tool to reduce risks and improve decision-making efficiency. It will be helpful for students in the engineering field to find employment in the future. Case evaluation serves as one of the tools for program selection to reduce risks and improve decision-making efficiency. It will be helpful for students in the engineering field to find employment in the future.	2	B	Department of Mechanical and Mechatronic Engineering	SDG1,SDG4,SDG9,SDG12,SDG13,SDG11,SDG8
2023	1121	Master	2	T4Y12I38	A	Seminar	The course is a seminar series and intended to expose graduate students to a broad set of management science topics and cutting-edge research issues. Meanwhile, the course helps them develop skills of professional presentations.	1	A	Department of Transportation Science	SDG4
2023	1112	Master	1	M5701T8K	A	Machine Learning	Introduce algorithms for supervised and unsupervised learning problems.	3	B	Department of Computer Science and Engineering	SDG4,SDG16,SDG8,SDG10
2023	1112	Master	1	M89012YA	A	Writing, Presenting in English with Technical Content	Technical English	2	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Bachelor	1	E4921H61	A	Chinese	By reading the classic works of thinkers and writers, students can not only improve the foundation of their language skills, but also be able to reflect on their own life situations and attitudes towards others, so that classics can be integrated into personal life. In addition, we hope to train students' coordination, communication and oral expression skills through discussions, reports, etc.	2	A	Office of the Academic Affairs	SDG4,SDG10,SDG5,SDG16
2023	1112	Doctorate	1	D53014J9	A	Coding and Information Theory	This course will provide students in the Department of Electrical Engineering who are engaged in communication-related research to understand the operation of communication systems from a mathematical perspective. In the area of message theory, students will learn the ultimate performance analysis of data compression and the maximum reliable transmission capacity of communication channels, and gain a glimpse of the optimal design concept of communication systems through theoretical analysis. In addition, this course will introduce various data compression methods and error correction mechanisms, allowing students to understand practical practices in addition to theory.	3	B	Department of Electrical Engineering	SDG4
2023	1112	Doctorate	1	D74013HP	A	Selective Readings on Legal English (IV)	Improve students' ability to read and understand English legal documents, increase their understanding of English legal vocabulary, and then understand how Japan, the United States, Europe and other countries solve certain international and domestic law issues and their thinking logic. It is hoped that students can think about how to use China's relevant laws When dealing with similar problems, will the process and results be different? It is hoped that in addition to improving students' English proficiency, it can also enhance their understanding of international law and foreign laws.	2	B	Institute of the Law of the Sea	SDG1,SDG9,SDG16,SDG17,SDG12,SDG5,SDG4,SDG3
2023	1112	Master	1	M7401H86	A	Seminar on International Law of the Sea	It enables students to (1) understand how to use the principles of the law of the sea to coordinate negotiations and even conduct judicial procedures such as arbitration or international court litigation to reach a solution when a country has a maritime dispute; (2) understand important principles of the law of the sea, especially the 1982 United Nations Law of the Sea Many systems and provisions in the Convention are the product of mutual compromise between countries, and will be supplemented by new consensus or relevant agreements formed by subsequent countries. (3) Understand more international law of the sea judgments and precedents to facilitate future disputes over the law of the sea. Ability to analyze and comment and propose response plans.	2	B	Institute of the Law of the Sea	SDG1,SDG14,SDG17,SDG16,SDG12,SDG3,SDG7,SDG10
2023	1112	Master	1	T4Y014QM	A	Statistics and Data Analysis	Students completing the course should gain the following knowledge and skills: An understanding of basic descriptive statistics and ability to calculate these statistics and to generate them using SPSS (Statistical Package for the Social Sciences) software; an understanding of when each may be appropriate for descriptive purposes. An ability to determine appropriate tests of statistical significance for differences in means, differences in percentage distributions and cross-tabulations, correlation coefficients and partial coefficients, and to generate the relevant statistics using SPSS software. An ability to structure a multiple regression analysis, to generate regression results using SPSS software, and to interpret these results for statistical and theoretical significance.	2	B	Department of Transportation Science	SDG4,SDG8,SDG10,SDG16,SDG12,SDG9

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	3	B6A031KX	A	Leadership and Engineroom Resource Management	Improve the technical level of officers, so that engineers assigned to hold engineer positions or above on ships can meet the requirements of the STCW CODE A-III/1: "Maintain safety Minimum competency standards for "Engine Watch", which requires knowledge of leadership and engine room resource management, such as resource allocation, allocation and prioritization, communications, decision-making and leadership, crisis management, leadership and workload Management and other detailed knowledge and abilities to maintain the safety of our merchant ships. This course uses a turbine simulator to teach students to understand the engine room environment and systems, basic engine room operations, and understand what resources in the engine room can be used and managed. The course will teach students how to evaluate operating efficiency and system health. Since human resources are also part of the cabin's resources, this course also includes leadership and team management to make the best use of the cabin's human resources. Special regulations: *Since this course can issue training certificates and the course hours must meet the regulations, unexcused absences are not allowed in this course, otherwise the result will be assessed as failing.	3	B	Department of Marine Engineering	SDG4,SDG13
2023	1121	Bachelor	3	B6A03152	A	Internal Combustion Engine	This course provides updated and comprehensive coverage of the applied thermodynamics operating principles of the internal combustion engine for students. The scope of this course includes all IC engines from largest stationary and ship engines down to the smallest engines used on tools and toys, with emphasis on reciprocating engines used in automobiles and similar applications. The course covers the fundamentals of fuels, combustion, heat transfer, lubrication, and fluid mechanics as applied in the oper	3	A	Department of Marine Engineering	SDG7,SDG13
2023	1121	Bachelor	3	B6A0310W	A	Applied Mechanics Experiment	The main purpose of applied mechanics experiment course is to provide students with hands-on experiment opportunities. On the one hand, it introduces various measuring principles and the use of instruments, on the other hand, it cultivates the basic ability of experiment planning and design, and at the same time, it strengthens the learning effect of theoretical courses through the confirmation of theory and experiment. Understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level.	1	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	3	B6A0322E	A	Research in Special Topics (Ⅲ)	This course will let the students be trained with nanotechnology and electro-optic trnasfer techniques for connecting theories and operations.	1	B	Department of Marine Engineering	SDG6,SDG15,SDG14,SDG11,SDG7,SDG9
2023	1121	Bachelor	3	B6A0316S	A	Research in Special Topics (I)	It is expected that students who study this topic can cooperate with each other to prove the theory and practice of electromechanical and structural technology.	1	B	Department of Marine Engineering	SDG1,SDG3,SDG4
2023	1112	Master	1	M34014AW	A	The Seminar of Environmental Microorganisms	We will introduce the definition and ecology of microbes, the existence of microorganisms in life and the role-played on the environments and the related application of microorganisms. Core learning outcomes: 1. The students should be conversant with basic microbial ecology and the related knowledge. 2. The students should be able to use basic knowledge of microbial ecology for further scientific reports reading and writing.	3	B	Institute of Marine Biology	SDG6,SDG14
2023	1112	Bachelor	3	B6C03629	A	Control Systems Laboratory	Understand basic control theory and the application of automatic control systems through experiments.	2	A	Department of Communications Navigation and Control Engineering	SDG9
2023	1112	Master	1	M02013NT	A	Food quality management	In recent years, food safety incidents have been frequently reported. To ensure the safety of food for the people, knowledge of quality food management was required. The application and implementation are critical to business operations and factory production. The course conduct a single plan or program to evaluate the cost of execution, and explains the "Food Quality Management" from basic concepts to application skills.	3	B	Institute of Food Safety and Risk Management	SDG2,SDG12,SDG3,SDG6,SDG8
2023	1121	Bachelor	4	B6D042ND	A	Engine Factory Practice	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards for "Keeping a Safe Watch" as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2.	2	B	Department of Marine Engineering	SDG4
2023	1112	Bachelor	2	B6C020V9	A	Microprocessor System	Understand microprocessor architecture and the latest technologies and trends. And has the ability to analyze and design microprocessor control technology.	3	B	Department of Communications Navigation and Control Engineering	SDG8,SDG9
2023	1112	Bachelor	2	B9D023KN	B	English Listening and Reading (Intermediate)	This course is aimed at cultivating reading and listening skills for the TOEIC exam, which is the threshold for school graduation. It leads students to explain the TOEIC question bank, test-taking strategies and watch videos on various topics. At the same time, CNN/BBC interactive videos are sometimes played in class. The content of the video is mainly business English and workplace English. In addition to helping students cope with the TOEIC (Toeic) exam, it is also of great benefit to future job hunting and workplace coping. In the class, students who have achieved high TOEIC scores will be invited to teach how to prepare for the TOEIC exam and share their practical experience in taking the exam. All students who take this course will receive several imported question banks and audio files for the new TOEIC question types in March 2018 for free.	2	B	Institute of Applied English	SDG4
2023	1112	Doctorate	1	D74013N1	A	Seminar on Administrative Law - Administrative Act	In-depth study of several key issues in administrative behavior law, thereby training students in administrative law research methods and cultivating students' independent research abilities.	2	B	Institute of the Law of the Sea	SDG1
2023	1112	Master	1	M7401640	A	Seminar on Administrative Law	In-depth study of controversial issues in administrative law theory and practice	2	A	Institute of the Law of the Sea	SDG4
2023	1112	Master	1	M34013O7	A	The Application of Bioinformatics in Marine Microbiology	Recently, high-throughput sequencing has been widely used in various scientific fields. As information continues to increase, it is very important to organize, summarize and use this huge amount of data. In this course, students will learn the application of bioinformatics in marine microbes. Through the related publications reading, analysis, and practical operation of the software, students will have a preliminary understanding of biological information.	3	B	Institute of Marine Biology	SDG14
2023	1112	Bachelor	1	B9502Y81	A	Curriculum Development and Design	1 · Understand basic concepts of curriculum development and curriculum design 2 · Explore curriculum implementation and the current trend of curriculum development and curriculum design in Taiwan 3 · Cultivate the competence of developing and designing curriculum	2	H	Teacher Education Center	SDG3,SDG4
2023	1112	Bachelor	3	B6D03T79	A	Machine Design	1. To enable course participants to have basic abilities in mechanical component design during the course. 2. Able to select appropriate components based on design requirements to achieve the required functions. 3. Able to use design manuals and catalogs or shared parts to complete component design that meets specifications.	3	B	Department of Marine Engineering	SDG4,SDG9
2023	1112	Bachelor	2	B6802Q92	B	Managerial Accounting	The objective of this course is to understand the fundamental concept of managerial accounting. In this course, I will focus on the following topics: understanding cost terms, concepts, and classifications, job-order costing, process costing, cost behavior, cost-volume-profit relationships, variable costing, activity-based costing, profit planning, standard cost, flexible budgets, and investment center and transfer pricing. Collectively, this analysis should provide a broad basis for understanding the comprehensive role of management accounting.	3	B	Department of Transportation Science	SDG12,SDG17
2023	1112	Bachelor	3	B6A0341F	A	Refrigeration and Air Conditioning	The objective of this course is to impress the students with the power plants of refrigeration and to propose various methods to increase the COP of the refrigerating system.	3	A	Department of Marine Engineering	SDG4

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Bachelor	1	B6F011LV	A	Introduction to Marine Engines	By introducing various types of ships and their propulsion (main) and auxiliary systems, students can establish their initial concepts in the field of marine engineering, which will help them further study related theoretical and practical courses.	3	B	Department of Marine Engineering	SDG1,SDG8,SDG11,SDG13,SDG17,SDG16,SDG14,SDG12,SDG10,SDG7,SDG2,SDG4,SDG5
2023	1112	Bachelor	1	B32014RE	A	Introduction to Food 3D Printing Technique	•Familiarize students with 3D printing technology •Develop presentation skills and foster team work •Develop ability to design and 3D print complex devices/tools	3	B	Department of Food Science	SDG9
2023	1121	Bachelor	1	E4911H61	D	Chinese	By reading the classic works of thinkers and writers, students can not only improve the foundation of their language skills, but also be able to reflect on their own life situations and attitudes towards others, so that classics can be integrated into personal life. In addition, we hope to train students in coordination, communication, oral expression, image communication and other abilities through discussions, reports, multimedia teaching and other methods.	2	A	Office of the Academic Affairs	SDG4
2023	1112	Master	1	M02013T4	A	Advances in Foodborne Pathogens	This course aims to cover the general background of novel foodborne pathogens and their mechanisms of pathogenesis in life. This course would help them to make reports on relevant issues, and to better understand how to face the importance of microbes in food safety in their lives.	3	B	Institute of Food Safety and Risk Management	SDG3,SDG12,SDG14,SDG16,SDG15,SDG13,SDG11,SDG4,SDG6,SDG7
2023	1112	Bachelor	3	B5303S79	A	Complex Variables	Complex analysis is widely used in the field of EM waves and has applications in transmission line analysis and radio frequency component modeling. This course aims to introduce the theories and applications of complex variable functions and inspire students to explore the mysteries of this mathematics.	3	B	Department of Electrical Engineering	SDG4
2023	1112	Bachelor	3	B5343P23	I	Electrical Lab.	This electrical engineering experiment focuses on signal coding of communication systems, including data compression (image or voice), data error correction and various joint coding. It is designed to enable electrical engineering students to further understand the design and operation principles of communication systems. Students participating in the course will become familiar with the coding mechanism in modern communication systems through thematic data study and system simulation. During this period, the teacher will also guide students to evaluate their technical ideas through program simulation or theoretical analysis.	1	A	Department of Electrical Engineering	SDG4
2023	1112	Bachelor	2	B5302D82	A	Signals and Systems Lab.	Use computer simulation to verify the basic theories and techniques of signal processing and system analysis.	1	B	Department of Electrical Engineering	SDG4,SDG8,SDG14,SDG17,SDG9
2023	1112	Bachelor	3	B5343P23	B	Electrical Lab.	Enable students to understand the basic principles of semiconductor optical components through topic practice, establish the specifications and parameters that need to be considered through comsol simulation, and build the ability to analyze and design semiconductor optoelectronic components.	1	A	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Master	1	M32012OS	A	Technical English in Food Science	This given course focuses on improving the English language skills and uses interactive learning methods to allow students to easily understand and strengthen their food-related knowledge. It includes an introduction on how to prepare for applying to foreign research institutes or schools and provides guidance on techniques for searching for overseas food-related jobs	2	B	Department of Food Science	SDG4,SDG5
2023	1121	Bachelor	4	B6A0216S	A	Research in Special Topics (I)	This course is mainly based on training undergraduate students to innovate ideas and put them into practice. It uses basic academic theories and relevant practical methods to implement innovative ideas step by step. It is expected to match academic theory with practice to cultivate innovative ideas among undergraduate students. competitiveness.	1	B	Department of Marine Engineering	SDG2,SDG6,SDG10,SDG14,SDG12,SDG7
2023	1121	Bachelor	3	B6C034WJ	A	Quantum Computing with an Introduction to Quantum Mechanics	Quantum computer is a popular research field in recent years. It is an extension of information science based on the quantum mechanical effects of physics. Quantum computers cover a wide range of issues. The focus of this course is to introduce the foundation of quantum computing and the basic concepts of quantum mechanics, as well as the necessary core mathematical tools, including linear algebra and probability.	3	B	Department of Communications Navigation and Control Engineering	SDG4
2023	1121	Master	1	M3B01AGD	B	Big Data Analysis in Agricultural and Genetic Diagnostics	Implementation of blockchain on animal health, disease diagnosis and prevention.	1	B	Department of Bioscience and Biotechnology	SDG3
2023	1112	Bachelor	3	B56034QU	A	Foundation design of offshore wind turbine (OWT)	1.Introducing the process of offshore wind farm development 2.Introducing the regulations of offshore wind turbine foundation design 3.Introducing the requirements of site investigation and the parameters interpreted from the environmental data. 4.Introducing the consideration of offshore wind turbine foundation design 5.Foundation concept design practice	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG7,SDG11,SDG13,SDG9
2023	1121	Bachelor	3	B6D03N2Q	A	Advanced Fire Fighting Aboard	Ship fire-fighting training is according to STCW code, all ship’ s crews need to take the basic training, and deck officers need to learn more about advanced fire-fighting knowledge and skills. Which can decrease the loss in in the disaster and save human life and ship’ s property.	2	B	Department of Marine Engineering	SDG9,SDG15,SDG17,SDG14,SDG11,SDG12
2023	1121	Bachelor	4	B6D040KO	A	Turbine	This course provides the background knowledge and practical work to support : 1.operation and theoritical evaluation of turbine engine performance and capacity 2.maintaining safety of engine equipment, system and services. 3.basic ability for managing and planning the steam turbine power plant.	3	B	Department of Marine Engineering	SDG7,SDG13
2023	1112	Bachelor	1	E4Q01099	A	Work Shop Practice	1. Allow students to understand different processing machinery and understand the introduction of machine control and measurement tools. 2. Use the learned technical knowledge of processing machinery to facilitate the processing of parts, and ensure that the processed parts can accurately achieve the required dimensional accuracy and assembly coordination.	2	A	Department of Marine Engineering	SDG4
2023	1112	Bachelor	1	E4Q01099	B	Work Shop Practice	1. Allow students to understand different processing machinery and understand the introduction of machine control and measurement tools. 2. Use the learned technical knowledge of processing machinery to facilitate the processing of parts, and ensure that the processed parts can accurately achieve the required dimensional accuracy and assembly coordination.	2	A	Department of Marine Engineering	SDG4
2023	1112	Bachelor	3	B8903I3J	D	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B6D03V73	A	First Aid and Medicine Knowledge	Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	2	B	Department of Marine Engineering	SDG3
2023	1121	Bachelor	1	B7101NNY	A	Service-Learning Program-Campus Service(II)	Cultivate students'' maintenance of school campus cleanliness and service sentiment and mind for school teachers and students, and then expand to social and national service sentiment.	0	T	Department of Merchant Marine	SDG3,SDG5,SDG16,SDG17,SDG6,SDG4
2023	1112	Master	1	T46010AG	A	Seminar on local government law	Study the theory of local autonomy, explore issues related to local autonomy in our country, and clarify doubtful points in the current legal system.	2	B	Institute of the Law of the Sea	SDG5

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Bachelor	3	B9500Y51	B	Internship	1. Be able to understand the meaning and connotation of educational internship, and understand the teacher's duties from the actual teaching situation. 2. Be able to acquire basic professional knowledge to prepare to serve as a teacher and have the ability to grow professionally. 3. Be able to understand the conditions for teacher certification and teacher selection examinations, and actively prepare for relevant examinations. 4. Be able to discover and think about relevant issues in teaching situations, and gradually cultivate teachers' professional attitudes.	4	H	Teacher Education Center	SDG4
2023	1112	Master	1	T46011ZM	B	Administrative Law - General Principles(II)	Introduction to basic theories of administrative law	2	A	Institute of the Law of the Sea	SDG6
2023	1112	Doctorate	1	D5301R93	A	Digital Signal Processing	To enable students to understand the theory and practice of digital signal processing	3	B	Department of Electrical Engineering	SDG3,SDG17,SDG14,SDG4,SDG9,SDG8
2023	1112	Bachelor	1	B6F0102C	A	Personnel Safety and Social Responsibility	The objective of this course is to establish students' concept and capability to ensure their own personal safety and responsibility to the society when working as a marine engineer.	1	B	Department of Marine Engineering	SDG1,SDG10,SDG13,SDG17,SDG16,SDG12,SDG8,SDG4,SDG7
2023	1112	Bachelor	4	B6D04WPS	A	Marine Engineering and Maritime Practice Lectures	Teaching objectives: This course is jointly taught by the teacher and invited business executives. Most of the business managers are alumni of the department (school) who have performed outstandingly in the field of marine engineering and shipping. The course content covers marine engineering and shipping practices, which is advanced and diverse. It is suitable for students from the Department of Marine Engineering who choose to work on ships or onshore for different careers. It is also suitable for students from the Department of Shipping Management and related departments. The teaching goal is to cultivate overseas university students with a sense of responsibility and an international outlook.	2	B	Department of Marine Engineering	SDG4,SDG13,SDG9
2023	1112	Bachelor	3	B6A0316S	A	Research in Special Topics (I)	This course is mainly aimed at cultivating students' following abilities, hoping that the theory and practice of applied electrical technology can cooperate with each other and be confirmed. 1. Stimulate students' ability to explore problems and creative thinking. 2. Cultivate students' ability to solve problems independently and think logically. 3. Learn the basic skills and attitudes of applied electricity. 4. Strengthen data processing and analysis capabilities. 5. Train research report writing and presentation skills 6. Cultivate students' ability to create creative special projects. 7. Cultivate students' ability to work in teams.	1	B	Department of Marine Engineering	SDG7,SDG11
2023	1121	Bachelor	3	B6D03S51	A	Heat Transfer	BASIC CONCEPTS OF THERMODYNAMICS AND HEAT TRANSFER HEAT CONDUCTION EQUATION STEADY HEAT CONDUCTION TRANSIENT HEAT CONDUCTION FORCED CONVECTION NATURAL CONVECTION BOILING AND CONDENSATION HEAT TRANSFER RADIATION HEAT TRANSFER	3	A	Department of Marine Engineering	SDG7,SDG13
2023	1121	Bachelor	3	B6D0310W	A	Applied Mechanics Experiment	The main purpose of applied mechanics experiment course is to provide students with hands-on experiment opportunities. On the one hand, it introduces various measuring principles and the use of instruments, on the other hand, it cultivates the basic ability of experiment planning and design, and at the same time, it strengthens the learning effect of theoretical courses through the confirmation of theory and experiment. Understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level.	1	A	Department of Marine Engineering	SDG4
2023	1112	Bachelor	1	B8901IMS	A	Introduction to Materials Science (II)	This course mainly follows the Introduction to Materials Science (I) course and continues to introduce the basics of materials science and engineering such as non-ferrous metal alloys, ceramics, and semiconductors. Students taking this course will learn about materials science training, explore the relationship between "material properties" and "structure", and use these "structure-property" relationships as the basis to "design" or "Manage" the structure of materials to complete materials engineering training.	3	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Bachelor	1	B7601Z1V	A	Consumer Behaviors	From the perspective of service science, it will lead students to familiarize themselves with related consumer behavior topics in the tourism industry. The teaching goal is to let students learn professional knowledge of service marketing and consumer behavior, and have the ability to conduct independent research.	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG5,SDG11,SDG10,SDG8,SDG12
2023	1112	Master	1	M570197P	A	Computation Theory	To study computational models, the formal language theory and time complexity classes.	3	B	Department of Computer Science and Engineering	SDG8,SDG9
2023	1112	Master	1	M83014IN	A	Marine environmental management	This course provides comprehensive knowledge and important concepts on marine environmental management. By using the integrative theory and case study (national and international), inspires students to think, analyze and discuss the related issues as well as present their ideas. This training aims to enhance the students' ability to participate in the national marine affairs and international cooperation in the future.	3	B	Institute of Marine Environment and Ecology	SDG4,SDG14,SDG13
2023	1112	Master	1	M37010VI	A	Independent Study on Management of Coastal & Offshore Fishery Resources in Taiwan	The aims of this class are to provide information on the management and conservation status of the coastal and offshore fisheries in Taiwan. Different types of coastal and offshore fisheries in Taiwan will be introduced, and the current management measures and conservation issues as well as the complexities and difficulties encountered regarding these fisheries will be discussed. It is expected that after completing this course, students will realize the importance of the conservation and management of the coastal fishery resources of Taiwan and devote themselves to the sustainable use of these precious resources in the future.	2	B	Institute of Marine Affairs and Resource Management	SDG12,SDG14
2023	1121	Bachelor	4	B76042PI	A	The Practice of Cruising	1. Introduction of international cruise operations, management and business in practices. 2. Advanced knowledge of cruise industry and possible related chains. 3. In deeper understanding on the potential of international cruise market, with attraction and motivation for job opportunities and options in this industry.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG8,SDG9,SDG17
2023	1112	Bachelor	1	B6F010Z3	B	Fire Prevention and Basic Fire Fighting	Fitting in with request of support level of This curriculum fits with table A-VI/1, STCW 78 as amendment management ability in demand of marine engineering. The course contents are basic principle of fire fighting, kinds of fire extinguisher and its agents, knowledge and responsibility of crews.	1	B	Department of Marine Engineering	SDG3,SDG14,SDG11

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	3	B6D031KC	A	Proficiency in Survival Craft and Rescue Boat	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliances, and refers to the Model Course 1.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats and the 2010 Amendment Rules of the 1978 STCW International Convention. VI/2, SOLAS international convention and LSA regulations and other newly revised contents, taking into account the teaching of relevant necessary knowledge or skills, teaching students to understand and be able to correctly operate and use life-saving equipment, and at the same time become familiar with the use of various survival communication equipment and in harsh weather conditions Professional knowledge and skills such as raft maneuvering, and then master and control how individuals and all passengers on the ship can effectively avoid dangers under abnormal ship conditions, and cope with various difficulties in dangers, so as to achieve the purpose of self-rescue and rescue.	2	B	Department of Marine Engineering	SDG11,SDG14,SDG12
2023	1121	Bachelor	4	B6D041AM	A	Lectures for Marine Engineering Practice	This course is jointly taught by teachers and invited business executives. Most of the business managers are alumni of the department (school) who have outstanding performance in the field of marine engineering and shipping. The course content covers marine engineering and shipping practices, is advanced and diverse, and is suitable for marine engineering departments. Students who choose to pursue different careers on board ships or land-based employment are also suitable for students in the Shipping Management Department and related departments to take this elective course, with the teaching goal of cultivating overseas university students with a sense of responsibility and an international outlook.	2	B	Department of Marine Engineering	SDG3,SDG7,SDG13,SDG4
2023	1112	Master	1	M74012DL	A	Seminar on Law of Marine Insurance and General Average	China's marine insurance market follows international business practices and uses standardized contract clauses drawn up by British insurance business groups, with English law as the governing law. Therefore, the goals of this course: 1. Let students understand British statutory law, case law and practice. The relationship and function among the three types of standardized contract. 2. Students should be able to clearly distinguish the similarities and differences between British law, Chinese law and practical provisions. 3. When encountering relevant issues, students should be able to conduct independent research and propose solutions.	2	B	Institute of the Law of the Sea	SDG14
2023	1121	Bachelor	3	B71032HX	B	Introduction to bulk carrier	This course follows STCW Code chapter A-II/1, regulation A-II/1, International Maritime Organization (IMO) Model Course 7.03 MONITOR THE LOADING, STOWAGE, SECURING AND UNLOADING OF CARGOES AND THEIR CARE DURING THE VOYAGE, -2.1.1 The Effect of Cargo, Including Heavy Lifts on the Sea-worthiness and Stability of the Ship, and -2.1.2 Safe Handling, Stowage and Securing of Cargoes. The course takes into account the transfer of relevant necessary knowledge or skills, and attaches equal importance to theory and practice to achieve the following teaching objectives: 1. To enable students to understand the principles of loading, unloading and storage of bulk goods. 2. Enable students to understand the loading and unloading characteristics of bulk carriers. 3. Enable students to understand the impact of bulk carrier loading, unloading and storage on ship safety.	2	B	Department of Merchant Marine	SDG4,SDG8,SDG17,SDG14
2023	1121	Bachelor	3	B6D03P17	A	Electronics	Based on semiconductor, with the introduction of applications of electron and electric current, helping students to get familiar with the operation, testing and maintenance of electrical circuits, equipments and control instruments.	3	A	Department of Marine Engineering	SDG8,SDG9
2023	1112	Master	2	M74221RZ	B	Code of Civil Procedure	Let students have a comprehensive understanding of civil procedure law after studying it, which will serve as the basis for improving their knowledge of procedure law.	2	A	Institute of the Law of the Sea	SDG1,SDG11,SDG17,SDG16,SDG12,SDG10,SDG2,SDG5,SDG8,SDG9,SDG4
2023	1112	Master	2	T46231RZ	A	Code of Civil Procedure	Let students have a comprehensive understanding of civil procedure law after studying it, which will serve as the basis for improving their knowledge of procedure law.	2	A	Institute of the Law of the Sea	SDG1,SDG12,SDG17,SDG16,SDG11,SDG4,SDG8,SDG9,SDG10,SDG5,SDG2
2023	1112	Doctorate	1	D66010J3	A	Optimal Control	Learn the best control techniques for linear systems so that the system can achieve optimal performance requirements	3	B	Department of Marine Engineering	SDG4,SDG9
2023	1112	Master	1	M04013YL	A	Indigenous Culture and the Law of the Sea	Aboriginal issues belong to both the field of law and political philosophy, and this course aims to provide relevant issues. It is expected to guide students' interest in research on aboriginal law and policy.	2	B	Master Degree Program in Ocean Policy	SDG4,SDG14,SDG16,SDG17,SDG10
2023	1112	Bachelor	1	B760137J	A	Fundamental Japanese	After learning the correct pronunciation of Japanese and hiragana and katakana, we will focus on basic sentence patterns, focusing on grammar and conversation. From noun sentences, adjective sentences and then verb sentences, learn simple daily life conversations from the simple to the deep and cooperate with daily idioms.	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG17
2023	1121	Bachelor	2	B5102N5U	A	Introduction of Database System	Database system is a necessary tool to the world nowadays. Due to the importance of big data, any fields or businesses cannot live without it up to a country or down to a person.	2	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG12,SDG10,SDG5,SDG8,SDG4,SDG9
2023	1112	Bachelor	2	B89022Q5	A	Introduction to Crystal Structure and X-ray Diffraction of Materials	Introduction to Crystal Structure and X-ray Diffraction of Materials	3	A	Department of Optoelectronics and Materials Technology	SDG4,SDG16
2023	1112	Master	1	M57014IO	A	Software Design	Software design is the core technology of software engineering. A quality software system cannot be built without good design. This course aims to let students understand the basic concepts and advanced software design methods and learn how to perform low-level design (code-level design) and high-level design (architecture-level design) of software systems. The course will teach and practice important software design methods, such as design patterns, refactoring, domain-driven design, and clean architecture, and guide students to conduct design analysis for existing software projects and construct design solutions with good quality for new software projects.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Master	1	M83013S8	A	Case Study in Marine Ciliate	This course further provides comprehensive concepts and knowledge of marine ciliate and discusses its relationship with environments and marine microbial food web by reading and discussing scientific articles. Students are training for the ability of independent thinking and presentation.	3	B	Institute of Marine Environment and Ecology	SDG4,SDG14
2023	1112	Bachelor	3	B330325L	A	Application of Fishery Database	Introducing the query application of aquatic products related databases	2	B	Department of Aquaculture	SDG14
2023	1112	Bachelor	1	B9D01969	H	English	The course aims to help students acquire the ability to write and, especially, read college-level reading materials fluently. This class presents to students major grammatical concepts of the English language and review the most basic vocabulary (affixes and roots, words, phrases and collocations).	2	A	Institute of Applied English	SDG4,SDG10
2023	1112	Bachelor	1	B9D01969	E	English	The purpose of this course is to improve students''''''' abilities in vocabulary, listening and reading.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	2	B9D0232P	C	Maritime English Conversation	An introduction to the elementary level of seafarers'''' English proficiency based on IMO-Model.	2	B	Institute of Applied English	SDG10
2023	1112	Bachelor	1	B9D01969	P	English	This course will focus on English reading skills, which are an essential part of language and academic development. Learners will read short passages in English and answer comprehension questions. Learners will evaluate and develop opinions, which they will be invited to share with classmates; they will develop increased confidence with English reading with various genres.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	1	B9D01969	7	English	I. the rule of the word II. Grammar: sentence structure III. analyze the text IV. TOEIC Practice	2	A	Institute of Applied English	SDG1,SDG10,SDG16,SDG4,SDG13,SDG7

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Master	1	M3201A59	A	Food Colloid	Students will be able to demonstrate both an understanding of, and ability to apply: Classification and Functions of colloidal system in food Types of colloidal system in food	2	B	Department of Food Science	SDG9
2023	1121	Bachelor	3	B7713NA7	A	Seminar in Ocean Business Management Ⅰ	This is a one-year course. The aim of this course is to allow students to integrate and apply the basic theory of business management training, and to discuss academic studies with the instructors in related areas, supplemented by the study and exploration of related research papers. Furthermore, this course will develop students'' skills of problem discovering and solving, data collection and analysis, teamwork and communication, as well as essay writing and presentation.	2	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1121	Bachelor	1	B7701ZDX	A	Introduction to Business Management	1. To help students understand business from various facets and how enterprises implement the knowledge and concepts, which are described in the book, in their daily operations. 2. To train students to analyze the problems involved in business administration and management and try to fix them. 3. To guide students in writing reports and giving presentations.	3	A	Bachelor Degree Program in Ocean Business Management	SDG4,SDG5,SDG10,SDG12,SDG11
2023	1121	Bachelor	2	B6F0216S	A	Research in Special Topics (I)	This course will let the students be trained with nanotechnology, fuel cell new energy and electrochemical techniques for connecting theories and operations.	1	B	Department of Marine Engineering	SDG7,SDG12,SDG14,SDG9
2023	1112	Master	2	M9A024IZ	A	Statistical data analysis	1. The content of this course includes two parts: narrative statistics and inferential statistics. The main purpose is to introduce the basic concepts of statistics and cultivate statistical skills so that students can know and use them. Lay a good foundation for future learning and application. 2. Ability to conduct data analysis using appropriate statistical models. 3. Be able to operate commonly used statistical software.	2	B	Institute of Education	SDG4
2023	1112	Master	2	M7302DPA	A	Seminar on Moral Dilemma and Policy Analysis	This class provides a basic introduction to ethical topics relating to individual encounters, economic issues, diversified social/ business morals, Harvard Business or Management case studies (e.g. moral dilemmas), legal/ justice issues, and movie-watching activities. By means of interactive learning, this course aims to encourage students to engage in all-English group discussions via various materials and dialogues.	3	B	Department of Shipping and Transportation Management	SDG4,SDG5,SDG16
2023	1112	Master	2	T4I02L9L	A	Supply Chain Management Case Study	This course is positioned to discuss supply chain management-related topics in a simple and in-depth manner from the perspective of corporate business strategies. In order to allow EMBA students to develop their strengths, the content of this course is designed based on the Participant-Centered Learning advocated by Harvard School, hoping to effectively enhance the learning interest and effectiveness of EMBA students.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	3	B6D030HK	A	Mechanism	This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level.	3	A	Department of Marine Engineering	SDG4
2023	1121	Master	1	M66010KT	A	Engineering Analysis	Establish knowledge of advanced engineering analysis and learn how to solve Calculus of variation, synergy principle, ordinary differential equations,partial differential equations and Inverse method. Understand real meaning of physical parameters by mathematical training.	3	B	Department of Marine Engineering	SDG4
2023	1121	Doctorate	2	D6612I38	A	Special Topics	To culture the students with advanced knowledge and research ability in the field of marine engineering. This course will emphasize the definition of research areas, collecting research materal, training of research methods, analyzing and solving engineering problems · writing research reports, presenting skills in written and oral forms.	1	A	Department of Marine Engineering	SDG1,SDG2,SDG3,SDG4,SDG6,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG7,SDG17,SDG16,SDG5
2023	1112	Master	2	M3322I38	B	Seminar	To know how to prepare and present good seminars	1	A	Department of Aquaculture	SDG14
2023	1121	Doctorate	1	D34014AV	A	Topics in Hydrothermal Vent Ecosystem (Ⅰ)	To study extreme ecosystem of hydrothermal vent and its impact on physiology and ecology of marine organisms and their adaptations.	1	B	Institute of Marine Biology	SDG14
2023	1112	Bachelor	2	B9502Y3E	A	Teaching Methods and Materials of Mathematics	1. Understand the current curriculum structure and teaching material characteristics of primary school mathematics. 2. Through theoretical and case analysis, explore the current teaching methods and strategies of primary school mathematics. 3. Combine with "teaching demonstration" and become proficient in relevant teaching materials and teaching methods.	2	H	Teacher Education Center	SDG4
2023	1112	Master	2	M9C020JC	A	Topics on Oceanic Faith and Folklore	Taiwan is a society of immigrants. During the arduous process of crossing the sea and settling down, faith was the spiritual pillar of immigrants and fishermen. Among them, Mazu faith and Wang Ye faith, as well as Emperor Baosheng and Guanyin are the most representative ones. Therefore, this course hopes to further understand the historical allusions, rituals, social functions, etc. of maritime beliefs through the gods most familiar to Taiwanese people.	2	B	Institute of Oceanic Culture	SDG17
2023	1121	Bachelor	4	B38043Z5	A	Internship of Marine Biotechnology Industry	Through this course, students are able to connect the knowledge of marine biotechnology industry and the industry management. Cultivate students with practical skills in marine biological science and technology, and students can increase their energy to learn marine biotechnology industry expertise before entering the workplace. It is importance that students can make use this course to understand and learn about working attitudes and cooperation with colleagues in the workplace. Through this course, students can also actively learn about biotechnology industry affairs and understand the environment of marine biotechnology industry in the future.	9	B	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG8,SDG9
2023	1121	Bachelor	2	B3802NNX	A	Service-Learning Program-Campus Service (I)	Enhance students' willingness and enthusiasm to care for themselves, the living environment and participate in public affairs, and provide students with feedback to the school, department, community and society, and implement a balanced holistic education of five educations through life experience.	0	T	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG11
2023	1121	Bachelor	4	B3B042GE	A	Interactive industry operating	Let students intern in the industry for 2 months to experience, learn, observe and understand the actual operation of the company and market demand first-hand, so that they can understand their strengths and areas that need to be strengthened, adjust themselves, and prepare for employment in advance.	2	B	Department of Bioscience and Biotechnology	SDG4,SDG9,SDG8
2023	1121	Bachelor	3	B5103119	A	Intermediate Fluid Mechanics (I)	This is a theoretical fluid mechanics course. We continue the basic fluid mechanics course in the sophomore year and move on to more complex and practical advanced fluid dynamics topics. The entire course is divided into two semesters. The first semester focuses on viscous flow, and the second semester focuses on potential flow. In the first semester, important flow concepts such as laminar flow/turbulent flow, boundary layer, and resistance will be introduced.	3	B	Department of Systems Engineering and Naval Architecture	SDG6,SDG9,SDG11,SDG7,SDG13
2023	1112	Master	2	M04024NU	A	International IP Laws(II)	This course will help students learn the major international IP treaties and explore the IP legal issues in the globalized world.	2	B	Master Degree Program in Ocean Policy	SDG7,SDG17,SDG16,SDG14,SDG13,SDG12,SDG11,SDG9,SDG8
2023	1121	Bachelor	1	B5101U24	A	Statics	The main goal of this course is to enable engineering students to learn the basic theories of engineering mechanics, and then be able to solve engineering problems in a logical manner, so as to cultivate students' understanding and analysis ability of engineering mechanics problems.	2	A	Department of Systems Engineering and Naval Architecture	SDG4,SDG8,SDG12

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2023	1121	Bachelor	1	B5101K3J	A	Introduction to Naval Architecture	This course is an introduction to a series of courses for Shipbuilding Engineering. It is the basic course for students. understand the functions and characteristics of various ships; (inform) be familiar with the basic knowledge of ships; (Interpretation) master the current situation, process and future development of ship design and construction; (demonstration) encourage students'' interest and self-learning ability in the ship related courses in the future. (inspiration)	3	A	Department of Systems Engineering and Naval Architecture	SDG7,SDG12,SDG9,SDG13,SDG17,SDG14
2023	1121	Master	1	M5101J74	A	Ship Hydrodynamics	This course continues the "Intermediate Fluid Mechanics" in the undergraduate department and enters into three more difficult fluid mechanics topics: "unsteady potential flow effects" (unsteady potential flow effects), "turbulence modeling" and "wave mechanics" "(water wave mechanics). These three are not only important fluid mechanics topics related to ship motion, but also serve as an important foundation for broader marine fluid mechanics topics and have many applications, such as ship drag reduction and ocean wave energy, as well as current flow research. Trends are closely related. Its teaching objectives are: 1. Make students familiar with relevant physical theories and mathematical models. 2. To enable students to understand the current research trends in fluid mechanics and their relevance to classroom content. 3. Continuing and combining the secondary fluid mechanics courses of the university department to enable students to obtain complete basic fluid mechanics training	3	B	Department of Systems Engineering and Naval Architecture	SDG6,SDG7,SDG9,SDG13,SDG11
2023	1112	Bachelor	3	B3B030IR	A	Molecular diagnosis	To teach the molecular diagnostics and its clinical application	3	B	Department of Bioscience and Biotechnology	SDG3,SDG4
2023	1112	Doctorate	1	D33014QC	B	Special topic in corals	Enable students to have a better understanding of corals	3	B	Department of Aquaculture	SDG14
2023	1112	Doctorate	1	D09014QE	A	Special topics in ecology of marine viruses	Understanding the relationship between marine viruses and the marine microbial food web	3	B	Doctoral Degree Program in Ocean Resource and Environmental Changes	SDG4,SDG14
2023	1112	Bachelor	1	B6F01M9N	B	Calculus II	The main objective of Calculus is for students to learn the basics of the calculus of functions of one variable. They will study transcendental functions, limits, differentiation and an introduction to the Riemann integral, culminating with the Fundamental Theorem of Calculus. They will also apply these ideas to a wide range of problems that include the equations of motion, related rates, curve sketching and optimization. The students should be able to interpret the concepts of Calculus algebraically, gra	3	A	Department of Marine Engineering	SDG1,SDG4
2023	1112	Bachelor	2	B7202U62	B	Applied Electronics	This course familiarizes students with basic theory, analysis and design of electronic circuits with semiconduntor devices.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	2	B9D023KN	A	English Listening and Reading (Intermediate)	This course is aimed at cultivating reading and listening skills for the TOEIC exam, which is the threshold for school graduation. It leads students to explain the TOEIC question bank, test-taking strategies and watch videos on various topics. At the same time, CNN/BBC interactive videos are sometimes played in class. The content of the video is mainly business English and workplace English. In addition to helping students cope with the TOEIC (Toeic) exam, it is also of great benefit to future job hunting and workplace coping. In the class, students who have achieved high TOEIC scores will be invited to teach how to prepare for the TOEIC exam and share their practical experience in taking the exam. All students who take this course will receive several imported question banks and audio files for the new TOEIC question types in March 2018 for free	2	B	Institute of Applied English	SDG4
2023	1112	Bachelor	4	B3304L00	A	Fish Taxonomy	Teach students to understand the rich and complex world fish populations, fish nomenclature regulations, memorization of fish scientific names, query and application of databases and illustrations, geographical distribution of fish families, etc.	3	B	Department of Aquaculture	SDG14
2023	1112	Bachelor	1	B7201L66	A	General Physics	A calculus based physics course for engineering/physical science majors.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG10,SDG5
2023	1121	Bachelor	2	B77020ZB	A	Financial Management	The objective of this course is to explain the concept, theory and technique of corporate finance. With fully understanding of newly developed financial management technique for local and international corporate, students may work for general enter-prises when they graduated. Furthermore, the topics such as risk management, investment portfolio and the cost of capital may construct a basic concept of financial planning for individual person and family.	3	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1121	Bachelor	2	B7712J40	A	Statistics	ries of statistical analysis method. The methods of collecting, summarizing, analyzing, presenting, and interpreting data will also be included. The concepts, theories, and methods of col-lecting, summarizing data are called Descriptive Statistics. The concepts, theories, and methods of analyzing, presenting, and interpreting data are called Inferential Statistics. Students are expected to learn the basic concept of statistics and have ability of applying statistical analysis in practice.	3	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Master	1	T4501D7I	A	Shore Protection	This course is mainly divided into two major themes. The first part understands the types of coastal disasters, such as long-term coastal erosion, damage to coastal structures, typhoon attack, and large-scale immersion disasters caused by tsunamis. Methods, including meteorology, tides, waves, coastal currents, drifting sand, coastal changes, etc. on the coast of Taiwan, and introduce the planning and design of rigid construction methods such as seawalls, jetties, and offshore embankments. Secondly, we will discuss the coastal protection effect of the improved ecological construction method and the natural construction method of submerged dykes, and its application in Taiwan''s coastal protection. Finally, it introduces the natural coastal protection facilities of vegetation and artificial reefs (such as oyster reefs, coral reefs, etc.), and finally carring out the introduction of the concept and method of flexible construction methods	3	B	Department of Harbor and River Engineering	SDG11
2023	1121	Bachelor	1	B7601MA1	A	Port Administration and Management	Students who study marine tourism management understand the overall concept of "port" as the source of marine tourism, including: 1. Port concept: port facilities, port development trend, port operation, port management 2. Port-related: port ships, cruise ships; sightseeing ports, aircraft; airport terminal introduction 3. Border management: border goods management, border license management, border quarantine management	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG9,SDG16,SDG17,SDG14,SDG8
2023	1121	Doctorate	1	D66011IR	A	Advanced Navigation (I)	The science of Navigation has entered the electronic era with a great deal of enthusiasm and energy. Man-made sateliite have replaced the stars in the attention of the moderd navigator. The science is moving forward at a fast rate. But, during this time of great change, we have not perhaps paused to think how the classical methods of navigation seems to be deliberately designed to avoid the use of the calculus. For this reason methods are still in use which are only approximations.	3	B	Department of Marine Engineering	SDG1,SDG4,SDG2,SDG3,SDG6,SDG8,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG7
2023	1112	Bachelor	2	B5302D82	B	Signals and Systems Lab.	Use computer simulation to verify the basic theories and techniques of signal processing and system analysis.	1	B	Department of Electrical Engineering	SDG3,SDG17,SDG9,SDG8,SDG14,SDG4

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2023	1121	Doctorate	1	D66012I9	A	Seaworthiness Inspection	To teach students: (1)The important of seaworthiness inspection and Port State Control(PSC) Procedures; (2) to familiar the regulations related with seaworthiness inspection; (3) to understand measures of PSC Procedures; (4) to understand the regulations related to CIC inspection / more detail inspection / contravention / detention etc. in PSC Procedures.	3	B	Department of Marine Engineering	SDG12,SDG16
2023	1121	Doctorate	1	D66014K6	A	Battery Energy Storage and Management System	Familiar with the charging technology, power estimation and balancing mechanism of the energy storage system constructed by battery modules, as well as real-time monitoring and thermal management technology to avoid thermal runaway in the charging and discharging process.	3	B	Department of Marine Engineering	SDG7
2023	1112	Bachelor	1	B6F01NNY	B	Service-Learning Program-Campus Service(Ⅱ)	1. To Cultivate Students'''' Sense of Identity and Solidarity with the Campus. 2. Let Students Learn Self-Development, Self-Awareness and Social Concern from Service. 3. Empower Students to Change the world with Optimism and Empathy.	0	T	Department of Marine Engineering	SDG4
2023	1112	Doctorate	1	D89011AR	A	Semiconductor Material and Device Characterization	The purpose of this course is to provide an introduction to the physical properties and characterization techniques for semiconductor materials and devices, which are of extraordinary importance in the modern electronics devices. We will focus on the basic measurement of conductivity via 4-point probe technique to fundamental transistor characterization. In the final section, the measurement in field effect transistor by application of advance material analysis tools will also included.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Master	1	M74011RY	B	Civil Code - General Principles	To enable students to understand and become familiar with the General Principles of Civil Law as the basis of my country's civil legal relations code, its important contents such as the subject of rights, objects of rights, legal acts, dates and periods, etc., and to master the relationship between them.	2	A	Institute of the Law of the Sea	SDG1,SDG12,SDG16,SDG11,SDG5,SDG8,SDG10,SDG9,SDG4
2023	1121	Master	2	M74021S5	B	Civil Code - Kinds of Obligation	Civil law is an important standard for resolving disputes between private individuals. Each treatise on debt stipulates the validity of contracts that may occur in social transactions and serves as the criterion for our social transactions.	2	A	Institute of the Law of the Sea	SDG1,SDG4,SDG5,SDG12,SDG16,SDG11,SDG10,SDG9
2023	1121	Doctorate	1	D74012VE	A	Seminar on Constitutional Law I - Civil Rights	The main normative contents of the Constitution are basic rights and state organization. This course mainly focuses on basic rights, including the meaning, development, function and various basic rights. The teaching goal is to inspire students' awareness of rights, clarify the boundaries of rights, and train students in in-depth thinking and logical operations in the hermeneutics of basic rights.	2	B	Institute of the Law of the Sea	SDG15
2023	1121	Doctorate	2	D74023TY	A	Seminar on Administrative Law I - Administrative Organization	In-depth study of several key issues in administrative organization law, thereby training students in administrative law research methods and cultivating students' independent research abilities.	2	B	Institute of the Law of the Sea	SDG17
2023	1112	Doctorate	2	D7222I38	A	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG9
2023	1112	Bachelor	1	B7721992	A	Introduction to Computer Structure	This course introduces the commercial package software Excel, and uses program design logic and syntax to construct a data processing model and create the required application forms and reports. In this course students will learn and discuss 1. Programming: including programming logic and structure, and designing solutions through a problem-oriented approach. 2. Data processing: including data planning and data format processing to make effective use of data. 3. Programming and data processing: Integrate programs and data operations to build the required applications. 4. Other assistive technologies: including discussion of other input or output modes	2	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	1	B6F0115Z	B	The First Stage Team Training on Ship	Allow students to experience and understand the basic environment, equipment and systems of the engine room on a real ship, and observe the operating procedures of a real ship	1	B	Department of Marine Engineering	SDG4,SDG9,SDG17,SDG14
2023	1112	Doctorate	1	D6601MB6	A	Special topics in Maritime Risk Assessment	Greater heed has been paid to maritime safety since several catastrophic accidents in the 1990s. For the improvement of maritime safety, a systematic risk assessment is required. The lecture is planning to give students the understanding in risk assessment and safety management to a certain extent. It will also enable students to be familiar with quality and quantitative risk assessment techniques currently and commonly applied in the literature and to appreciate the future trend of such a subject.	3	B	Department of Marine Engineering	SDG3,SDG14
2023	1112	Doctorate	1	D530143K	A	Introduction to Intellectual Property Rights and Patents	***This course can also be taken by undergraduate students or master’ s students or by master’ s students. Patent rights, trademark rights, copyrights, integrated circuit circuit layout, business secrets and other intellectual property policies, regulations and systems	3	B	Department of Electrical Engineering	SDG8,SDG11,SDG10
2023	1121	Bachelor	1	B3B0145Q	A	Biology Lab. (I)	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	A	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	3	B5343P23	V	Electrical Lab.	In the form of practical projects, students are taught how to find topics, set topics, implement them, and analyze and discuss possible improvement methods. To equip students taking this course with the abilities they should have before attending graduate school in the future. There are three directions for guiding topics: 1. Zhihui Life Technology 2. Marine artificial intelligence 3. Introduction of cross-field technology For details, please refer to the Smart Life Technology Laboratory website http://sltlab.ntou.edu.tw/	1	A	Department of Electrical Engineering	SDG5,SDG9
2023	1112	Master	1	M570195K	A	Scientific Visualization	1, Learning the techniques for exploring data by using graphics and numerical algorithms. 2, To possess the capability of deigning computer programs for processing and displaying data.	3	B	Department of Computer Science and Engineering	SDG4,SDG9,SDG8
2023	1112	Master	1	M57011Y5	A	Advanced Micro Hardware and Software Design	This course will instruct and inspire students on integrating computer science, material science, optics, and electric engineering discipline to create special purpose devices that can be seen daily. Students should have a solid understanding of basic knowledge including computer programming, electronics and circuits, digital logics, and embedded systems since this is a one semester course covering a very broad range and assuming that basic understanding is present. A final project must be completed, including both software and hardware components, at the end of this course to receive credit.	3	B	Department of Computer Science and Engineering	SDG9,SDG17,SDG14,SDG11

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2023	1112	Bachelor	2	B9D023L4	B	Listening and Reading (Elementary)	Course Description: There are 4 main principles on which the course is based: rich input, reading and listening strategies, language awareness and self-expression. The program provides a variety of practice and tasks that ensure all learners build reading and listening skills. Course Objectives: 1.To develop critical thinking and discussion skills. 2.To acquire deeper understanding of vocabulary and grammar. 3.To use successful reading and listening strategies. Required Texts: 1. World Class 1A(東華書局). 2. Handouts Course Requirements and Grading System: Class attendance: Class attendance will be monitored and students who have more than 2 unexcused absences will be withdrawn from the class. Presentation/Role play: Presentation requires close knowledge of chosen text. 10 persons a group. 50 minutes for each presentation. Attendance 25% Participation 25% Report and presentation 25% Mid-term Exam + Final Exam (open book exam) 25% Total 100%	2	B	Institute of Applied English	SDG1,SDG2,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG7,SDG6,SDG5,SDG17,SDG16,SDG15,SDG14,SDG4,SDG3
2023	1112	Bachelor	1	B9D01969	1	English	The course aims to help students acquire the ability to write and, especially, read college-level reading materials fluently. This class presents to students major grammatical concepts of the English language and review the most basic vocabulary (affixes and roots, words, phrases and collocations).	2	A	Institute of Applied English	SDG4,SDG10
2023	1112	Bachelor	1	B9D01969	T	English	I. the rule of the word II. Grammar: sentence structure III. analyze the text IV.TOEIC Practice	2	A	Institute of Applied English	SDG1,SDG4,SDG5,SDG7,SDG10,SDG11,SDG16,SDG13
2023	1112	Bachelor	1	B7201L6K	A	General Physics Lab.	Lab. Session for General Physics (II). Students get hands-on experience from working with general physics lab.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG10,SDG5
2023	1112	Master	9	M600112S	A	NTOU Lecture of Experience in Heritage	Let students understand Taiwan's historical evolution, industrial market changes and corporate needs	3	B	College of Electrical Engineering and Computer Science	SDG9,SDG11
2023	1112	Bachelor	1	B7201NNY	B	Service-Learning Program-Campus Service (II)	Cultivate students' virtues of responsibility, self-discipline, diligence, service and mutual assistance and cooperation.	0	T	Department of Mechanical and Mechatronic Engineering	SDG3,SDG11
2023	1112	Bachelor	2	B9D023L1	A	English Listening and Speaking (High-Intermediate)	Course Description and Objective: The objective of this course is to increase the student’ s English listening comprehension by: •listening for gist •listening for details •listening for topics •listening for intonation in complex sentences •listening for agreement / disagreement •making inferences •understanding word stress in compound nouns	2	B	Institute of Applied English	SDG4
2023	1112	Master	1	T4A01MB8	A	Methods for Optimization	Optimization is a common problem faced in many fields. In the decision-making process, when faced with various options, how to choose the best one is what optimization needs to solve. The purpose of this course is to enable students to understand the principles and applications of optimization algorithms, with a view to developing independent analytical abilities and applying optimization algorithms in related research or work.	2	B	Department of Merchant Marine	SDG11,SDG12
2023	1121	Bachelor	1	B7711992	A	Introduction to Computer Structure	This course mainly allows students to establish basic knowledge of electronic computer software and hardware. It mainly covers topics such as introduction to computers, operating systems, Internet, software engineering, information systems, and databases. Students can have a basic understanding of electronic computers and make related applications.	2	A	Bachelor Degree Program in Ocean Business Management	SDG9
2023	1112	Bachelor	3	B7603035	A	Green Tourism and Sustainable Development	This course introduces green tourism from the theoretical perspectives of “sustainable development” and “social and solidarity economy.” The ideas and practices of sustainable development and social and solidarity economy bring new insights of rethinking and practicing tourism in current Taiwan. The objectives of this course are as follows. 1. Students will understand the theories and practices of “social and solidarity economy”, “sustainable development” and “green tourism” from the global perspectives and how these concepts are applied to Taiwan. 2. This course will provide students with methods to do field work and turn their investigation into workable projects. 3. This course encourages students to design and run the project by teamwork in order to facilitate the capacity of cooperation and communication.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG1,SDG5,SDG8,SDG11,SDG12,SDG10
2023	1112	Bachelor	4	B6A0422C	B	Research in Special Topics (VI)	The application of computational fluid dynamics (CFD) to engineering problems, rather than grid-building techniques, discretization methods, CFD algorithms, or numerical stability.	1	B	Department of Marine Engineering	SDG9,SDG14
2023	1112	Bachelor	3	B6D034OC	A	Engineering Technology and Design of Ship II	Students can understand the operation and process of ship design department from this course, extensively learn the basic knowledge and skills of ship design, and establish the capabilities before entering the workforce and being a ship designer.	3	B	Department of Marine Engineering	SDG4,SDG9

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2023	1112	Bachelor	1	B9500Y57	A	Educational Philosophy	1. Be able to understand the connotation of education and philosophy and the relationship between them. 2. Be able to understand the basic connotation and factions of educational philosophy. 3. Be able to collect information on topics related to educational philosophy and report learning experiences. 4. Be able to use the connotation of educational philosophy obtained through learning to think about modern related educational issues.	2	H	Teacher Education Center	SDG4
2023	1112	Master	1	M9A01ED3	A	Study on Educational Philosophy	1. Be able to understand the basic connotation of educational philosophy. 2. Be able to collect and understand information on topics related to educational philosophy and report learning experiences. 3. Be able to conduct special research and reports on selected educational philosophy research topics.	2	B	Institute of Education	SDG4
2023	1121	Bachelor	1	B92A8G01	A	Tai Chi Chuan (Beginner)	1. Cognition (1) Understand the basic concepts and principles related to Tai Chi exercise and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to Tai Chi. (2) Understand the relationship between exercise and healthy life, cultivate self-interest in exercise, and then develop regular exercise habits. (3) Understand the common sense of Tai Chi exercise. 2. Skills (1) Exercise fitness related to Tai Chi and have the ability to demonstrate Tai Chi. (2) Learn the basic movement methods and skills of Tai Chi and become proficient in Tai Chi routines. 3. Affection (1) Ability to abide by rules, work as a team, and compete fairly. (2) Cultivate your temperament so that you can appreciate the beauty of Tai Chi movement.	0	A	Office of Physical Education	SDG3,SDG5
2023	1112	Bachelor	2	B93021HN	A	All-Out Defense Education Military Training-International Situations	This course mainly studies regional cooperation and conflict, and uses classroom lectures, special discussions, video viewing, etc. to achieve the following teaching objectives: 1. Cultivate students' independent thinking and analysis abilities. 2. Train students' information application and oral expression skills. 3. Strengthen students' legal concepts and moral education. 4. Enhance students' understanding of cultural soft power, and then participate in society and love the country.	2	B	the Student Affairs	SDG10,SDG16,SDG17
2023	1121	Master	1	M34010RI	A	Introduction to the literature in Phycology	This course is designed for students who are interested in research in algae-related projects. The goal is to improve algal knowledge through literature reading and discussion as well as special/topic reports in the classroom.	3	B	Institute of Marine Biology	SDG4,SDG14
2023	1121	Bachelor	4	B39044KU	A	Applied Food Hypersensitivity	1.To provide students easily apply the knowledge learned from the class to further self-reading, research, and other purpose. 2.To realize the basic characteristics on human immune response 3.To understand food allergy mechanism 4.To train graduate student how to prepare and present a good oral talk on food allergy topics.	2	B	Department of Food Science	SDG3,SDG4
2023	1112	Master	1	M74011S0	B	Civil Code-Property	Civil law is an important norm for resolving private disputes, and property rights is an important area of property law. The purpose of this course is to give students an overall understanding of the property rights system of civil law. In addition to learning methods for resolving disputes, this course , and can also serve as the basis for a more in-depth study of private law.	2	A	Institute of the Law of the Sea	SDG1,SDG17,SDG16,SDG12,SDG11,SDG10,SDG9,SDG8,SDG5,SDG4,SDG2
2023	1112	Bachelor	1	B9501YH1	A	Psychological and Educational Measurement	1. Students can understand the basic concepts related to educational testing (including: basic abilities such as multiple-choice testing, testing ethics, interpreting tests, and test question analysis). 2. Be able to understand the quantitative basis of psychological testing. 3. Prepare and administer actual tests through course explanations.	2	H	Teacher Education Center	SDG4,SDG10
2023	1112	Bachelor	1	E4A01VCN	B	Celestial Navigation	1. Possess the ability to use celestial bodies to determine the ship''s position in celestial navigation as required by the STCW Convention and its amendments at the management level and operation level. 2. Understand the knowledge and abilities required by the model courses of the International Maritime Organization 7.01 Captain and Chief Mate and 7.03 Navigators in Charge of Navigation. 3. Possess the knowledge and ability of the details stipulated in the Celestial navigation in the nautical examination of seafarers.	4	A	Department of Merchant Marine	SDG4,SDG17,SDG5
2023	1112	Master	1	T4501P9H	A	Inspection and Management of structures	The maintenance and management of structures consists of a series of processes such as inspection, evaluation, repair, and reinforcement. According to the national Internal and external experience, the funds required for regular inspection and maintenance are far lower than the disaster losses caused by neglect of maintenance management. lose. This course mainly introduces the detection, evaluation, and maintenance methods of structures, as well as the software of maintenance management systems. Hardware architecture enables students to understand the maintenance and management of structures.	3	B	Department of Harbor and River Engineering	SDG8,SDG9
2023	1112	Bachelor	2	B9D023KW	B	English Conversation (High-Intermediate)	Course Description and Objective: The objective of this course is to increase the student' s spoken English communication skills by: •improve fluency with regular speaking practice •enhance pronunciation •develop grammatical accuracy •expand vocabulary •increase confidence	2	B	Institute of Applied English	SDG4
2023	1112	Bachelor	1	B9D01969	V	English	This course is designed to help learners build vocabulary, improve reading comprehension, reinforce writing skills, develop conversational skills, and raise cultural awareness.	2	A	Institute of Applied English	SDG4,SDG17
2023	1112	Bachelor	1	B9D01969	U	English	The main objective of this course is to improve students' reading skills and comprehension. Through a selection of well-written articles, the students will be asked to practice various reading skills such as thematic identification and analyses of written materials given. They will also have the opportunity of honing their writing skills.	2	A	Institute of Applied English	SDG10
2023	1112	Bachelor	1	B9D01969	A	English	This course is to establish students''fundamental skills and help them become efficient learners in reading and listening. They are also encouraged to build up an active learning attitude for pursuing ongoing advancement of English ability in an independent and effective manner.	2	A	Institute of Applied English	SDG4,SDG13,SDG17
2023	1112	Bachelor	4	B72041OY	A	Research and Practice in Special Topics (Ⅱ)	This course is a continuation course of thematic research and implementation. In addition to continuing to focus on specific topics, it cultivates students' following abilities: collecting necessary research information, conducting actual design, assembly and operation, or using computer software to conduct simulation analysis, and organizing research Results published report. The main goal is to produce prototypes of creations or conduct physical experimental verifications other than simulations to fully present the physical results of the topic.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	2	M7222I38	D	Seminar	By participating in academic lectures and discussions, students can improve their ability to publish papers, grasp research progress, and enhance academic and technical exchanges.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9

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2023	1112	Master	1	M7221I38	D	Seminar	By participating in academic lectures and discussions, students can improve their ability to publish papers, grasp research progress, and enhance academic and technical exchanges.	1	A	Department of Mechanical and Mechatronic Engineering	SDG7,SDG9,SDG12
2023	1112	Master	2	M7222I38	B	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	2	B7202S43	A	Thermodynamics (Ⅱ)	This course is to study the transformation and applications of energy and work. The thermodynamic relations of pure substances and mixtures and their applications are also covered.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG7,SDG9
2023	1121	Master	1	M3B11I38	A	Seminar	Teach students to learn about research-related knowledge and oral presentation skills	1	A	Department of Bioscience and Biotechnology	SDG4
2023	1121	Master	1	M3B012GI	A	Introduction to Inorganic Chemistry (Ⅰ)	This course included the basics of inorganic chemistry, bonding theory, acid-base chemistry, solid-state chemistry, coordination chemistry, and bio-inorganic chemistry. A foundational understanding of inorganic chemistry also allows students to begin research and prepare for the upper-level research subjects and courses.	2	B	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	2	B3102E04	A	Planktonology	Marine zooplankton (including larval fish) is a huge and diverse community that the morphology, ecology, and habits are extremely complex. They can influence the balance of the marine ecosystem through various lifestyles. This course aims to establish that students have the basic ability to classify zooplankton and fish larvae; meanwhile, they can understand the relationship between the ocean environment and the changes in zooplankton assemblage structure to possess the skills for analysis of marine environment changes.	2	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1112	Bachelor	3	B8903I3J	M	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	2	B9D023Z3	A	Classical Mythology and Arts (Intermediate)	This course aims to enhance students’ listening and reading skills of English by using different types of on-line sources. Each week in class, in addition to exploring numerous websites, students also need to try several on-line quizzes and games.	2	B	Institute of Applied English	SDG4,SDG14,SDG5,SDG10
2023	1112	Bachelor	1	B76011YB	A	Introduction to Ocean Culture	Maritime culture is characterized as fluid, diverse and inclusive just like the image of the sea. Confronted by challenges out of global capitalism, maritime culture provides us with different perspective in understanding these challenges. It also provides the historical contexts and practices of alternative values and beliefs for us to reframe and react to the challenges we face now. The main objectives of this course are as follows. 1. Students will understand different perspectives of maritime culture and its key concerns. 2. This course will develop students with the ability of critical thinking and interpreting literature in maritime culture studies. 3. Student will be able to grasp the meaning and connotation of maritime culture and be able to rethink and reframe and even response to contemporary social issues.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG11,SDG12,SDG17,SDG13
2023	1112	Bachelor	2	B6D0217X	A	Network Analysis	Network analysis is an extension of circuit science. This course is an important introductory subject for students in the Department of Marine Engineering to study electrical machinery-related courses. The basic concepts of this course will be used in subsequent electronics, electrical machinery, power systems, and even control theory. This course is intended to introduce circuit components and circuit analysis step by step, including DC analysis, AC analysis, first-order circuits, second-order circuits, Laplace transformation and network characteristic analysis. It is hoped that it can cultivate students' basic understanding and understanding of circuits and motor courses. concept.	3	B	Department of Marine Engineering	SDG11
2023	1112	Bachelor	1	B95013U2	A	Inquiry and Practice Topic in Science	1. Explore the concept and significance of teaching. 2. Understand the important theories, principles, principles and teaching methods of teaching. 3. Be able to design teaching plans and use relevant teaching resources in the field of natural sciences. 4. Be able to understand the purpose of teaching objectives and lesson plan design. 5. Be proficient in the basic methods, principles, strategies and techniques of teaching in the field of natural sciences. 6. Apply teaching principles, methods, and strategies in teaching demonstrations. 7. Become an effective teacher and an innovative teacher. 8. Understand the application of exploration and implementation in the field of natural sciences.	2	A	Teacher Education Center	SDG4
2023	1121	Bachelor	3	B3B23L6S	A	Microbiology (Ⅱ)	This lecture leads the students know the principle of microbiology. There are three main purposes: 1.Let students know the fundamental knowledge of viruses. 2.To investigate the interaction between microbe and host. 3.Let students know the concepts of microorganisms and human disease.	3	B	Department of Bioscience and Biotechnology	SDG3,SDG6,SDG4
2023	1112	Doctorate	2	D3322I38	B	Seminar	To know how to prepare and present good seminars	1	A	Department of Aquaculture	SDG14
2023	1121	Master	1	M32014L0	A	Artificial Intelligence and Food Safety	This course innovatively connects food safety with the most popular artificial intelligence nowadays, providing students with a blueprint for safer food in the future. With the support of existing science and technology, students can learn this course to expand their horizons and conceive the direction of future food safety. The first half of the course will introduce how to use sensors to perform detection at various stages of food manufacturing and the aftermarket to obtain data. This data is classified by computer calculations, and can be used with artificial intelligence to perform prediction, early warning, automation and other applications, such as : Combined with the application of the Internet of Things in food production and sales history, automatic supply chain management, and food safety warnings, students are trained to apply it to various situations encountered in the food industry. Food safety management is based on risk assessment, so the application of risk assessment in food safety management will be introduced in the second half of the course. For huge data such as risk assessment and dietary surveys, big data and artificial intelligence calculation and analysis can be used to more accurately Quickly obtain many important parameters such as: food residue tolerance, recommended daily intake, toxic equivalent, etc., to establish the basis for food safety management.	2	B	Department of Food Science	SDG9
2023	1121	Master	1	M5101M52	A	Structural Dynamics	This course will base on dynamics and mechanical vibration, and continue to explore professional knowledge in related fields. The course will explore the basic concepts of structure dynamics, including equations of motion, system natural frequencies, single-degree-of-freedom systems, multi-degree-of-freedom systems, continuous systems and the use of learned theories. The dynamic response analysis of vibration isolation and vibration absorption design are also including in this course.	3	B	Department of Systems Engineering and Naval Architecture	SDG3,SDG9,SDG11
2023	1112	Bachelor	3	B56034JU	A	Application of Ocean Simulation Model	Numerical models for planning and design in ocean and coastal engineering are introduced in the course. The goal of the course is to apply the models to study wave shoaling, refraction, diffraction, breaking, bottom dissipation, wave and wave interactions, wave-current interactions and wave-structure interactions is a goal of the course. Students are able to understand coastal hydrodynamics based on the models and evaluate effects of coastal constructions on marine environments.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG14,SDG13

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2023	1112	Master	1	M9C014QB	A	Seminar in Cultural Theory and Research	Cultural studies can be said to regard daily life as a kind of problem awareness. Through cultural observation, social phenomena can be explained more comprehensively. Therefore, cultural studies is a discipline spanning political science, psychology, sociology and other fields. This course will teach the history of cultural studies and important theories, research methods, and major topics, allowing students to learn to observe and analyze issues that they take for granted in daily life.	2	B	Institute of Oceanic Culture	SDG10
2023	1112	Bachelor	1	E4Q01PST	A	Personal Survival Techniques	This course complies with the International Maritime Organization (IMO) Model Course7.03-3.4 Operate LIFE-SAVING In accordance with the standards of APPLIANCES, taking into account the teaching of relevant necessary knowledge or skills, the following teaching contents are arranged: The course is revised in accordance with the 1995 International Convention for the Safety of Life at Sea and the 1978 STCW International Convention. It teaches students to recognize and understand the limitations of the marine environment and its possible risks, and at the same time, they are familiar with various marine Professional knowledge and skills for survival, and then master and control how to effectively avoid personal situations under abnormal ship conditions. Avoid dangers and cope with various difficulties in dangers to achieve the purpose of survival.	2	A	Department of Marine Engineering	SDG3,SDG8,SDG14,SDG4
2023	1112	Bachelor	1	B9D01969	F	English	1. the rule of the word 2.Grammar: sentence structure 3.analyze the text 4.TOEIC Practice	2	A	Institute of Applied English	SDG1,SDG16,SDG13,SDG10,SDG7,SDG4
2023	1112	Doctorate	1	D660111C	A	Technical English Writing	This course has a goal to help student to improve his/her reading and writing about technical subject matters, including forms of writing commonly employed in technical organizations, and to examine the nature of technologically-assisted communication, focusing somewhat on professional communication among scientists and engineers.	3	B	Department of Marine Engineering	SDG4
2023	1112	Doctorate	1	D86011YP	A	Main Topics in Seismology: Earthquake and earth model	1. To guide the students: a. the main research topics in seismology b. the importance of those topics c. what kind of science problems the research results can answer 2. To train the students to think about the topic this interests them and learn how to start their researches in the beginning.	3	B	Institute of Earth Sciences	SDG4
2023	1112	Bachelor	3	B810352H	A	GPS Positioning System	Introducing the principle of Global Position System and its applications	2	B	Department of Marine Environmental Informatics	SDG4,SDG5,SDG9,SDG10
2023	1112	Bachelor	2	B7202P53	A	Electric Machinery	Let students understand the basic electrical and mechanical principles, and then acquire the ability to analyze electrical and mechanical systems.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG11,SDG9
2023	1112	Master	1	M72012OW	A	Heat Treatment of Metals	The structural materials for ocean engineering and construction must satisfy the requirments of high strength, high toughness and corrosion resistance. The purpose of heat treating is to make a metal more useful by changing its mechanical properties to reach the safety standard rules and the market demand. Through heat treating, a metal can be made for the harder, stronger, and more resistant to impact. The major objectives of the different kinds of thermal treatments are: soften the material for improved workability, increase the strength or hardness of the material, increase the toughness or resistance to fracture of the material, stabilize mechanical or physical properties against changes that might occur during exposure to service environments, insure part dimensional stability, relieve undesirable residual stresses induced during part fabrication.	3	B	Department of Mechanical and Mechatronic Engineering	SDG8,SDG9
2023	1112	Master	2	T4I02I1M	A	International Investment	This course introduces the theory and practice of financial trading. We will explain the theory and application of asset allocation (investment portfolio), transaction analysis, fund management, financial tools, risk management, emotion management, and behavioral finance. We hope to help students examine their own trading habits and understand common cognitive biases. And establish your own trading logic and philosophy.	3	B	Department of Shipping and Transportation Management	SDG1,SDG4,SDG10,SDG16,SDG8
2023	1112	Bachelor	2	B5302HDS	A	Hardware Description Languages and Logic Synthesis Lab.	1. Teach students to learn FPGA design and the use of CAD tool software. 2. Teach students the principles and applications of digital systems and implement the designed circuits on FPGA.	1	B	Department of Electrical Engineering	SDG4
2023	1112	Master	1	M720108Q	A	Engineering Tribology	A fundamental introduction of Tribology from the view points od mechanical design and manufacture	3	B	Department of Mechanical and Mechatronic Engineering	SDG9,SDG12
2023	1112	Bachelor	1	B9E0138X	A	Museum and Cultural Creative Industry	1. Understand the development, categories, and functions of museums. 2. Through case analysis and discussion at home and abroad, let students understand the relationship between museums and the cultural and creative industries. 3. Cultivate students' understanding of museums (parks), industrial sites, and urban design and their ability to apply them to the cultural and creative industries.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG8
2023	1112	Bachelor	3	B01034O0	A	IP laws and Fair Trade Act (II)	This course will equip students with the knowledge of major IP laws and learn the legal issues arise facing the technological advancement.	2	B	Bachelor Degree of Ocean Law and Policy	SDG1,SDG3,SDG8,SDG11,SDG13,SDG17,SDG16,SDG14,SDG12,SDG9,SDG7
2023	1112	Master	1	M570171E	A	Reconfigurable System on Chip	The main goal of this course is to teach students to use reconfigurable system design software and hardware to quickly design and complete chip system design. This course is used to cultivate excellent digital circuit design talents and teach students to have the ability to implement embedded systems using both CPU and FPGA.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Bachelor	2	B5322P18	B	Lab for Electronics	Training the students in experiments and increaseing the understanding of electronics.	1	A	Department of Electrical Engineering	SDG4,SDG5,SDG9,SDG8
2023	1121	Bachelor	2	B5102080	A	Engineering Economics	Introduce basic concepts such as cash value, future value, annuity value, rate of return and their relationship with time and interest rates. After completing this course, students will be able to make economic and financial decisions on project plans using cash value analysis, future value analysis, annuity value analysis, rate of return analysis, etc.	2	A	Department of Systems Engineering and Naval Architecture	SDG1,SDG3,SDG12
2023	1121	Bachelor	2	B5102E8F	A	Fundamental Java Programming	The class teaches students basic programming capability using Java programming language.	3	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG17,SDG10,SDG5,SDG8,SDG4,SDG9
2023	1121	Bachelor	2	B510201P	A	Practical Ship Survey	Practical ship building supervision and inspection courses to enable students to have knowledge of ship building and inspection when planning and building or ship maintenance and repair in the future	3	B	Department of Systems Engineering and Naval Architecture	SDG7,SDG9,SDG13,SDG17,SDG14,SDG12
2023	1121	Bachelor	2	B7702NNX	A	Service-Learning Program-Campus Service(I)	This course is major to cultivate the maintaining and service spirit in campus, and then extend the service sentiment toward to society and country.	0	T	Bachelor Degree Program in Ocean Business Management	SDG3,SDG4
2023	1112	Doctorate	1	D5301879	A	Nonlinear System Analysis	Introduce concepts of nonlinear system analysis and design	3	B	Department of Electrical Engineering	SDG4
2023	1121	Master	2	T4Y024E0	A	The case study of AI thesis and project writing	Case study of AI (Artificial Intelligent)	2	B	Department of Transportation Science	SDG4,SDG12,SDG9,SDG8

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	4	B39041K4	A	Food Industry Extracurricular Practice	During the internship process, students can not only enrich their work experience and understand the dynamics outside the school, but also verify the theory and practice they learned in school, implement the learning effect, and at the same time increase their employability and opportunities.	9	B	Department of Food Science	SDG4,SDG9,SDG8
2023	1121	Bachelor	4	B3904U25	A	Therapeutic Nutrition and Laboratory	1. To enable students to understand the role of food in disease control and treatment, and to develop students' core knowledge in preparing disease diets. 2. Integrate knowledge in the field of food science to inspire students' motivation for active learning and cultivate their interest in innovative research and development. 3. Strengthen students' abilities required for employment or further study, such as information collection, peer cooperation, expression and communication, comprehensive analysis and logical thinking.	3	B	Department of Food Science	SDG2,SDG3,SDG9,SDG4
2023	1112	Bachelor	2	B71021O5	A	Transportation of Dangerous Goods	This course is designed to give a full explanation on the isolation, stowing, packing, and transportation of dangerous goods, enable carriers to acquire a deeper understanding of dangerous goods, strengthen disaster prevention and emergency response measures during transportation, and ensure the effective implementation of disaster rescue and aftermath handling. This course can improve the professional knowledge and competence of the personnel engaged in dangerous goods, enhance the safety management culture of dangerous goods, and guarantee the safety of life, environment, and property.	2	B	Department of Merchant Marine	SDG4
2023	1112	Bachelor	2	B56024QX	A	Introduction to Marine Engineering of Offshore Wind Power	Preliminary understanding of the projects and capacity requirements in marine engineering of offshore wind power	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG7,SDG9,SDG14
2023	1112	Bachelor	3	B5343P23	D	Electrical Lab.	Learn the basics of unmanned vehicle systems and UAV software and hardware integration and related control technologies	1	A	Department of Electrical Engineering	SDG4
2023	1121	Bachelor	2	B6F02D05	B	Security Duty	This Course is based on the "International Shipping and Port Facility Security Code (ISPS Code)" in XI-2 Special measures to enhance maritime security in the International Convention for the Safety of Life at Sea (SOLAS)and STCW A- VI/5. enabling students to know The ISPS CODE and duty.	2	B	Department of Marine Engineering	SDG4,SDG6,SDG13,SDG15,SDG12
2023	1121	Bachelor	1	B7701N8U	A	Transportation	This course mainly provides the basic knowledge of transportation that students in the Department of Economics and Management must have, cultivates students' interest in caring about and analyzing transportation issues, and lays the foundation for future courses on land transportation, air transportation, and maritime transportation.	3	A	Bachelor Degree Program in Ocean Business Management	SDG7,SDG11,SDG9
2023	1121	Doctorate	2	D73021G8	B	Independent Study	Students work on their research report of independent research project and make a presentation. They learn the skills of logical thinking and presentation, by citing related research work, clarifying problems, setting purposes, planning their studies required to solve such problems.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	2	B9D023KO	A	English Grammar and Exercises (Intermediate)	The course aims to help students become aware of, and be able to use, a variety of ways to express their ideas in writing. In this course, the emphasis is placed on doing, rather than analyzing the grammatical structures under practice. Provided with practice combining sets of sentences, students are asked to use a variety of sentence combining and expanding techniques to produce more specific, concise and fluent sentences.	2	B	Institute of Applied English	SDG4,SDG10
2023	1112	Bachelor	1	E4901ZTS	A	The optional reading of prose and verse which Tang	1. This course mainly teaches Tang and Song prose, poetry, and lyrics; study them together with classmates. 2. Learn about traditional culture and cultivate interest and ability to appreciate Chinese literature.	2	C	Office of the Academic Affairs	SDG1,SDG2,SDG3,SDG12,SDG16,SDG17,SDG15,SDG10,SDG5,SDG4
2023	1112	Bachelor	1	B380145S	A	Biology Lab. (Ⅱ)	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	A	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG15,SDG14
2023	1112	Bachelor	2	B38023UG	A	Applied Phycology	To understand well to characteristics and propagation and culture technology of marine plants	2	B	Bachelor Degree Program in Marine Biotechnology	SDG6,SDG13,SDG14,SDG11
2023	1112	Master	1	M7221I38	A	Seminar	By participating in academic lectures and discussions, students can improve their ability to publish papers, grasp research progress, and enhance academic and technical exchanges.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M7221I38	B	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M74011S4	A	Seminar on Economic Administrative Law	1. Help students grasp the specific aspects of economic and administrative phenomena and legal issues in modern administrative activities, guide the formation of their awareness of issues, and use interactive discussions to promote students' understanding of modern administrative law under the intersection of legal theory and judicial practice. Understand and systematically master important issues. 2. Select specific cases from the field of economic and administrative law for review. Through the collection and analysis of data in special reports and the writing of short essays, students can develop in-depth discussions and increase the ability to explore and advance analysis of controversial issues in administrative and legal matters.	2	B	Institute of the Law of the Sea	SDG3,SDG10,SDG12,SDG14,SDG16,SDG17,SDG15,SDG13,SDG11,SDG9,SDG6,SDG8
2023	1112	Doctorate	1	D810105O	A	Atmospheric Radition	Studying the principal of atmospheric radiation transfer	3	B	Department of Marine Environmental Informatics	SDG4,SDG5,SDG9,SDG13,SDG10
2023	1112	Doctorate	1	D8101I3F	A	Seminar (Ⅱ)	Through reading scientific articles or reporting personal research results, students can increase their knowledge of marine science and have the opportunity to discuss their research results with classmates and teachers.	1	A	Department of Marine Environmental Informatics	SDG4
2023	1112	Master	1	T4F014GF	A	Marine Popular Science Education Seminar	1. Know the sea, love the sea, and love the sea. 2. Understand the principles and teaching methods of marine education. 3. Have basic ocean concepts and understand marine science education''s development trend. 4. To deepen the concept of marine science education and transfer it to the teaching field.	2	B	Institute of Education	SDG4,SDG14,SDG15,SDG13
2023	1121	Bachelor	2	B3202M82	C	Microbiology Lab.(I)	This course aims to provide undergraduate students in this department with the basic experimental operation techniques necessary for microbial research work.	1	A	Department of Food Science	SDG4
2023	1121	Bachelor	2	B3202A3A	A	Food Products Technology (1)	The purpose of this course is to introduce various types of food processing methods and explain the chemical and physical changes of raw materials during processing.	3	A	Department of Food Science	SDG2
2023	1121	Bachelor	2	B320216J	B	Analytical Chemistry Lab(I)	Students are trained to obtain correct chemical analysis results with a rigorous attitude through practical operations, combined with academic knowledge.	1	A	Department of Food Science	SDG4,SDG13,SDG14
2023	1121	Bachelor	2	B320260C	A	Organic Chemistry(I)	The electron-movement oriented approach is employed to encourage the understanding of organic reactions. The basis biochemistry and environmental chemistry will also be covered in organic chemist`s veiw.	3	A	Department of Food Science	SDG1,SDG4,SDG13,SDG6,SDG3
2023	1121	Bachelor	2	B320260C	B	Organic Chemistry(I)	Use the dominant principle of electron movement to enhance students' understanding of organic chemistry, and emphasize the basic perspective of organic chemistry to increase their understanding of biochemistry and environmentally related organic chemistry.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B6A030I0	A	Appled Energy Experiment	The energy experiment course mainly allows students to apply the energy knowledge they have learned to daily life, allowing students to apply what they have learned through simple experimental operations. This course has 11 experiments, each of which is conducted by the department. Designed by each laboratory (Energy Laboratory, Energy Management Laboratory, Scientific Computing Laboratory).	1	A	Department of Marine Engineering	SDG1,SDG4

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2023	1121	Bachelor	3	B5103S51	A	Heat Transfer	The purpose of this course is to introduce the basic principles of the three heat transfer modes - conduction (Heat Conduction), convection (Heat Convection), and radiation (Thermal Radiation). After completing this course, students should be able to achieve the following abilities: 1. Be able to briefly explain the three modes of heat transfer and the related physical mechanisms, and be able to describe the governing equations of these three modes. 2. Be able to analyze simple heat conduction problems in steady state or transient state. 3. Be able to analyze simple thermal convection problems. 4. Able to analyze simple thermal radiation problems. 5. Be able to describe the physical meaning of dimensionless parameters related to heat transfer	3	B	Department of Systems Engineering and Naval Architecture	SDG6,SDG7,SDG9,SDG13,SDG11
2023	1112	Master	1	M33011PY	B	Introductory of Sea Food Quality	The quality of farmed fish depends not only on its intrinsic characteristics such as species, age and gender, but also on environmental factors such as feed regime, capture method and composition of diet. Fishes are different from land-based animals by their highly spoiled nature due to the postmortem chemical changes. Without proper refrigeration, the fast autolysis of muscle produce biogenic amines that are toxic to consumer. Farmed products are generally recognized much easily to maintain fresh than wild by their land based nature and also can be carefully manipulated to avoid toxic compounds accumulation. However, in aquaculture practice, most of the nutritious components are needed to supplement through formulated feed. The unique nature of postmortem changes in fish are needed to introduced to aquaculture major students.	3	B	Department of Aquaculture	SDG2
2023	1112	Master	1	M50012QS	A	Marine Corrosion and Protection	This course is designed for senior students who have learned fundamentals of material science, and provides the extensive knowledge about corrosion principles in metal and how to control corrosion as well, which can also be the basis of the further researching in corrosion related fields. 1. To understand the basic principles of corrosion. 2. To understand the forms and related mechanisms of corrosion. 3. To understand the prevention methods of corrosion.	3	B	College of Engineering	SDG4,SDG13,SDG15,SDG9,SDG8
2023	1121	Bachelor	2	B510208A	A	Engineering Mathematics (I)	The content of this course will focus on ordinary differential equations. These equations deal with functions of a single variable (we can usually think of this variable as time). Differential equations are the mathematical language used to express various laws of nature. Understanding the properties of differential equations and their solutions is the basic threshold for entering modern science and engineering. The scope covered by this course includes first-order ordinary differential equations, higher-order (including second-order) ordinary differential equations, and matrices. We hope that by the end of the semester, students taking this course will develop the following abilities: 1. Be able to use your own vocabulary to explain what a differential equation is, and define the basic terms of differential equations and matrix operations. 2. Be able to use basic theoretical analysis methods to solve homogeneous and non-homogeneous ordinary differential equations and systems of equations. 3. Be able to use basic qualitative analysis methods to explore the characteristics of solutions to ordinary differential equations. 4. Be able to use matrix-related theorems to explore the characteristics of linear algebraic equations; and obtain the eigenvalues and eigenvectors when the coefficient matrix is a square matrix. 5. Be able to use the principle of equilibrium and Newton's laws of motion to convert mechanical motion problems into mathematical equations, and explain the meaning of each term in a differential equation. 6. Be able to use appropriate theoretical analysis or graphical methods to solve differential equations and explain the physical meaning of their solutions	3	A	Department of Systems Engineering and Naval Architecture	SDG4
2023	1121	Bachelor	1	B5101M9J	A	Calculus (I)	The goal of this course is to familiarize students with the basic operation techniques of calculus and related basic engineering mathematics knowledge. Establish students' basic theoretical concepts and proficiency in operation rules for function limits, continuity, differentiation, and integrals, so as to lay the foundation for the mathematical abilities they will need in related disciplines in the future.	3	A	Department of Systems Engineering and Naval Architecture	SDG1,SDG9,SDG4
2023	1121	Bachelor	4	B51049C1	A	Introductions to Comoutational Fluid Dynamics	This course is an introductory course, with the goal of enabling students to understand the theory and methods of computational fluid forces through the discretization and analysis of ordinary differential equations and partial differential equations, and to understand the physical meaning of fluid mechanics through computational fluid force program writing and software applications. . Students who are interested in this course can learn advanced computational fluid dynamics knowledge in "Computational Fluid Dynamics" in the next semester.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG6,SDG7,SDG13,SDG14,SDG9
2023	1121	Master	1	M9A010M0	A	Educational Research Methods	1. Understanding the purpose and significance of educational research. 2. Being able to analyze educational issues and be aware of the educational research process. 3. Understand various general educational research methods and limitation. 4. Effectively conducting literature review, comment and debating. 5. Developing a research proposal and understanding the improvement of quality of research. 6. Being able to abide by the ethics of academic research.	3	A	Institute of Education	SDG4
2023	1112	Master	1	M04014PY	A	Maritime Criminal Justice Policy and Criminal Law (II)	To introduce the basic knowledge and the application of maritime criminal policy and criminal law	2	B	Master Degree Program in Ocean Policy	SDG10,SDG16,SDG14,SDG12
2023	1112	Bachelor	1	B56012TZ	A	Computer Programming & Data Processing	The course introduces the fundamental concepts of MATLAB programming language, including vectors/matrices, string, loops, plotting and visualization of data and importing/exporting data. By the end of the course the student will be able to translate mathematical method to Matlab code and evaluate the computational results using graphical representations.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4
2023	1121	Master	1	M67012E0	A	System design and implementation	The purpose of this class is to provide students for system implementation ability.	3	B	Department of Communications Navigation and Control Engineering	SDG4
2023	1112	Bachelor	3	B720315G	I	Case Study	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M7201T2M	A	Failure Analysis of Welded Structures	The interrelationship of design, fabrication, nondestructive evaluation, fracture mechanics, and reliability concepts in establishing the overall fitness-for-purpose of welded structures and equipment.	3	B	Department of Mechanical and Mechatronic Engineering	SDG9
2023	1112	Master	2	M7222I38	A	Seminar	By participating in academic lectures and discussions, students can improve their ability to publish papers, grasp research progress, and enhance academic and technical exchanges.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M7201V94	A	Neural Networks	Let students understand the neural network architecture, principles and algorithms, and enhance practical application experience through program design and example exercises, thereby acquiring neural network controller design skills and abilities.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG11,SDG9

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2023	1112	Master	1	M74010L9	A	Seminar on Administrative Procedure Act	1. To lay the foundation for students to master the basic legal principles of due administrative procedure protection, and guide the formation of their awareness of issues, with a view to stimulating their interest in advanced learning in cross-field research from different angles. 2. Interactive discussions are also used to promote students' understanding, analysis and systematic mastery of basic issues. 3. Supplemented by specific case review methods, and through data collection and writing of report papers, students can develop advanced research abilities to discuss in depth and grasp the direction of problems.	2	B	Institute of the Law of the Sea	SDG1,SDG5,SDG7,SDG9,SDG11,SDG16,SDG12,SDG10,SDG8,SDG6,SDG4,SDG3
2023	1112	Bachelor	2	B9502Y3A	A	Teaching Methods and Materials of Language Arts	1.students can understand and analyze the aims of chinese learning in 9-year continued curriculum 2.students can master the content of language material of primary school. 3.students can use every instructional methods of language 4.students can design and be engaged in teaching chinese.	2	H	Teacher Education Center	SDG4
2023	1112	Bachelor	3	B7703Q92	A	Managerial Accounting	The objective of this course is to understand the fundamental concept of managerial accounting. In this course, I will focus on the following topics: understanding cost terms, concepts, and classifications, job-order costing, process costing, cost behavior, cost-volume-profit relationships, variable costing, activity-based costing, profit planning, standard cost, flexible budgets, and investment center and transfer pricing. Collectively, this analysis should provide a broad basis for understanding the comprehensive role of management accounting.	3	A	Bachelor Degree Program in Ocean Business Management	SDG17
2023	1112	Bachelor	3	B5703723	A	Systems Programming	Be familiar with the implementation of system programs and understand the underlying computer system design	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Bachelor	3	B57031JQ	A	Android Mobile Device Programming	Be familiar with the development of mobile apps for Android platform	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Bachelor	3	B6A032K4	A	Appiled Eletrical Experiments	The purpose of this course is to enable students to apply the electrical knowledge they have learned to practice, and to apply what they have learned through simple experimental operations. In this course, a number of electrical application experiments are designed to guide students to plan final project practice, which can inspire students to explore problems and create thinking, and complete project proactice through teamwork learning, so that students have the ability to discover and solve practical problems.	1	A	Department of Marine Engineering	SDG9
2023	1112	Doctorate	1	D810131W	A	Julia Language Application on Numerical Methods	The Julia programming language is a new programming language in the scientific and engineering circles in recent years. It is very close to Matlab. However, the Julia programming language is open source, completely free to use, and the calculation efficiency is relatively fast. Therefore, the Julia programming language is introduced. Taught in this class. It is hoped that after the course, students will not only strengthen the basic knowledge of numerical methods, but also learn the latest foreign programming language technology and establish the basic ability to write programs for continued use and advanced learning in various fields in the future.	3	B	Department of Marine Environmental Informatics	SDG4,SDG13
2023	1112	Bachelor	2	B7202U6A	A	Applied Electronics Lab.	Be familiar with basic instrument operations, and understand the characteristics of electronic components and the functions of various basic analog and digital electronic circuits through electronic circuit experiments. In addition, this course will also introduce the application of LabVIEW graphic control software in experimental measurement of electronic circuits. This course will be conducted in the Mechatronics Integration and Control Laboratory funded by the Excellence in Teaching Program.	1	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	4	E4S04NBB	A	Information System Planning and Design	The purpose of this course is to enable students to understand the basic concepts of information system planning and the role of information system planning in the construction of information systems, and to introduce the points that should be paid attention to at each stage and the key factors for success in the process of information system development through theoretical cooperation and practice so that students can have an overall concept of information system construction	4	B	Department of Shipping and Transportation Management	SDG4,SDG17,SDG12,SDG11
2023	1121	Doctorate	1	D3B01160	A	Molecular Biology	Students possess molecular biology-related knowledge	3	A	Department of Bioscience and Biotechnology	SDG3,SDG9
2023	1121	Bachelor	2	B3202W95	A	Lactic Acid Fermentation Food	The teaching objectives of this course are aimed at promoting undergraduate students in our department to have a better understanding of the industry history, domestic and international industry status, and future development focuses of fermented dairy products. This is intended to enhance the learning interest of our department''s students in dairy processing food and serve as a foundation for future entry into the dairy processing industry.	2	B	Department of Food Science	SDG2,SDG4,SDG3
2023	1121	Bachelor	1	B3201837	A	General Physics (I)	In addition to establishing the basic concepts of physics and understanding their development, students can further flexibly apply related knowledge.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B8103B87	A	Marine Geochemistry	Let student understand the distribution and geochemical cycle of chemcial elements in the marine environment	3	B	Department of Marine Environmental Informatics	SDG14
2023	1112	Master	1	T4E01919	A	Ocean Currents	Let students feel how the dynamic ocean dances with it from the static properties of the basic physics of the ocean, thereby broadening their horizons Extensive exposure to the basic knowledge of ocean currents, but the content is mainly narrative, easy to understand, theoretical and computational The content is only briefly introduced. The contents studied include ocean current observation, ocean current experiments, ocean current data processing and analysis. Basic knowledge of advanced courses such as analysis and ocean current theory.	2	B	Department of Marine Environmental Informatics	SDG13,SDG14
2023	1112	Bachelor	3	B76032I0	A	Management of Ocean Festival Activities	This is a course on the planning and management of cultural festivities and activities. We begin by introducing management theories related to cultural festivities and their developments. We then proceed onto the practical issue of planning and management of cultural festivities. By combining experiences from within Taiwan and abroad, we incorporate the study of planning and managing cultural festivities within the broader subject of tourism studies.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG11,SDG12
2023	1112	Master	1	T4I01SCL	A	Seminar on Commercial Law	This class aims to provide a general introduction to the common legal issues encountered in daily business management settings via practical case studies in each session, hoping that learners can understand what legal planning and risk assessment an operator should consider in the decision-making phase.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	1	T4F0132R	A	Issue on practice of teacher professional development	1.students can make sense of critical concepts of teacher professional development. 2.students can inquiry the models and related issues of teacher professional development. 3.students can be engaged in evaluating teacher professional development to uncrease the effectiveness of teacher professional development.	2	B	Institute of Education	SDG4,SDG17
2023	1112	Bachelor	1	B6801497	A	Traffic Engineering	This course includes the necessary knowledge in planning, management and engineering of traffic. All students are expected to understand the related issues involved in traffic engineering, and can apply the knowledge to solve the problems.	3	B	Department of Transportation Science	SDG11
2023	1121	Bachelor	1	B3B0145P	A	Biology (I)	This course is designed for related departments with "biology as the major". Its purpose is to introduce the trends and discussions of modern biological research. This semester's course design will focus on cytology, molecular biology, genetics, and evolution. In addition to imparting basic knowledge from textbooks, the latest scientific knowledge will also be added to equip students with complete knowledge and an innovative scientific outlook.	3	A	Department of Bioscience and Biotechnology	SDG4,SDG14

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2023	1121	Bachelor	3	B3B0345V	A	Virology	There are three main purposes. 1. Let students know the fundamental knowledge of viruses. 2. Let students know the concepts of human viral diseases. 3. To investigate the infectious mechanisms of viruses.	2	B	Department of Bioscience and Biotechnology	SDG2,SDG3,SDG4,SDG11,SDG14,SDG15,SDG12,SDG6
2023	1112	Master	1	M74011ZN	B	Administrative Law - General Principles(II)	1. To establish students' understanding of modern administrative activities and their derivative legal phenomena, and guide the formation of their problem awareness, with a view to stimulating their interest in advanced learning in cross-field research from different angles. 2. Interactive discussions are also used to promote students' understanding, analysis and systematic mastery of basic issues.	2	A	Institute of the Law of the Sea	SDG1,SDG7,SDG9,SDG11,SDG16,SDG12,SDG10,SDG8,SDG6,SDG3,SDG4,SDG5
2023	1121	Bachelor	2	B7602J40	A	Statistics	112-1 Statistics will implement the teaching practice research plan of the Ministry of Education, and some new teaching materials, teaching methods and new teaching aids will be added, and the progress will be revised according to curriculum needs. Help students learn the basic principles and concepts of statistics, and provide examples to help students understand the application of statistics in social sciences and other fields. See Tronclass for details. Starting from the 2011 academic year, it has been changed to 16+2 weeks per semester in accordance with school regulations. If there are unfinished parts of the course, videos will be recorded, or everyone will watch the video and write down their thoughts. Taught in Chinese	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG3,SDG4,SDG8,SDG12
2023	1112	Bachelor	1	B6801S60	B	Linear Algebra	Linear algebra and matrix theory are basic knowledge for learning knowledge fields such as natural science and engineering. The purpose of this course is to enable students to have a preliminary understanding of the basic theory of linear algebra (vector/matrix), and have basic operation and calculation abilities, and then have the basic application ability to use computers to perform numerical operations.	3	A	Department of Transportation Science	SDG7,SDG9,SDG12
2023	1112	Doctorate	1	D7301AEO	A	Special Topics on Shipping Derivatives and Risk Management	This course systematically analyzes different measures and proposes alternative strategies for managing all aspects of financial risks in the shipping industry.	3	B	Department of Shipping and Transportation Management	SDG1,SDG4,SDG10
2023	1112	Bachelor	4	B73040ZB	A	Financial Management	1. Introduce the theory and practice of corporate financial management, including the relationship between risk and reward, time value of money, financing decisions, Capital structure, capital cost, capital budgeting, working capital management, dividend policy, corporate governance, fund allocation, risk management, etc. 2. This course is not a general course, nor is it a nutrition credit. It is about being a human being (according to the scoring standards). 3. If you have always been too lazy to go to class, don't like to study, don't hand in homework, and just want to pass with 60 points, I suggest you never take electives to avoid trouble.	3	B	Department of Shipping and Transportation Management	SDG1,SDG4,SDG10,SDG8
2023	1112	Bachelor	3	B53034QS	A	Unmanned Vehicle Systems: Theory and Practice	This course aims to introduce the composition and key technologies of recent unmanned vehicle systems. Unmanned vehicle systems include many subsystems and the integration of various technologies. This course will explore related technologies such as drones and autonomous driving and the development of their core technologies. This enables students to learn the basic knowledge of unmanned vehicle systems so as to facilitate further in-depth research on various components of the system in the future.	3	B	Department of Electrical Engineering	SDG4
2023	1112	Bachelor	4	B8104170	A	Special Topic in Analytical Chemistry	The aims of this course is to understand the chemical analytical principles and applications by using special topic practice teaching.	3	B	Department of Marine Environmental Informatics	SDG6,SDG14
2023	1112	Master	1	T4601T54	B	Constitutional Law	This course aims to investigate the constitutional function of protecting individual''s human rights and its role in a democratic political system from the perspectives of political philosophy and constitutionalism. The course will discuss values, theories and institutions of constitution law. Finally it will also research on correlation between constitutional institutions and protection of human rights.	2	A	Institute of the Law of the Sea	SDG1,SDG7,SDG9,SDG16,SDG13,SDG12,SDG11,SDG10,SDG8,SDG6,SDG2,SDG3,SDG5,SDG4
2023	1112	Bachelor	3	B73032VS	A	Global Containers Shipping Practice	Overview of Shipping industry' s recent development and tendency, providing operational experience as example ,letting students understanding the changes on the management level between Liner and tramp and how to cope with the current marketing challenges	2	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	2	B72020HH	A	Scientific writing	Help students to understand the research and writing process.	2	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	3	B720383E	A	Air Pollution Control Engineering	This course introduces the characteristics, mechanisms and control methods of various air pollutants, mainly emphasizing the engineering techniques to reduce air pollutant emissions. Including the characteristics of particulate pollutants, the engineering technology of various dust control equipment, hydrocarbon emissions control, and auxiliary equipment of hoods, ducts and fans.	3	B	Department of Mechanical and Mechatronic Engineering	SDG3,SDG11,SDG12,SDG9,SDG7
2023	1121	Bachelor	3	E42031RK	A	Food and Markets	Establish a correct concept of consumption, understand the relationship between the food industry and the general public, understand the impact of consumption habits on agriculture and food resources, and cultivate students' self-management of eating habits and food production and marketing.	2	B	Department of Food Science	SDG2,SDG11,SDG13,SDG16,SDG15,SDG14,SDG12,SDG10,SDG3,SDG4,SDG7,SDG5
2023	1121	Bachelor	1	B3B01NNU	A	Service-Learning Program-Campus Service	Cultivate school love and service-learning attitude through cleaning services in campus public areas	0	T	Department of Bioscience and Biotechnology	SDG1,SDG5,SDG11,SDG16,SDG12,SDG7,SDG4,SDG3
2023	1121	Bachelor	4	B3B04I3F	B	Seminar (Ⅱ)	Train students how to read professional journal articles related to life sciences	1	A	Department of Bioscience and Biotechnology	SDG4
2023	1112	Master	1	M3301264	A	Advanced Aquatic Biology	Teach about various aquatic organisms and how to study them.	3	B	Department of Aquaculture	SDG14
2023	1112	Master	1	M33010GB	B	Fish Immunology	The course adopts a comparative approach to introduce the fundamental principles in fish immune system. The unique features of fish immune system will be highlighted and applications in controlling infectious diseases in fish will be discussed.	3	B	Department of Aquaculture	SDG14
2023	1112	Master	2	T4F222JR	A	Seminar on Marine Subjects and Education	Students are expected to develop a broad understanding on various issues of marine education, learn to use the knowledge and ability of marine education in teaching practice, be able to generate an in-depth review on a selected topic and improve the capacity of thematic studies through discussion.	1	A	Institute of Education	SDG4,SDG12,SDG14,SDG13
2023	1121	Bachelor	3	B5103H15	A	Fundamentals of Partial Differential Equations	The course is conducted firstly to help students review and understand issues related to partial differential equations based on the original engineering knowledge. Secondly, it enables students to understand the application of partial differential equations to engineering problems. Three types of partial differential equations related to mechanics, electromechanics, etc. will be introduced and how to solve and analyze them using the separation of variables method. It is hoped that through this course, students will regain their interest in mathematics and learn how to apply mathematics to solve engineering-related problems.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG9,SDG7,SDG13,SDG14
2023	1121	Bachelor	4	B390440G	A	Food Fermentation Technology and Development of Functional Food	Introducing the development and prospect of food industry as well as teaching students to realize the identification, principle and application of novel or alternative food processing. To investigate of specific functional food products and its application of new functional food	3	B	Department of Food Science	SDG3,SDG4,SDG12
2023	1121	Bachelor	4	B3904N2J	A	Novel Food Processing	This course enables students to acquire food processing and preservation techniques and food processing principles.	3	B	Department of Food Science	SDG9,SDG11,SDG12

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2023	1121	Master	1	M9C010BW	A	Topics on Chinese Literature and Ocean	This course aims to explore the relationship between Chinese literature and the sea through the study and discussion of texts, to understand the face of the sea in Chinese literature, and to develop the study of various topics related to the sea in Chinese literature.	2	B	Institute of Oceanic Culture	SDG4,SDG5,SDG14,SDG10
2023	1121	Doctorate	3	D0813J25	A	Thesis	Guidance on dissertation writing	6	A	Bachelor Degree Program in Marine Biotechnology	SDG4
2023	1121	Master	1	M3201A43	A	Methodology of Food Science	This course enables students to learn the principles and operating methods of experiments related to food science research.	3	B	Department of Food Science	SDG3,SDG4
2023	1121	Master	1	M32014KZ	A	Global health food development and certification practice	As the COVID-19 epidemic spreads, consumers pay more attention to their own health, and the nutritional and health food industry has suddenly emerged as a growth opportunity. How to layout the domestic and foreign health care markets in the post-epidemic era will be opportunities and challenges for the industry. Health food, from the perspective of preventive medicine, can also increase nutrition and promote health, and has been favored by governments and individuals with rising health awareness. This course arranges to introduce the market environment, industry development and future prospects of the global health food industry. Then arrange domestic, Asia-Pacific, ASEAN and European and American countries to analyze the current regulatory management status and market trends of health and nutritional foods in each market. The content includes national health food management regulations, target market regulatory management systems, domestic and foreign market trends and promotion practices. Etc., learn how domestic health and nutrition food companies build domestic and overseas channels to expand markets.	2	B	Department of Food Science	SDG3
2023	1112	Master	1	M7201204	A	The Analysis of Precision Manufacturing Processes	This course aims to introduce the various components of precision machinery manufacturing, and introduce relevant mathematical theoretical methods to carry out various analysis work, so as to achieve integrated planning and analysis of precision manufacturing processes by combining theory and practice. The main teaching objectives of this course are: 1. To enable students to understand the error modeling methods and calibration techniques of processing machine tools. 2. To enable students to understand the theoretical analysis methods of cutting processing procedures. 3. To enable students to understand the detection technology and analysis methods of processing accuracy. 4. To equip students with the basic ability to combine theory and practice to conduct integrated planning and analysis of precision manufacturing processes.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG9
2023	1112	Doctorate	1	D89013BP	A	Design and practice of smart devices	To familiarize students with the design principles and practical preparation of various intelligent components as well as the operation and analysis applications of measurement technology.	3	B	Department of Optoelectronics and Materials Technology	SDG7,SDG9
2023	1112	Bachelor	4	B6D040I6	A	Marine Engineering Maintenance & Overhaul	Let students learn the basic ability and professional knowledge of engine repair and maintenance, so that they can quickly enter the situation when serving on board in the future and have basic engine maintenance knowledge and ability to perform routine maintenance work on board. This course complies with the mandatory knowledge, understanding and proficiency required in Table A-III/1 of the STCW Convention on Marine Engineering Operational Level Competence.	3	B	Department of Marine Engineering	SDG4,SDG6,SDG8,SDG14,SDG13
2023	1112	Master	1	M7201R10	A	Principle of Precision Machining	Students can learn the knowledge of precision machining and manufacturing as well as their basic principles and applications. Through the final project, students can develop a self-learning attitude and develop the ability to solve and analyze engineering problems.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	1	B570132V	B	Introduction to Programming(Ⅱ) Lab.	Students learn about C++ support for object-oriented programming, from C to C++, and are guided through basic object-oriented programming.	1	B	Department of Computer Science and Engineering	SDG4
2023	1112	Bachelor	1	B5701M3J	B	Introduction to Programming(Ⅱ)	Students learn about C++ support for object-oriented programming, from C to C++, and are guided through basic object-oriented programming.	3	A	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	3	E4203168	A	Molecular Biology	1. To establish an intuitive and historical perspectives on molecular biology for students 2. To vertically connect the relationships of structure and function of biomolecules such as DNA, RNA and proteins etc. 3. To horizontally connect the biotechnological applications based on the developments of contemporary molecular biology 4. To introduce the latest trends of biotech researches and developments such as gene editing or next generation sequencing (NGS)	2	B	Department of Food Science	SDG4
2023	1121	Doctorate	1	D86014X4	A	Fossil Stratigraphic Practicum	Practice in stratigraphic, fossil, intertidal, and marine geology in the context of relevant disciplines. At the same time, it will extend to museum education, including collection and display. The course will mainly be based on the geology, paleontology, and marine environment of the Hengchun Peninsula, with the National Museum of Marine Biology and Aquarium (NMMBA) and its surrounding facilities as the training base.	2	B	Institute of Earth Sciences	SDG13,SDG14
2023	1121	Bachelor	1	B9D01968	4	English	The course is designed to teach students to analyze, critically evaluate, and intelligently respond to texts. Featuring articles from popular media outlets, each unit centers on a high-interest topic and guides learners through engaging discussions and activities. After completion of the course students are expected to develop well-reasoned, supported opinions on a wide range of high-interest topics as they learn critical thinking and reading skills to better understand and evaluate what they read.	2	A	Institute of Applied English	SDG1,SDG14,SDG10,SDG5,SDG4,SDG3
2023	1112	Bachelor	2	B7602C0A	A	Customers Relationship Management	The purpose of this cause is to understand how the businesses interact with their customers. The effectiveness of customer interaction can make the customer satisfied and loyal, and established life cycle relationship with the business. The components of customer relationship management (CRM) include objective, service process, tools, and, service encounter. The planning and design of these components will be discussed in our course.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG8,SDG12,SDG17
2023	1112	Bachelor	3	B38034IR	A	Research Training (II)	The purpose of the special research is to allow students to understand the research topics of each professor's laboratory, learn the experimental techniques and research methods that each professor specializes in, and observe and learn how the seniors in the laboratory conduct research, so as to cultivate the research ability of experimental operations as a The basis for entry into research field work.	1	B	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG9
2023	1112	Doctorate	1	D09014IN	A	Marine Environmental Management	This course provides comprehensive knowledge and important concepts on marine environmental management. By using the integrative theory and case study (national and international), inspires students to think, analyze and discuss the related issues as well as present their ideas. This training aims to enhance the students' ability to participate in the national marine affairs and international cooperation in the future.	3	B	Doctoral Degree Program in Ocean Resource and Environmental Changes	SDG13,SDG14
2023	1121	Bachelor	2	E4202M83	A	Microbiology	The topic of this course is to introduce the knowledge of Microbiology for the students study in the field of Food Science and related disciplines.	3	A	Department of Food Science	SDG3,SDG4
2023	1121	Bachelor	1	E4211L60	A	General Chemistry	General chemistry is a basic course in life sciences. This course is intended to introduce and discuss the basic principles of general chemistry and its experimental methods from a wide range of angles in the first year of college, in order to lay the foundation of chemistry for undergraduate students and inspire them to have an understanding of life, scientific interest.	2	A	Department of Food Science	SDG1,SDG3,SDG9

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2023	1121	Bachelor	3	E4202A38	A	Frozen Foods Technology	This course provides a series of introductions to the principles and processing techniques of freezing, with the aim of laying the foundation for students in food preservation. Teach students the principles of low-temperature preservation of food, introduce various food freezing and processing methods, and explore quality changes during freezing processing, so that students can understand the current operation of the food freezing industry, and then have the knowledge of production, quality control, and research and development of low-temperature products. ability.	2	B	Department of Food Science	SDG2,SDG17,SDG14,SDG3,SDG6,SDG12,SDG11
2023	1121	Bachelor	1	E42011BU	A	Beverage Preparation and Management	It enables students to understand the characteristics and management of various beverage raw materials, strengthens students' skills in applying different raw materials to beverage products, instills students with the correct ability to drink beverages, enables practitioners to have a professional attitude and professional quality attitude, and strengthens the ability to think reverselv.	2	A	Department of Food Science	SDG3
2023	1121	Bachelor	1	E4201M97	A	Calculus	This period enables students to fully master the mathematical tool calculus and learn the ability to analyze and solve problems.	3	B	Department of Food Science	SDG4
2023	1121	Bachelor	3	E42030PQ	A	Food Allergy	1.To provide students easily apply the knowledge learned from the class to further self-reading, research, and other purpose. 2.To realize the basic characteristics on human immune response 3.To understand food allergy mechanism 4.To train graduate student how to prepare and present a good oral talk on food allergy topics.	2	B	Department of Food Science	SDG3,SDG4
2023	1112	Master	1	M33011HR	B	Molecular Breeding in Aquatic Species	For the understanding that how does the avenue of molecular marker-assisted selection (MAS) can be used and applied to fisheries management, genetic improvement and aquaculture industry. The literature review every week will help students to justify their special research question in selected articles to carry on the discussion.	3	B	Department of Aquaculture	SDG2,SDG3,SDG12,SDG14,SDG4
2023	1112	Bachelor	1	B6F01070	B	Engineering Materials	The aims of this course are to learn the bonding and crystal structures of materials, to understand phase transformation of metals during melting/solidification, then to familiarize with metallic iron-carbon phase diagrams and mechanical properties of a variety of alloys. On the other hand, learners will catch the knowledge of processing of engineering ceramics and the structural characteristics in various applications. Therefore, students will fully understand the importance of material structures in engineering.	3	A	Department of Marine Engineering	SDG3,SDG7,SDG11,SDG17,SDG15,SDG14,SDG13,SDG12,SDG8,SDG9,SDG6
2023	1112	Bachelor	2	B95023XS	A	Instructional Internship for Science and Technology	1. Understand the current teaching activities and class management practices in the field of natural sciences. 2. Observe the teaching of related subjects on probation and analyze the procedures and steps of teaching activities. 3. Flexibly use teaching methods and strategies to design teaching plans and lesson plans. 4. Verify teaching principles or theories through simulated teaching experience. 5. Through self-reflection and joint discussion, try to establish your own teaching model.	2	H	Teacher Education Center	SDG4
2023	1112	Master	1	M74014QG	A	Seminar on Maritime Administration Regulations	Understand the theoretical and legal basis of my country’ s aviation regulations	2	B	Institute of the Law of the Sea	SDG4,SDG17,SDG11,SDG14
2023	1121	Bachelor	3	B3B03667	A	Immunology	To learn the basic concepts of immunology, how the immune system works, and immune-related diseases	3	B	Department of Bioscience and Biotechnology	SDG4
2023	1121	Bachelor	4	B3B04I3I	A	Special Topic Research (I)	1. Complete the experimental design 2.Experimental technical analysis training 3. On-site experimental investigation 4. Paper writing 5. Publication of research results	1	B	Department of Bioscience and Biotechnology	SDG4,SDG11
2023	1121	Bachelor	3	B3B0345I	A	Physiology	Understand how various organ systems in animals (including humans) work to perform their functions	3	B	Department of Bioscience and Biotechnology	SDG4
2023	1121	Master	1	M3211I4A	C	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG3,SDG10,SDG16,SDG17,SDG12,SDG9,SDG4
2023	1121	Master	2	M3212I4A	C	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG8,SDG9
2023	1121	Bachelor	3	B3203815	A	Lipid Processing	Upon completion of this course, students will have advanced knowledge on the processing of edible oils.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	4	B6C044BZ	A	Directed Research	Integrate what you have learned through special research, independent learning and cooperation, and cultivate the abilities of innovation, analysis, design and practice.	1	A	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B76023C6	A	Tourism Market Research and Analysis	Course Objectives: 1.To give students an overview of fundamental knowledge of tourism marketing and related practical issues. 2.To help students understand the concept of marketing research and its significance and methods commonly used. 3.To provide students skills essential to analyze and solve the problems of tourism marketing via using the methods of marketing research.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG1,SDG12,SDG17,SDG11,SDG4,SDG9
2023	1112	Bachelor	3	B68030VN	A	Engineering Economics and Investment Analysis	This is an undergraduate course on Engineering Economics and Investment Analysis. The purpose of this course is to provide a sound, intuitive understanding of basic investment concepts for the students who pursue careers in business and the social sciences. The course is designed for one semester. Topics covered include the basic concepts and techniques on financial statements.	3	B	Department of Transportation Science	SDG11,SDG12
2023	1112	Bachelor	1	B9500Y76	A	Principle and Practice of Guidance	This course will introduce the theory and practice of counseling, supplemented by problem-based learning, and guide learners to explore and develop counseling. Students are expected to be able to understand the psychology of adolescent/children, make good use of help skills to promote students'' development.	2	H	Teacher Education Center	SDG3,SDG4,SDG5
2023	1112	Bachelor	2	B5302HDR	A	Hardware Description Languages and Logic Synthesis	1. Teach students to learn FPGA design and the use of CAD tool software. 2. Teach students the principles and applications of digital systems and implement the designed circuits on FPGA.	3	B	Department of Electrical Engineering	SDG4
2023	1112	Master	1	T4F022VW	A	Special Topic on Ocean Literacy and Teaching	1. Understand what ocean literacy is 2. Understand the definitions of marine literacy in different countries 3. Understand the development of marine literacy in different countries 4. Compare the differences in the development of marine literacy in different countries 5. Understand marine literacy teaching at different educational stages	2	B	Institute of Education	SDG13,SDG15,SDG14

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2023	1112	Master	1	T4Y014QI	A	Advanced Transportation Performance Evaluation	Network data envelopment analysis helps industries, government agencies, and non-profit organizations measure operational efficiency and productivity, thereby proposing ways to improve efficiency. The purpose of this course is to introduce how to measure efficiency and productivity under the network transportation production structure, and how to set improvement goals. In addition to theoretical discussion and model construction, it is also supplemented by actual transportation case illustrations and implemented in special research.	2	B	Department of Transportation Science	SDG9
2023	1112	Bachelor	3	B6803E7C	B	Air Transportation	Systematically introduces the main content and basic concepts of air transportation, allowing students to understand the control, legal restrictions, civil aviation policies and aviation industry development of the civil aviation industry, and then explore various air transportation issues in Taiwan.	3	B	Department of Transportation Science	SDG9,SDG11,SDG17
2023	1112	Bachelor	2	B52022D7	A	Oceanographic Observation	Finding and mastering marine and meteorological data is necessary for coastal marine engineering research or practical coastal and marine engineering planning and design, such as planning, design and development of harbor engineering, marine civil engineering, coastal protection, marine energy and deep ocean water industry, etc. First of all, it is necessary to effectively grasp the operating conditions of sea areas such as wind, waves, tides, currents and near-shore currents. The teaching objectives of this course mainly introduce the characteristics of the marine environment, such as the observation and planning of wind, wave, tide, tidal current and near-shore current, the processing and analysis of observation data, and how the observation results are applied to practical planning and design work. To enable students to understand marine meteorology, understand its observation principles, methods and applications, and have basic observation and planning skills.	3	B	Department of Harbor and River Engineering	SDG4
2023	1112	Bachelor	3	B57032PA	A	Technologies and applications of IoT	Introduce the key technologies and applications of IoT	3	B	Department of Computer Science and Engineering	SDG4,SDG8,SDG9
2023	1121	Bachelor	2	E420347D	A	Introduction to Biotechnology	1. To build up the fundamentals of operational definition about microorganisms and biomolecules (technical subjects) for students 2. To vertically connect the relationship between biomolecules in microcosm world and biosphere in the earth 3. To horizontally connect the applications and influences of manipulating microorganisms and biomolecules on the fields of food, medicine, epidemic prevention, environmental protection and biotech industry 4. To introduce the latest trends of biotech researches and developments such as gene editing or next generation sequencing (NGS).	2	B	Department of Food Science	SDG4
2023	1112	Master	1	M7401I18	B	Seminar on International Law	This course hopes to teach the theory, practice and application of various topics in international public law through teacher lectures, current affairs introductions, case discussions and special reports. The course will introduce the legal sources and main bodies of international law and some branches of international law. We hope that students can learn through the lectures and discussions and expand the depth and breadth of their understanding of international law.	2	A	Institute of the Law of the Sea	SDG3,SDG17,SDG5,SDG10,SDG16,SDG13
2023	1121	Bachelor	3	B7313B84	B	Marine Insurance	The objective of this course is to help students grasp solid concept of marine insurance regulations. This class will also focus on various case studies as well as intra-class discussions on Maritime Act.	2	A	Department of Shipping and Transportation Management	SDG14,SDG17
2023	1121	Bachelor	2	B7302741	A	Liner Shipping Management	Understand the regular shipping practice and its industrial application, and supplement it with the five managements of the enterprise to maximize its efficiency and profits.	3	A	Department of Shipping and Transportation Management	SDG9
2023	1121	Bachelor	3	B7603ZJV	A	Administration and Regulation of Tourism	This course will introduce related policies and laws in tourism and the logic of policy-making and implementation in order to see how tourism policies facilitate tourism industry and its developmental trend. The main objectives of this course are as follows. 1. Students will understand the basic logic and concepts in tourism administration, policies, and laws. 2. Students will get current situation and developmental trend of tourism policies and laws. 3. This course will equip students with the capacity of tourism administration and management and legal literacy.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG8,SDG12,SDG11
2023	1121	Bachelor	3	B7603NP8	A	E-Commerce	Explain the development status and trends of e-commerce, in addition to illustrating the world"s important e-commerce companies through case teaching, and supplement the application of big data analysis and artificial intelligence in future e-commerce. In addition, this course will be carried out in physical and online teaching to assist outdoor visits, allowing students to experience the meaning of the tourism industry in implementing O2O (collecting tourism information online, booking tickets online, and sharing tourism resources in person).	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG1,SDG7,SDG10,SDG17,SDG12,SDG9,SDG4
2023	1121	Bachelor	1	B7601N8U	A	Transportation	1.To encourage students to understand the characteristics of transport, and various modes of transport. 2.To stimulate students in learning how to explore transport management strategy, in order to achieve the combination of theory and practice.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG11
2023	1121	Bachelor	3	E4203463	A	Biostatistics	The broad objective of the course is to promote an understanding of an objective and disciplined approach in the study and analysis of problems especially those involving numerical data in experimental studies.	3	A	Department of Food Science	SDG4
2023	1121	Bachelor	2	E4202A31	A	Food Products Technology (1)	The purpose of this course is to introduce various types of food processing methods and explain the chemical and physical changes of raw materials during processing.	2	A	Department of Food Science	SDG2
2023	1121	Bachelor	4	E42041RL	A	Industrial Fermentation and Food	To understand the structure of Fermentation industry, to familiarize the principles of industrial microbiology and to train the students with the ability of making products from modern fermentation technology.	2	B	Department of Food Science	SDG3,SDG4,SDG6,SDG8,SDG12,SDG14,SDG16,SDG15,SDG13,SDG9,SDG7,SDG5
2023	1121	Master	1	M32011NL	A	Advanced Frozen Food Technology	In the form of group discussion, several novel frozen food processing technologies will be used to discuss the principles of cryogenic food preservation, various food freezing and thawing methods, and the quality changes during freezing or thawing. Students are expected to understand the current status of new food freezing research and the application of food freezing technology.	3	B	Department of Food Science	SDG2,SDG12,SDG9
2023	1121	Master	1	M51014LM	A	Special Topics on Autonomous Robot	The students can learn the concept, architecture, related basic knowledge of robot operating system, and the packages. They can also know the diverse applications of ROS.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG8,SDG9,SDG17
2023	1112	Bachelor	2	B3102R58	A	Remote Sensing	To learn the fundamentals for remote sensing, radiative transfer theory and its application on commercial fishery and oceanography.	2	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1112	Bachelor	1	B3121M97	A	Calculus	It is hoped that students can learn how to use mathematical language to think and build their ability to analyze and solve problems from the complete basic mathematical knowledge of calculus. --Based on the concept of limit, learn the concepts of characterization of functions, calculation of derivative functions and definite integrals; --Learn how to apply function characterization to solve application problems -- Understand how to apply integral theory to solve summation problems, calculation of common geometric quantities and other related problems -- And be able to learn the attitude of careful thinking and verification that is necessary in mathematical science.	3	A	Department of Environmental Biology and Fisheries Science	SDG4

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2023	1112	Bachelor	2	B56021AV	A	Exploitation of ocean renewable energy	Focus on developments of ocean energy industry. Train students how to search new oceanic techniques by internet and Let them learn how to present by media tools.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG3,SDG17,SDG16,SDG4,SDG7,SDG13
2023	1112	Bachelor	1	B9502YAR	A	Performing Art	Cultivate students' knowledge and understanding of performing arts	2	H	Teacher Education Center	SDG4
2023	1112	Master	2	M9A02CAK	A	Special Topic on Marine Recreational Education	1. Understanding and discussion of marine leisure culture 2. Cultivate students' ability to plan marine leisure activities and their execution ability	2	B	Institute of Education	SDG4
2023	1112	Master	1	M7401D12	B	Seminar on Maritime Law	1. Students should be able to understand and understand the relationship between my country's maritime law and relevant international conventions, practices or foreign laws, as well as the development trends of international maritime law. 2. Students should be able to correctly state the relevant provisions, basic theory and practice or doctrinal disputes of my country's current maritime law. 3. When students encounter relevant factual statements, they should be able to confirm the legal disputes caused by the facts, state the relevant regulations and principles, and explain why the regulations and principles can be applied to the facts, so as to resolve the legal disputes	2	A	Institute of the Law of the Sea	SDG4
2023	1112	Master	1	M53014QT	A	Fundamentals of Semiconductor Industry	This course mainly helps students become familiar with the development and overview of the semiconductor industry. The course introduces the semiconductor industry into upper, middle, lower and downstream, teaches the overall concept of the semiconductor industry, and enables students to understand the current semiconductor market development and international semiconductor industry trends. This course allows students to gain exposure to Taiwan's semiconductor industry chain, which will help them enter careers in the related integrated circuit and optoelectronic semiconductor industries in the future.	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1112	Master	1	T4J01Q94	A	Management Information System	Provide students with a fixed foundation of information systems so that they can build a successful career no matter which industry they enter, enable them to formulate strategic plans in executive positions, optimize operation management in enterprises or factories, and provide their own enterprises with Opportunities coordinate planning, design information systems to optimize their organization's needs, serve as consultants in a variety of industries, or create valuable new information products	3	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	3	E4G03N78	A	Transportation Economics	This course mainly provides students with the basic knowledge of transportation economics that students must have, and cultivates students' interest in analyzing transportation economic issues.	2	B	Department of Shipping and Transportation Management	SDG3,SDG8,SDG9,SDG12,SDG11
2023	1112	Bachelor	3	B39044KU	A	Applied Food Hypersensitivity	1.To provide students easily apply the knowledge learned from the class to further self-reading, research, and other purpose. 2.To realize the basic characteristics on human immune response 3.To understand food allergy mechanism 4.To train graduate student how to prepare and present a good oral talk on food allergy topics.	2	B	Department of Food Science	SDG3,SDG4
2023	1112	Master	1	M3201A63	A	Heat Transfer in Food Processing	The purpose of this course is to discuss the basic principles of heat transfer phenomena and the main applications of heat transfer principles to food processing processes.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B8903I3J	H	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Doctorate	1	D66013MU	A	Special Topics in Saving and Management of Power Energy	Educate students to understand the basic principles of various energy management projects and their applications in practical projects. The course content mainly includes relevant energy management technologies such as power supply side planning and load demand side management, to train students in various applications of energy management projects. concepts and abilities, and can also enhance the depth and breadth of students' independent thinking.	3	B	Department of Marine Engineering	SDG7,SDG11,SDG13
2023	1121	Master	1	M32014SV	A	Intelligent innovation and development of food and biotechnology industry	It enables students to understand the application of novel digital technologies such as artificial intelligence, Internet of Things, big data and blockchain in the food biotechnology industry. It is expected that students can apply these intelligent technologies in the food biotechnology industry in the future.	2	B	Department of Food Science	SDG4,SDG12,SDG9,SDG11
2023	1112	Bachelor	4	B6804I3E	A	Advanced Thesis Writing	This course mainly teaches students to learn through topic selection and research methods, Through group interactive discussions and practical report exercises, students are trained to collect professional knowledge. , topic discovery and research analysis abilities, and finally, the implementation of students' topic implementation abilities.	3	B	Department of Transportation Science	SDG4
2023	1121	Doctorate	1	D32014LC	A	Nutrikinetics	Upon completion of this course, students will be familiar with nutrikinetic issues, and possess the basic knowledge of oral bioavailability and dosage effect, which are required for entry into the dietary supplements industry.	3	B	Department of Food Science	SDG3,SDG4
2023	1121	Master	1	M73012VK	A	Shipping Finance	This course discusses the essential theories and the best practice of financial management in shipping and logistics finance.	3	B	Department of Shipping and Transportation Management	SDG1,SDG10,SDG12,SDG16,SDG11,SDG9,SDG4,SDG5,SDG8,SDG2
2023	1112	Doctorate	1	D8901948	A	Phase Transtormation and Solid-State Reaction	(1) Explore the principles of phase changes of materials in the solid state (2) Learn the impact of phase changes on material properties and applications (3) Understand the differences in phase changes that occur when materials change due to environmental changes	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG16
2023	1112	Doctorate	1	D8901G61	A	Laboratory Study and Characterization on High Temperature Corrosion and Prevention	(1) Learn the relevant mechanisms of material corrosion (2) Characteristic evaluation of the corrosion resistance effect of surface modification on materials (3) Explore the high-temperature corrosion of materials in different atmospheres	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG9
2023	1112	Master	1	M33013S4	A	Biological Image Analysis with AI	With the declining cost in digital image acquisition, labor force and human bias is the new bottleneck in image processing nowadays. This course is the application level of the three-stage AI courses, aiming to apply AI image analysis to aquaculture challenges, and to elevate students from the level of "knowing" to the level of "au fait". This course will teach students with life science background who would like to comprehend the principles of image processing algorithms. In addition, machine learning algorithms will be used to track and analyze the image of aquatic animals. This course is designed for biologists to focus on more details of biological image processing, automation plugins/marco coding with ImageJ and cloud AI sever.	3	B	Department of Aquaculture	SDG9
2023	1112	Master	1	M6601W31	A	Quality Engineering Using Robust Design	-To give the students the basic concepts of Taguchi quality engineering,including quality loss function, parameter design, tolerance design,orthogonal arrays, signal-to-noise ratios, and so forth. Some case studies will be presented and discussed.	3	B	Department of Marine Engineering	SDG4
2023	1112	Bachelor	3	B3103760	A	Demersal Fisheries	Understand important bottom fisheries, the response of fish stocks to fishing gear and fishing methods and the fishing mechanism, the impact on the environment and organisms, and future development and challenges.	2	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Master	1	M67014PU	A	Mathematics for Machine Learning	To deliver the important topics on mathematis for machine learning	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG17
2023	1112	Master	1	M3B01SWD	A	Cell signaling and human disease	To teach the roles of signaling transduction in modulating cell functions and correlate to human disease	3	B	Department of Bioscience and Biotechnology	SDG3,SDG4
2023	1121	Master	2	M7302F13	A	Seminars on Shipping Management	This course is based on teachers' many years of practical experience in the maritime industry, coupled with a certain theoretical foundation, so that students can not only understand the theoretical aspects, but also be able to connect with the practical aspects.	3	B	Department of Shipping and Transportation Management	SDG17
2023	1121	Doctorate	1	D810115E	A	Atmospheric Aerosol	Understand the characteristics of suspended particles	3	B	Department of Marine Environmental Informatics	SDG3,SDG14,SDG13
2023	1112	Bachelor	2	B6C023R7	A	Engineering Mathematics	Provide students with the mathematical knowledge and skills and support their concurrent and subsequent engineering studies.	3	A	Department of Communications Navigation and Control Engineering	SDG4,SDG12
2023	1112	Bachelor	3	B6C032C7	A	Introduction to Algorithms	• To understand algorithms • To be able to design and analyze algorithms	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	4	E42044DS	A	Advanced Health Food	Instructor: holds nutritionist professional certificate 1. Teach you how to design a balanced and nutritious menu for yourself, know how to calculate food calories, make good use of food replacement tables, and be your own nutritionist. 2. Hand-made courses such as making maltose, fruit wine, etc. 3. In addition to their daily diet, ordinary people may buy related foods for maintenance or nutritional supplements. These products are often mistakenly labeled as "healthy foods". Through this course, we will guide you to take courses. Students understand the "healthy food" with the little green man label certified by the government, and analyze the chemical composition analysis and substantive scientific evidence of the "health benefits" of the product, so as to identify commercial advertisements and become a smart consumer.	2	B	Department of Food Science	SDG2,SDG6,SDG3
2023	1121	Bachelor	2	E4Q02PGD	A	Proficiency in Survival Craft and Rescue Boat	Learning to know ship life saving' s equipment, lifeboat/raft equipment and operation' s knowledge and skills, simultaneously to know rescue boat operation' s knowledge and skills.	2	A	Department of Marine Engineering	SDG6,SDG9
2023	1121	Master	2	T4Q021RH	A	Noise Measurement and Control	This course introduces the basics of noise and then introduces the operation of noise measurement methods. The course allows students to understand the principles, methods and practices of noise control and how they are applied in the industry. Finally, through case studies related to noise improvement, different thinking logics and improvement practical experiences are provided. To familiarize students with noise control principles and techniques for research and practical application.	3	B	Department of Marine Engineering	SDG3,SDG8,SDG11,SDG12
2023	1112	Master	1	M7201A5N	A	Measurements in Heat Transfer and Fluid Mechanics	The experimental measurements ability and the mechanical engineering solid service has the inseparable relations. Not only really serves the project to need various models measurements to perform the quota, the achievement holds controls the use. The research unit needs precise measurements to perform to confirm theory of or the computation pattern the development.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M7201LB3	A	The Physical Properties and Phase Transformation of Welding and Joining	The goal is to learn the physical principles of welding, the changes in mechanical strength caused by the welding process and the transformation of microstructure caused by thermal cycles. 1. Students must understand the basic principles of various welding methods 2. The correlation between molten pool heat conduction and liquid flow field, weld bead penetration depth and residual stress 3. The relationship between the changes in the heterogeneous crystal structure of the weld bead in the molten zone and the solidification theory 4. The causes of weld bead cracks are affected by metallurgical factors, stress factors, phase transformation factors 5. The relationship between phase transformation in the heat-affected zone of different alloys, mechanical properties and cracks	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9,SDG8
2023	1112	Master	1	M67012DU	A	High performance satellite-based navigation systems	Introducing the theory and design of improving the performance of satellite navigation systems	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG17
2023	1112	Master	1	M680184E	A	Airline Operation and Management	Introduces the professional knowledge on the academic aspects of the Sixth Civil Aviation Industry and the practical operations and management of the industry, and combines it with topics related to the development of the air transport market, such as air transport service agreements and open skies, airline costs and sustainable growth operations, and airline strategic alliances and low-cost airline operating models and other market trends. Through classroom explanations and discussions on relevant papers and current affairs, students will be equipped with basic air transport operation and management concepts.	3	B	Department of Transportation Science	SDG11,SDG17
2023	1112	Bachelor	2	B56024R4	A	Innovative technoloty in engineering	Due to the rapid development of science and technology in recent years, a variety of newly developed tools and technologies have been adopted in the fields of civil, water conservancy and ocean engineering, such as disaster prevention technology and low-impact development, computational fluid dynamics and computer simulation, wind tunnel experiments and wind engineering , hydraulic model experiments and applications, telemetry technology and applications, computer simulation analysis of ocean and maritime engineering, computational mechanics, etc. These newly developed technologies have provided many important novel applications and developments in the engineering field, and will have the opportunity to become leading players in the engineering field in the future. Key technologies. Therefore, the main goal of this course is to introduce to undergraduate students the basic principles of these new technologies, the latest engineering application cases, and possible future application directions, so that students can have the ability to understand and use these new technologies and apply them correctly. Various types of engineering fields	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG7,SDG13,SDG11,SDG9
2023	1121	Bachelor	1	B6F01NNX	A	Service-Learning Program-Campus Service(I)	Cultivate students' sense of responsibility for work	0	T	Department of Marine Engineering	SDG3,SDG4,SDG11,SDG16
2023	1121	Bachelor	1	B6F01NNX	B	Service-Learning Program-Campus Service(I)	1. To Cultivate Students'' Sense of Identity and Solidarity with the Campus. 2. Let Students Learn Self-Development, Self-Awareness and Social Concern from Service. 3. Empower Students to Change the world with Optimism and Empathy.	0	T	Department of Marine Engineering	SDG1,SDG16,SDG11,SDG10,SDG3,SDG5,SDG6,SDG8,SDG7,SDG4
2023	1112	Bachelor	1	B6F012ZP	B	Programming and Data Processing	This course is an introduction to the Python programming language for students without prior programming experience. The course cover the data types, control flow, object-oriented programming, and graphical user interface-driven applications. The examples and problems used in this course are drawn from diverse areas such as text processing, simple graphics creation and image manipulation.	2	A	Department of Marine Engineering	SDG4,SDG9

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2023	1112	Bachelor	2	B5602C18	A	Ocean Engineering	Introduce the environment and stress of marine structures and how they affect the design, construction, maintenance and operation of various marine structures. Students who complete this course should have the following abilities: 1. Use your own vocabulary and understanding to explain the connotation and basic methodology of ocean engineering. 2. Be able to explain the basic connotations of various professional marine engineering. 3. Have a basic understanding of the social responsibilities and codes that engineers should have.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG9
2023	1112	Bachelor	3	B57030UG	B	Computer Projects (I)	Introduce the algorithm of machine learning. The student will learn theorems of machine learning through applying them on some practical applications.	3	B	Department of Computer Science and Engineering	SDG4,SDG8
2023	1112	Bachelor	3	B8903I3J	E	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Bachelor	2	B5702P36	A	Computer Network	This is a fundamental course for Computer Network-related courses. With this course, you will learn Basic computer network concept and principle	3	A	Department of Computer Science and Engineering	SDG4,SDG8,SDG9
2023	1121	Bachelor	3	B73030ZQ	A	Theory and Practice of the Third Party Logistics	This module draws upon the latest techniques, systems and thinking in third party logistics. The module develops, applies and consolidates learning through solving problems relating to the real world of third party logistics.	3	B	Department of Shipping and Transportation Management	SDG8
2023	1112	Bachelor	1	B6F0102A	A	Personal Survival Techniques	This course is based on the "International Convention on Standards of Training, Certification and Watchkeeping of Seafarers, 1997" as amended in 1995 regarding "Personal Survival Skills", "Proficiency in Crafts except Rapid Rescue Crafts and Rescue Boats" " and the course outline of "Proficiency in Fast Rescue Boats" and the International Maritime Organization Model Course I.19 Personal Survival (Model Course1.19 Personal Survival), Model Course1.23 Proficiency in Survival Craft (Model Course1.23 Proficiency in Survival Craft) and Typical course I. Proficient operation of 24 personal survival skills.	1	B	Department of Marine Engineering	SDG1,SDG4
2023	1121	Bachelor	1	B7311437	A	Introduction to Civil Law	The objective of this introductory course is to help first-time learners grasp general concept of the civil code regulations in Taiwan. This class will also focus on various civil code case studies as well as intra-class discussions on related hypo exercise.	2	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Doctorate	1	D8901W51	A	Thin Film Technology	This course introduces the principles of vacuum and thin film technology, emphasizes thin film production technology, and strengthens related thin film detection and analysis technologies. The course content includes vacuum technology, vacuum equipment and devices, discharge effects, plasma principles, ion and surface interaction, and various vacuum coating technologies such as evaporation, sputtering, chemical vapor plating technology, etc. In addition, the structure and structure of thin films Detection technology will also be given a complete description. I hope to use the professors in this course to establish students' basic concepts and techniques of vacuum and coating, and understand practical applications through paper reading.	3	B	Department of Optoelectronics and Materials Technology	SDG9
2023	1112	Master	1	T4I010V6	A	Law of Shipping Contract and Maritime Law	1. Understand the basic content and application methods of contract law 2. Understand the legal and practical applications of various types of international business and logistics contracts 3. Cultivate the ability to analyze and solve issues related to maritime law	3	A	Department of Shipping and Transportation Management	SDG14,SDG17
2023	1112	Bachelor	1	E4Q02N2Q	B	Advanced Fire Fighting Aboard	The content of this course is organized in accordance with the provisions of IMO Model Course 2.03 and 1978 STCW Code Chapter 6 Section A-VI/3. It is intended to enable students to learn the fire prevention, preparedness, response and emergency response required by crew members above the "operational level". Professional knowledge and skills related to safety and other aspects.	2	A	Department of Marine Engineering	SDG4
2023	1112	Bachelor	3	B5703M36	B	Programming Languages	Teach basic concepts of programming languages	3	B	Department of Computer Science and Engineering	SDG4
2023	1112	Master	1	M3401C34	A	Marine Ecology	This course is jointly taught by all teachers in the school, and introduces the marine environment and branches of marine ecology, the food chain of the ocean, estuaries, coasts, coral reefs, the cycle of nutrients in the ecosystem - carbon, hydrogen and nitrogen, the southern marine ecosystem, and the benthic ecosystem. , Bacteria and the seabed sediment environment, Human beings and the marine environment - pollution, atmospheric changes and biological diversity.	2	A	Institute of Marine Biology	SDG4,SDG11,SDG14
2023	1112	Master	1	M3421C15	A	Marine Biological Research Methods	This course is in conjunction with the demonstration and practical courses offered by our institute in "Special Courses in Marine Biology" and "Marine Ecology" and is taught by all teachers in our institute. The purpose is to enable students to have a preliminary understanding of commonly used marine biological research techniques and gain first-hand operational experience. The main contents include: identification and counting methods of various marine organisms, analysis and determination of physical and chemical factors in the environment, observation methods of animal behavior, computer simulation of ecology, and introduction to electron microscopy, etc.	1	A	Institute of Marine Biology	SDG4,SDG14,SDG11
2023	1112	Master	1	M51014OA	A	Shipping Operations Strategy and Management(Ⅱ)	1. The main teaching objective in the teaching objective (Objective) is to provide professional and practical teaching for students in the Department of Shipbuilding, to gain insight into the current status of related industries and the future development trends of the shipping industry, so that students can expand their application in engineering and management through the study of shipboard professional practice. Integrate and promote students' advance planning for future career planning, cultivate their knowledge and adaptability required for employment, and achieve the goal of integrating industry and academia and cultivating maritime professionals.	2	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG17,SDG10,SDG14
2023	1112	Bachelor	1	B6F01U24	B	Statics	Introduce the basic laws of statics (resultant force balance and resultant moment balance), establish students' basic concepts of force systems, and then apply them to the analysis of mechanical systems (structures and members).	3	A	Department of Marine Engineering	SDG4,SDG9
2023	1121	Doctorate	1	D730116R	A	Special Topics in Corporate Finance	1.Briefly review the core concepts of finance, including the relationship between risk and return, the time value of money, market efficiency, hedging, arbitrage, financial risk management, agency problems, behavioral finance, etc. 2. Review the theory and practice of corporate finance decisions, including capital budgeting, capital structure, the cost of ccapital, working capital management, and dividend policy. 3. In-depth discussion of important topics of corporate finance, including financial risk management, corporate governance, behavioral finance, merger and aquisition, financial crisis management, etc.	3	B	Department of Shipping and Transportation Management	SDG1,SDG4,SDG2,SDG3,SDG5,SDG9,SDG17,SDG16,SDG12,SDG11,SDG10,SDG8
2023	1121	Doctorate	2	D73021G8	A	Independent Study	This course mainly provides guidance and discussion on specific research topics for doctoral students in this department. Its purpose is to strengthen the doctoral students' basic research work abilities such as data collection, analysis, organization and induction of research topics, and the writing of research papers. , to cultivate the ability of doctoral graduate students to do independent research.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	3	B6A03S51	A	Heat Transfer	To use heat transfer principles to understand the behavior of thermal systems. To illustrate the development of the governing differential, algebraic and finite difference equations associated with thermal systems. To introduce the possible methods of solution to the governing equation. To investigate the influences of boundary and initial conditions and system parameters on the resulting steady or transient response of the system. To provdive the basic tools that are used in thermal system design. To exp	3	A	Department of Marine Engineering	SDG7,SDG13,SDG14,SDG9
2023	1121	Bachelor	4	B6A0423P	A	Research in Special Topics (Ⅴ)	This course will let the students be trained with nanotechnology, fuel cell and optical storage new energy and electrochemical techniques for connecting theories and operations.	1	B	Department of Marine Engineering	SDG3,SDG6,SDG15,SDG14,SDG13,SDG12,SDG11,SDG9,SDG7

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2023	1121	Bachelor	3	B6A03P17	A	Electronics	1. To enable students to understand the basic operating principles of semiconductor electronic components, and have the ability to analyze analog or integrated electronic circuits. 2. Let students understand the application and development trend of the latest semiconductor electronic components in the industry, and have the ability to design and apply electronic circuits in practice.	3	A	Department of Marine Engineering	SDG9
2023	1112	Bachelor	3	B3103Q31	A	Fisheries Oceanography	1. Let students fully understand the characteristics and formation mechanism of fishing grounds 2. Guide students to the concept of conservation and sustainable utilization of aquatic resources	2	A	Department of Environmental Biology and Fisheries Science	SDG1,SDG4,SDG14,SDG12
2023	1112	Bachelor	2	B3102R5F	A	Remote Sensing Practice	remote sensing practice is the transformation and exploitation of 2d data - that is, of images processes in the ocean. This course teach the theory of image processing and the application of image processing techniques via many examples on ocean features. Handling multispectral data, transformations and filtering of images, classification, texture analysis ... all the key themes in image processing and its application on commercial fishery and oceanography are also introduced.	1	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1112	Master	1	M9A011CJ	A	Study on History of Education	1. Understand the significance of looking at education from historical perspectives 2. Explore the development of educational institution and thought in different era 3. Develop the insight and individual criticism of history of education	2	B	Institute of Education	SDG3,SDG4,SDG16
2023	1112	Master	1	T4601D12	B	Seminar on Maritime Law	1. Students should be able to understand and understand the relationship between my country' s maritime law and relevant international conventions, practices or foreign laws, as well as the development trends of international maritime law. 2. Students should be able to correctly state the relevant provisions, basic theory and practice or doctrinal disputes of my country' s current maritime law. 3. When students encounter relevant factual statements, they should be able to confirm the legal disputes caused by the facts, state the relevant regulations and principles, and explain why the regulations and principles can be applied to the facts, so as to resolve the legal disputes	2	A	Institute of the Law of the Sea	SDG4,SDG16,SDG12,SDG8,SDG9,SDG10
2023	1121	Master	2	M8912I38	A	Seminar	Establish an academic exchange platform, invite domestic and foreign experts and scholars to give special speeches, and students will make comments based on the speeches. Discussions, interactions, and practice questions enable students to increase their exposure to different fields.	1	A	Department of Optoelectronics and Materials Technology	SDG4,SDG8
2023	1121	Bachelor	1	B6F01M97	B	Calculus I	The main objective of Calculus is for students to learn the basics of the calculus of functions of single and multi-variable. They will study transcendental functions, limits, differentiation and an introduction to the Riemann integral, culminating with the Fundamental Theorem of Calculus. They will also apply these ideas to a wide range of problems that include the equations of motion, related rates, curve sketching and optimization. The students should be able to interpret the concepts of Calculus algeb	3	A	Department of Marine Engineering	SDG1,SDG4,SDG8,SDG10,SDG9
2023	1121	Bachelor	1	B6F011LV	A	Introduction to Marine Engines	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2. By introducing various types of ships and their propulsion (main) and auxiliary systems, students can establish their initial concepts in the field of marine engineering, which will help them further study related theoretical and practical courses.	3	A	Department of Marine Engineering	SDG1,SDG16,SDG10,SDG9,SDG6,SDG8,SDG4
2023	1112	Bachelor	3	B57031CX	A	Machine Vision	An introduction to fundamental algorithms and applications of machine vision (computer vision) will be given in this course. The topics include digital image basics, image processing, feature extraction, pattern recognition concepts, tracking, convolutional neural networks, stereo vision, etc. We will also learn how to use the OpenCV and Tensorflow+Keras libraries to build machine vision applications.	3	B	Department of Computer Science and Engineering	SDG4,SDG8
2023	1112	Bachelor	1	B57013AU	A	Introduction to Computer Vision	This course introduces the basic concepts and applications of computer vision.	3	B	Department of Computer Science and Engineering	SDG4,SDG8
2023	1121	Master	1	M3B014MD	A	Emerging Animal Disease Defense Technologies	Animal disease detection is becoming important nowadays. This course will focus on antibody detection, disease detection, and pathogen detection of companion and economic animals. Lectures are provided by invited professionals from industry and academia. This course will discuss cutting-edge application of animal disease detection.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG9
2023	1112	Master	1	M330148J	A	Crustacean Immunology	The purpose of this course is to provide students with an understanding of the crustacean immune system, its interactions with fish pathogens, and responses to various stimuli and vaccines in the environment. Whether it is seawater or freshwater, the living environment of crustaceans is rich in different pathogens and parasites. Therefore, a complete defense system is the best strategy to resist the invasion of foreign pathogens and parasites. This course will also select appropriate literature for study and discussion in the current field of invertebrate immunology research.	3	B	Department of Aquaculture	SDG3,SDG14,SDG4
2023	1112	Doctorate	1	D89010PH	A	Semiconductor Single Crystal Growth and Manufacturing Process	Since silicon wafer material is the foundation of the semiconductor industry, academic researchers and engineers engaged in the semiconductor field must have an in-depth understanding of the basic properties and manufacturing processes of silicon wafers. In recent years, due to the vigorous development of solar cells and the demand for existing integrated circuit component manufacturing, the material production and manufacturing of silicon-based single crystal wafers has become the upstream industry with the highest gross profit in the semiconductor industry chain. This course will introduce the growth principles of various semiconductor single crystals, and use silicon-based semiconductor materials as examples to describe the growth principles of industrial silicon-based single crystals and related wafer cutting, grinding, polishing and epitaxy manufacturing technology processes. And further extend the ability to implement related single crystal semiconductor growth experiments. It also implements design and measurement 4 to 5 times with semiconductor-related samples to achieve academic-practical response	3	B	Department of Optoelectronics and Materials Technology	SDG7,SDG9
2023	1112	Doctorate	1	D8901F68	A	High-Resolution Transmission Electron Microscopy	Introduces the structure of transmission electron microscopes to establish basic knowledge for hands-on practice, and introduces the basic principles and applications of electron diffraction as well as the principles and mechanisms of image imaging. This course also focuses on the practical analysis of transmission electron microscopes in materials science. and applications.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Master	1	M57012PF	A	Advanced Image Synthesis and Deformation Technology	Image synthesis and deformation technology is an important topic in computer graphics and can be used in image processing, digital geometry processing, computer animation, and so on. This course provides various kinds of synthesis, deformation and optimization methods for students. After studying this course, hope that students will have the ability to apply image synthesis and deformation technology to many real-world problems.	3	B	Department of Computer Science and Engineering	SDG4,SDG5
2023	1112	Master	1	M5701SF6	A	Software Project Management	Introduce the basic knowledge and methods of project management, and strengthen the understanding of software projects and technology projects management methods. The goal is to develop project management capabilities to ensure project success Success and increase project productivity.	3	B	Department of Computer Science and Engineering	SDG4

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2023	1112	Bachelor	1	E4921H61	B	Chinese	Through the "life"-oriented teaching philosophy and new teaching strategies, and in line with the school's self-positioning as a "comprehensive research university with marine characteristics", we cultivate the basic qualities of "Haida people with marine vision and humanistic care" It is expected that through the reading, interpretation, appreciation and writing of literary works of different time periods, genres and styles, students can appreciate the writers' explanations of their own origins, gains and losses, and life processes, and further understand the emotional experiences and memories contained in the words. and life experience, to achieve the goal of cultivating students' senses and thinking, paying equal attention to intelligence and sensibility, and integrating aesthetics and philosophy; guide and inspire students to use observation, speculation, criticism and other abilities, and apply the connotations they have learned to implement specific actions and actions in the life around them. Taking care of people and things. This will strengthen students' Chinese reading and writing abilities, cultivate students' macroscopic vision of caring for others and their own world, and achieve the goal of improving students' aesthetic life and humanistic care. The course goal for the next semester is to focus more on the aspect of "the ocean of life of the group", hoping to use perceptual experience to feel and adjust the life interaction between oneself, others and the group, so as to enjoy meeting, knowing each other, and trusting people around such as relatives, friends, teachers, etc. Emotional exchanges, cherish the ocean of life where the group and I meet	2	A	Office of the Academic Affairs	SDG4,SDG8,SDG16,SDG10,SDG5
2023	1112	Master	1	T4601H86	A	Seminar on International Law of the Sea	It enables students to (1) understand how to use the principles of the law of the sea to coordinate negotiations and even conduct judicial procedures such as arbitration or international court litigation to reach a solution when a country has a maritime dispute; (2) understand important principles of the law of the sea, especially the 1982 United Nations Law of the Sea Many systems and provisions in the Convention are the product of mutual compromise between countries, and will be supplemented by new consensus or relevant agreements formed by subsequent countries. (3) Understand more international law of the sea judgments and precedents to facilitate future disputes over the law of the sea. Ability to analyze and comment and propose response plans.	2	B	Institute of the Law of the Sea	SDG1,SDG9,SDG14,SDG17,SDG16,SDG12,SDG8,SDG3,SDG4
2023	1112	Doctorate	1	D740143A	A	Seminar on Civil Code (Ⅱ)	Regarding the development of contract law internationally, there are signs of unification among countries. The root of this comes from the United Nations Convention on the International Sale of Goods (CISG) adopted by the United Nations in 1980. This course uses the Convention on the International Sale of Goods as the teaching content to enable students to understand the current development direction of contract law in various countries.	2	B	Institute of the Law of the Sea	SDG1,SDG8,SDG10,SDG12,SDG17,SDG16,SDG11,SDG9,SDG5,SDG4,SDG2
2023	1112	Master	1	T4F020AO	A	Research on Quantitative Approach	The purpose of this introductory course in research methods and procedures is to help students acquire the abilities to read and critique research in education and to conceptualize, design and conduct a practitioner research project specifically related to the research process. Emphasis will be placed on understanding how educational research with quantitative approach contributes to knowledge about effective professional practices in educational research.	2	B	Institute of Education	SDG4
2023	1112	Doctorate	1	D89014QO	A	Integrated Circuit Materials Characterization	It mainly introduces various testing and analysis techniques of semiconductor Integrated Circuit materials, including the basic principles of testing techniques, measurement instruments, sample preparation and application examples, etc. Microstructural Analysis Technology: XRD、XCT、AFM、SCM、SEM、FIB、TEM；Micro area composition analysis technology: AES、SIMS、XPS、EDS、EELS、FTIR、Raman.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Doctorate	1	D810123Q	A	Special topic on aerosol	Understand the distribution, transport and impact of atmospheric particles on the ocean.	3	B	Department of Marine Environmental Informatics	SDG3,SDG13,SDG11
2023	1121	Bachelor	1	B9500Y76	A	Principle and Practice of Guidance	This course will introduce the theory and practice of counseling, supplemented by problem-based learning, and guide learners to explore and develop counseling. Students are expected to be able to understand the psychology of adolescent/children, make good use of help skills to promote students'' development.	2	H	Teacher Education Center	SDG3,SDG5,SDG4
2023	1112	Bachelor	2	B3102L20	A	Ichthyology	Cultivate the skill of fish taxonomy, and learn the ecology of fishes	2	B	Department of Environmental Biology and Fisheries Science	SDG14
2023	1112	Master	1	M3501U8D	A	Environmental Economics and Resource Management	In the 111th academic year, an individual received a subsidy to implement the Ministry of Education's teaching practice research project in the environmental economics and resource management course of the Institute of Applied Economics of Hainan University. In response to the university's social responsibilities, students and teachers of the Institute of Economics rarely go into the community, and most of them study and write in front of the computer. Thesis, therefore, invited Wang Mingxiang, the local national diving coach of Badouzi, Keelung: a local self-funded soft silk restorer, self-funded marine garbage collector (10 tons per year), former deputy captain of Keelung Marine Rescue Brigade, and successfully designated Chaojing Marine Conservation Zone Set up facilitators and gillnet terminators to give lectures in class and discuss questions with practitioners, and take students into the field of practitioners so that students can understand the actual problems faced by practitioners in conserving the ocean and protecting cetaceans. Then the teacher Led several group design thinking activities, based on environmental economic theory, brainstorming to help solve the problems faced by industry practitioners, and put the theory into practice in marine conservation. In the final report, industry professionals were invited to come and propose solutions to industry problems. The teacher gives a review, comes back to come up with ideas for improvement, and then gives the results back to the teacher. Finally, Rubrics is used to collect data, conduct research and analysis, produce research reports, observe creative thinking tools, and the teacher introduces questions to help solve them. This teaching method Whether it can allow students to learn more, and also bring students into communities and fields. There is no exam in this course, and the environmental theory learned will be applied in design thinking to solve industry-teacher problems rather than just studying to contribute to ocean conservation. You can learn design thinking brainstorming tools, environmental board games, go into the field of industry experts to solve problems, visit Jilong Island and other lively teaching methods, which is an innovative way of teaching. The class time will be a little later (4:00-7:00) after the Economics of the Department of Marine Tourism Management on Monday, but there will be four classes including lectures by industry experts, field visits, landing on Keelung Island, and feedback from industry teachers during the final report. According to the industry master, the time to go to sea will not be adjusted on Monday. We will discuss the time with everyone. At present, discussions and consultations have been completed with teachers to confirm the implementation method of 111-2 for the next semester. The field of teachers is currently needed for teacher conservation: the traceability of marine debris and the assistance of whale and dolphin strandings in recent years. Mainly, I would like to thank the professional master Wang Mingxiang and the national diving instructor for agreeing to assist in this	3	B	Institute of Applied Economics	SDG1,SDG12,SDG17,SDG14,SDG13,SDG11,SDG4,SDG7,SDG8,SDG9,SDG6,SDG3
2023	1112	Bachelor	3	B8903I3J	J	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	4	B6D041KX	A	Leadership and Engineroom Resource Management	1. Comply with STCW A-III/1,2 international regulations and obtain training certificate 2. Understand the knowledge of safe operation of ships 3. Understand the essentials of ship leadership and command, communication and coordination	3	B	Department of Marine Engineering	SDG4
2023	1121	Master	1	M3B014MF	B	Biotechnology Internship for multidisciplinary health industry	Provide internship opportunity for students in companies related to AI application in agricultural biotechnology industry. Students who enrolled in this course can obtain experience and explore their career development through actual participation in company operation.	1	B	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	1	B6F01U24	A	Statics	Introduce the basic laws of statics (resultant force balance and resultant moment balance), establish students' basic concepts of force systems, and then apply them to the analysis of mechanical systems (structures and members).	3	A	Department of Marine Engineering	SDG4,SDG9
2023	1112	Bachelor	3	B6A0316S	B	Research in Special Topics (I)	Cultivate students' research and development capabilities in organization, application, integration, and innovation using past basic subject knowledge.	1	B	Department of Marine Engineering	SDG4,SDG9
2023	1112	Master	1	M72013GL	A	Big Data Analysis and Applications	This course introduces the fundamentals of big data analytics. The advance topics on data mining technique for big data analytics and their emerging applications are discussed in the course.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M7201596	A	Finite Element Method	The objective of this course is to encourage students to learn the principles of finite element methods, derive the finite element formulations, train for the ability to code the finite element programs, and possess the skill on application of commercial packages to solve the engineering problems. This would help students as engaging in the job market to have the capabilities on the development of analysis software and the application of numerical modeling on the product design or failure analsysis.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M3201K4A	A	Protein Engineering	Let students understand the background knowledge required for protein engineering, and then start related research based on the understanding in this course	2	B	Department of Food Science	SDG4
2023	1121	Master	1	M32014OK	A	Microbial Physiology	This course discusses microbial structure, growth and metabolism, transport and movement, fermentation, DNA and RNA synthesis and repair, and uses scientific literature to explore applications of microbial physiology.	2	B	Department of Food Science	SDG4
2023	1121	Master	1	M320146P	A	Biopolyme	1. To enable students to understand the basic physical and chemical properties of biopolymers. 2. To enable students to understand the application of biopolymers in food, biomedicine and other fields.	3	B	Department of Food Science	SDG9,SDG12
2023	1112	Doctorate	1	D8101A5B	A	Dynamics of Tropical Ocean and Atmosphere	To understand the ocean and atmosphere dynamics in the tropical oceans and their interactions	3	B	Department of Marine Environmental Informatics	SDG13
2023	1112	Master	1	M02014BY	A	Big Data for Food Management and Applications	The teaching goal of this course is to train students to use the theoretical methods of big data analysis in food management and application, and to equip students with the ability to solve real problems using big data analysis technology. Mainly include: (1) Students can understand big data databases. (2) Students can master data construction and data analysis rules (3) Students can have the ability to construct models (4) Students can improve their big data analysis and digital decision-making abilities.	3	B	Institute of Food Safety and Risk Management	SDG4,SDG9
2023	1121	Doctorate	1	D32011IJ	A	Introduction to the Chinese Medicines	This course will introduce students to the basic concepts of Traditional Chinese Medicine (TCM) and inspired the students employing the modern research methodology to study the effect of TCM.	3	B	Department of Food Science	SDG1,SDG12,SDG4,SDG3
2023	1112	Doctorate	2	D73021G8	A	Independent Study	This course focuses on independent study on wetlands related topics. It also provides scientific training in problem identification, literature review, hypotheses development, experimental design, proposal writing, experiments implementation, data presentation and scientific paper writing	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Master	2	M3212I3L	B	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1121	Master	2	M3212I3L	D	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG3
2023	1121	Master	2	M3212I3T	C	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG3,SDG16,SDG12,SDG4,SDG9,SDG10
2023	1121	Master	1	M3211I3L	A	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	2	B9D023L0	A	Workplace English (Intermediate)	This course is designed to give students the knowledge and confidence necessary to handle daily business affairs in their future workplace. The course will cover many real-life business situations that professionals would encounter. These every-day situations include not only social interactions but also practical transactions. After course completion, students will have developed sufficient vocabulary and listening comprehension skills to write and speak English effectively in key commercial communication areas.	2	B	Institute of Applied English	SDG4,SDG8
2023	1112	Bachelor	1	B95013LH	A	Vocational education training and career development	According to the provisions of Taiwan Teachers (2) Letter No. 1060076930 issued by the Ministry of Education on June 1, 2020, starting from the 2015 academic year, in accordance with the amendments to the Technical and Vocational Law, "vocational education and training" and "career planning" related courses are listed as Compulsory credits for pre-service teacher education courses. The Teacher Training Center of our school merged these two courses into Vocational Education Training and Career Planning (1 credit) in the 108th academic year. Through course introduction, teacher trainees can understand the application of vocational education training and career planning in the field of education. In the early stage, teacher trainees will have the ability and concepts to educate students for diversified further studies. 2. Course Objectives 1. Understand the concept and system of Vocational Education and Training (VET) 2. Understand the purpose and methods of career planning 3. Experience the teaching methods of different types of education systems 4. Possess the concepts and teaching abilities for diversified further studies 5. Have career development and career consulting application capabilities 6. Understand the system and application of Career Development Advisor (CDA)	1	H	Teacher Education Center	SDG4

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2023	1121	Bachelor	1	B7601TU0	A	An Introduction to Marine Tourism and Recreation	1. Cognitive part: To enable students to understand the connotation and practice of marine tourism theory, tourism guide theory and interpretation skills,and Keelung''s local tourism status and development.To understand the interaction and competitive relationship between academia and industry-government practice,and build basic knowledge of tourism theory and practice. 2. The affection part: Through the combination of tourism theory and practice, students can connect knowledge and social issues,and participating in local services by personally.Cultivate their civic qualities, abilities and knowledge of "democracy", "ethics", and "aesthetics".Hope students can use of what you have learned and influence the society, and build a society with the concept of sustainable ocean tourism. 3. Skill part: To enable students to be familiar with professional knowledge such as sightseeing guidance, planning and practice.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG11
2023	1112	Bachelor	1	B9502Y48	A	Classroom Management	1. Understand the theoretical basis of classroom management 2. Study the strategies of classroom management 3. Development of creative classroom management model 4. Understand the use of information media in classroom management	2	H	Teacher Education Center	SDG3,SDG4
2023	1112	Bachelor	1	E4A011KH	A	Electronic Chart Display and Information System	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Charter, and complies with the International Maritime Organization (IMO) Model Course 7.03-1.4 (Use of ECDIS to maintain safety of navigation), and Model Course 1.27 – Specifications for the operational use of operational-level electronic chart display and information systems (Operational Use of ECDIS). Courses are planned taking into account the teaching of relevant necessary knowledge and skills, so that students can not only understand the various regulations of IMO/IHO for this system, but also have the basic knowledge and necessary skills to operate the system.	2	A	Department of Merchant Marine	SDG4,SDG16
2023	1112	Doctorate	1	D86011ZX	A	Special Topics on Quantitative Methods in Paleoclimatology	Reading and discussion on original paleoceanographic and paleoclimatological MS or Ph.D. level research articles with an emphasis on quantitative methods of paleoecological transfer functions, paleoclimatic time series analysis, and multivariate statistical analysis and application.	3	B	Institute of Earth Sciences	SDG14
2023	1112	Bachelor	2	B6A03T00	A	Engineering Watch Keeping	The content of the subject curriculum are according with the IMO Model course 7.04 modules 29： Training objective to obtain professional skills and certification, training and leadership of senior marine engineer enable to play a heavy duty jobs	2	B	Department of Marine Engineering	SDG9,SDG11,SDG12,SDG14
2023	1112	Bachelor	3	B6A031KC	A	Proficiency in Survival Craft and Rescue Boat	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliances, and refers to the Model Course 1.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats and the 2010 Amendment Rules of the 1978 STCW International Convention. VI/2, SOLAS international convention and LSA regulations and other newly revised contents, taking into account the teaching of relevant necessary knowledge or skills, teaching students to understand and be able to correctly operate and use life-saving equipment, and at the same time become familiar with the use of various survival communication equipment and in harsh weather conditions Professional knowledge and skills such as raft maneuvering, and then master and control how individuals and all passengers on the ship can effectively avoid dangers under abnormal ship conditions, and cope with various difficulties in dangers, so as to achieve the purpose of self-rescue and rescue.	2	B	Department of Marine Engineering	SDG12,SDG17,SDG14
2023	1112	Bachelor	3	B6A03N2Q	A	Advanced Fire Fighting Aboard	Ship fire-fighting training is according to STCW code, all ship’ s crews need to take the basic training, and deck officers need to learn more about advanced fire-fighting knowledge and skills. Which can decrease the loss in in the disaster and save human life and ship’ s property.	2	B	Department of Marine Engineering	SDG11,SDG17,SDG14,SDG12
2023	1112	Bachelor	2	B6A02P53	A	Electric Machines	1. Understand the basic knowledge and operating principles of electric machinery. 2. Know the types, structures, characteristics and industrial applications of electric machinery. 3. Cultivate the operation and maintenance ability of electric machinery.	3	A	Department of Marine Engineering	SDG7,SDG11,SDG9
2023	1121	Master	1	M51014O9	A	Shipping Operations Strategy and Management(Ⅰ)	The main subject of this course is ship construction and repair and its operation management, and a systematic introduction to ship engineering is given. Through the introduction of professional knowledge of ships, the application of practical engineering and management integration, with group discussions, shipyard and ship visits, etc., are expected to be familiar with the current industry situation and future development trends, and make advance deployments for their own careers.	2	B	Department of Systems Engineering and Naval Architecture	SDG3,SDG7,SDG12,SDG14,SDG13,SDG6
2023	1121	Doctorate	3	D3213I38	B	Seminar	The aims of this class are to strengthen the abilities of students to study and organize the recent scientific literature. This class also provides an opportunity for graduate students to develop skills in oral presentation and discussion of various research topics in a public forum.	1	A	Department of Food Science	SDG1,SDG4,SDG12,SDG9,SDG6,SDG3
2023	1112	Bachelor	1	B560129S	A	Engineering Graphics & Drawing(Ⅱ)	Teach students to establish the basic concepts of AutoCAD, command and use advanced functions, so that students can have basic drawing skills in the engineering field and understand drawings related to the marine engineering field.	2	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4
2023	1112	Bachelor	3	B56034QY	A	Special Topic Research - Engineering applications and countermeasures of ocean wave amplification	Wave size is one of the expressions of wave energy. In practical engineering projects, it is often necessary to face and deal with the interaction between wave energy and structures or terrain. The goal of this course is to help students understand their own abilities and interests. Combining the theories learned in class, it encourages students to independently complete the basic engineering process through active learning methods and the assistance of instructors: searching for information, proposing solutions, executing solutions, and feasibility. Evaluate and write reports.	2	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG11
2023	1121	Doctorate	2	D3212I38	B	Seminar	The aims of this class are to strengthen the abilities of students to study and organize the recent scientific literature. This class also provides an opportunity for graduate students to develop skills in oral presentation and discussion of various research topics in a public forum.	1	A	Department of Food Science	SDG1,SDG3,SDG9,SDG6,SDG4
2023	1121	Doctorate	1	D3201A72	A	Advanced Health Food	This course was designed through seminar presentation, that will extend the basic knowledge of Health Food. The lectures will focus on intensively active areas of cellolar immunology research. Basic principles will be reinforced by considering disease states in which basic cell biological processes as well as immune response are defective.	3	B	Department of Food Science	SDG3,SDG9,SDG17
2023	1112	Bachelor	1	B5621M97	A	Calculus	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG5
2023	1112	Master	1	M8101UD1	A	Environmental Data Analysis	Let students understand the basic methods of data analysis	2	A	Department of Marine Environmental Informatics	SDG13

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2023	1112	Master	1	M7101MB5	A	Quantitative Analysis Methods and Their Applications	The purpose of this course is to enable students to understand the concepts, techniques and applicable situations of basic numerical methods, and to use programming language to solve problems encountered in a large number of mathematical operations in the field of scientific research. At the same time, through the introduction and implementation of the MATLAB programming language, you will learn how to use the concepts of numerical methods to write clear, concise, efficient and easy-to-execute applications to assist in processing mathematics, science, engineering, data analysis or statistical operations, etc. related applications on.	3	B	Department of Merchant Marine	SDG8,SDG11
2023	1112	Bachelor	1	B300147N	A	Biotechnology	Provide lectures emphasizing the principles of molecular biotechnology and its application on various fields related to human disease and marine science.	3	B	College of Life Sciences	SDG3,SDG4,SDG14
2023	1112	Doctorate	1	D86011ZW	A	Special Topics on Asian Monsoon Paleoclimatology	Reading and discussion on original paleoceanographic and paleoclimatological MS or Ph.D. level research articles with an emphasis on Asian monsoon variability and evolution since the late Neogene at tectonic, orbital, and millennial to centennial time scales.	3	B	Institute of Earth Sciences	SDG14
2023	1112	Bachelor	2	B3202A71	A	The Principle of Food	Let students understand the nature, characteristics, production and basic processing and utilization of food materials to lay the foundation for studying food chemistry in the future.	2	B	Department of Food Science	SDG4
2023	1112	Master	1	M32014RG	A	Free Radical and Disease	Enable students to understand the impact of free radical production and defense mechanisms on disease	2	B	Department of Food Science	SDG3,SDG4
2023	1112	Bachelor	3	E4203N6J	A	The Manufacture of Agricultural Plants	To enable students to understand the characteristics of agricultural raw materials and the processing methods of various products, and then develop new products.	3	B	Department of Food Science	SDG4,SDG11,SDG12,SDG9
2023	1112	Master	1	M72012YO	A	Deep Learning	Let students understand various deep learning model principles and techniques, and use MATLAB to implement multiple deep neural network model examples.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	3	B5603C18	A	Ocean Engineering	Introduce the environment and stress of marine structures and how they affect the design, construction, maintenance and operation of various marine structures. Students who complete this course should have the following abilities: 1. Use your own vocabulary and understanding to explain the connotation and basic methodology of ocean engineering. 2. Be able to explain the basic connotations of various professional marine engineering. 3. Have a basic understanding of the social responsibilities and codes that engineers should have.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG9
2023	1121	Bachelor	1	B7601ZA0	A	Introduction to Business Management	The purpose of this course is to give students an understanding of how the most important economic organizations work under the capitalist system. The course content is roughly divided into three key points 1. The business environment directly related to the enterprise. Only by understanding environmental changes can we identify potential opportunities and avoid possible risks. 2. What is a business? Introduction from concept to specific enterprise organization. 3. What are the essential functions of the enterprise? Introduce in order: production and operation, marketing, human resources, information, finance, etc.	2	A	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG12
2023	1112	Bachelor	3	B81030CT	A	Matlab Application	Matlab is a computer language of mathematic with an interactive environmental. Matlab is widely used on science and engineering. This course will teach the advanced programing skills of Matlab, including calculation, statistics, analysis, and graphics. Students will hold the skills and abilities of processing scientific and engineering issues by using Matlab after this course.	3	B	Department of Marine Environmental Informatics	SDG4
2023	1112	Bachelor	2	B5602690	A	Mechanics of Material	Mechanics of materials is a fundamental course for students in engineering division. The course includes the strength and physical performance of structures, fundamental concepts, stresses and strains, deformations and displacements, elasticity and inelasticity, strain energy and load-carrying capacity. The concepts underlie the design and analysis of a huge variety of mechanical and structural systems. The main topic of this course is to analysis and design structural members subjected to tension, compression, torsion and bending. Transformations of stress and strain, combined loadings, stress concentrations, deflections of structures and stability of columns are introduced in the course.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG9
2023	1112	Bachelor	2	B5622086	A	Engineering Mathematics	Engineering mathematics is a tool used by engineers to solve engineering problems. The course scheduling period allows students to understand engineering problems and corresponding mathematical models, establish correct concepts, and further cultivate students' abilities to analyze mathematically and simplify and solve engineering problems.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4
2023	1112	Master	1	M33011GX	A	Aquaculture Genome and Selection	Purpose of the application of the genome and selection methodology is to improve the breeding values of economical traits of the aquatic animals in the aquaculture selected program. Teaching materials from text books, class handouts and review of periodical literature every week. The course will help graduate students to justify their special research question, discussion and hypothesis.	3	B	Department of Aquaculture	SDG2,SDG4,SDG12,SDG13,SDG8
2023	1112	Doctorate	1	D3201U8K	A	Environment Toxicology(I)	*	3	B	Department of Food Science	SDG4
2023	1112	Doctorate	3	D3223J25	A	Thesis	Enable students to learn how to write essays.	6	A	Department of Food Science	SDG4
2023	1121	Master	1	M3B011BF	A	English Grammar and Exercise	The course aims to help students acquire the ability to read and write college-level reading materials fluently. In class, the instructor will introduce a variety of sentence combining and expanding techniques—including grammar, usage, and punctuation; then, students, provided with follow-up exercises, will be asked to apply these techniques to produce more specific, concise and fluent sentences. By the end of this course, through abundant sentence-combining practice, students are expected to be able to use a variety of ways to express their ideas out onto the page in clear and coherent English.	2	B	Department of Bioscience and Biotechnology	SDG1,SDG4
2023	1112	Master	1	M3301P80	A	Experimental Biology	To introduce the application molecular biology and genetic engineering and to discuss the recent papers	3	B	Department of Aquaculture	SDG1,SDG7,SDG12,SDG9,SDG6,SDG2,SDG3,SDG4
2023	1112	Master	1	M330118M	A	Instrumental Analysis of Heavy Metal	Practical-related courses to enhance students' professional knowledge and ability in the inspection and instrumental analysis of Heavy Metal	3	B	Department of Aquaculture	SDG1,SDG16,SDG17,SDG14,SDG3,SDG8,SDG9,SDG11,SDG4,SDG2
2023	1112	Doctorate	1	D3301151	A	Reproduction and Endocrinology	This course enables graduate students to understand the overall concept of endocrine, including glands, target organs, signal transmission, physiological functions, and the interaction of various endocrine systems. It also analyzes various endocrine action mechanisms at the molecular level. This course also strengthens the introduction The peculiarities of the fish endocrine system. This course enables graduate students to understand the overall concept of endocrinology, including glands, target organs, signal transmission, physiological functions, and the interaction of various endocrine systems. It also analyzes various endocrine action mechanisms at the molecular level. This course also strengthens the introduction The peculiarities of the fish endocrine system.	3	B	Department of Aquaculture	SDG12,SDG14
2023	1112	Bachelor	4	B33043S3	A	Industrial Training	aquaculture industrial prctice	6	B	Department of Aquaculture	SDG1,SDG2,SDG3,SDG8,SDG11,SDG14,SDG17,SDG16,SDG12,SDG9,SDG4

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2023	1112	Bachelor	2	B3202448	C	Biochemistry Lab. (I)	Basic techniques in biochemical research and analytical laboratories. Intended for students who are not proceeding further in biochemistry.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B720315G	C	Case Study	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M3201L7Q	A	Innovative Food Science and Technology	This course enables students to acquire the processing principles and new technologies of food processing and preservation.	3	B	Department of Food Science	SDG4,SDG12,SDG11,SDG9
2023	1112	Bachelor	1	B5201M1A	A	Surveying (Ⅱ)	Through the explanation of the basic principles and calculation methods of surveying, as well as the introduction of the structure and operation of surveying instruments, students can understand the practical application relationship of surveying to civil engineering, water conservancy and river and sea engineering, and be familiar with the surveying operation methods and procedures, so as to Combined with actual surveying operations; it also introduces new concepts, new technologies and new instruments in surveying and mapping, allowing students to understand the development trends of today's surveying and mapping technology, clarify the basic principles and calculation methods of surveying, and introduce the structure, operation and calibration procedures of surveying instruments, through Through the operation and calibration exercises of various measuring instruments, as well as the internship of various surveying methods and procedures related to civil engineering, water conservancy and river and sea engineering, students can fully understand the practical work of surveying and be better able to use this surveying practice in the future. Operational skills are applied in professional services	2	A	Department of Harbor and River Engineering	SDG3,SDG11,SDG9
2023	1112	Bachelor	3	B8903S60	A	Linear Algebra	Introduction to concepts, principles and methods of linear algebra, which includes matrices, determinants, vector spaces, orthogonality and eigenvalues.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1112	Bachelor	1	B890126J	A	Fundamentals of Electro-optics	This course explores some basic principles and related applications in the fields of optics and optoelectronics in a simple and easy-to-understand manner. The content starts with the history of light research, and then discusses the impact of light on modern technology. Next, we will explore the characteristics and related principles of light from the perspectives of geometric optics, wave optics, photons, etc., and then explore in depth the interaction between light and matter, including interactions without energy exchange and with energy exchange, and then explore the products made using these principles. Various types of optical components, optoelectronic components and optoelectronic systems, including lenses, gratings, lighting sources, light-emitting diodes, lasers, displays, digital cameras, solar cells, optical communication systems, etc. It is hoped that scholars can have a glimpse of the whole field of optics and optoelectronics and lay a good foundation for optics and optoelectronics.	3	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B6A0423P	B	Research in Special Topics (Ⅴ)	Cultivate students' research and development capabilities in organization, application, integration, and innovation using past basic subject knowledge.	1	B	Department of Marine Engineering	SDG4
2023	1121	Bachelor	3	B6A03T74	A	Mechanism	This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level.	3	A	Department of Marine Engineering	SDG4
2023	1112	Master	1	M5201581	A	Multiple Criteria Decision Making	To introduce the application of multicriterion decision making in finding compromise solutions under conflict situations.	3	B	Department of Harbor and River Engineering	SDG4,SDG16
2023	1112	Bachelor	2	B9502Y1Q	A	Instructional Internship for Subjects of Marine Science	1. To understand the marine science subject''s current teaching activities and classroom management practices. 2. Observe and observe the teaching of related subjects and analyze the procedures and steps of teaching activities. 3. Use teaching methods and strategies flexibly to design lesson plans. 4. Validate teaching theory or theories through simulated teaching experiences. 5. Try to establish their teaching model through self-reflection and joint discussion.	2	H	Teacher Education Center	SDG4
2023	1112	Master	1	T4F013A5	A	The research on history of education and schooling	1. Understand the significance of looking at education from historical perspectives 2. Explore the development of educational institution and thought in different era 3. Develop the insight and individual criticism of history of education	2	B	Institute of Education	SDG4,SDG16
2023	1112	Master	1	T460153A	B	Criminal Law - Kinds of Offenses	This course will teach students systematically through systematic content and explanations with examples, so that students can master the various types of crimes stipulated in the criminal law.	2	A	Institute of the Law of the Sea	SDG10,SDG16
2023	1121	Bachelor	3	B6A0322E	B	Research in Special Topics (Ⅲ)	The application of computational fluid dynamics (CFD) to engineering problems, rather than grid-building techniques, discretization methods, CFD algorithms, or numerical stability.	1	B	Department of Marine Engineering	SDG7,SDG14,SDG13,SDG11
2023	1121	Bachelor	4	B6A0423P	C	Research in Special Topics (Ⅴ)	The application of computational fluid dynamics (CFD) to engineering problems, rather than grid-building techniques, discretization methods, CFD algorithms, or numerical stability.	1	B	Department of Marine Engineering	SDG7,SDG13,SDG9,SDG14
2023	1121	Master	1	M3201A51	A	Food Unit Operation	Apply food engineering calculation technology to various operations of food processing	3	B	Department of Food Science	SDG4
2023	1112	Doctorate	3	D3223I38	A	Seminar	1.To provide you with an opportunity to be acquainted with other graduate students 2.To provide you with trainings in how to assess the work from scientific papers and give constructive feedbacks 3.To provide you with trainings in how to present your own research, both in writings and orally	1	A	Department of Food Science	SDG4
2023	1112	Doctorate	2	D3222I38	B	Seminar	The aims of this class are to strengthen the abilities of students to study and organize the recent scientific literature. This class also provides an opportunity for graduate students to develop skills in oral presentation and discussion of various research topics in a public forum.	1	A	Department of Food Science	SDG2,SDG14,SDG15,SDG4,SDG3
2023	1112	Doctorate	1	D3201169	A	Molecular Immunology	This course was designed through seminar presentation, that will extend the basic knowledge of immunology. The lectures will focus on intensively active areas of cellolar immunology research. Basic principles will be reinforced by considering disease states in which basic cell biological processes as well as immune response are defective.	3	B	Department of Food Science	SDG3,SDG9
2023	1112	Bachelor	2	B9D023L2	A	Tourism English (Intermediate)	Strengthen and enhance tourism English abilities of listening, speaking, reading, writing and vocabulary.	2	B	Institute of Applied English	SDG4,SDG12,SDG8,SDG11
2023	1112	Bachelor	2	E4202A32	A	Food Products Technology (2)	The purpose of this course is to introduce the practical application of various types of food processing methods, and to explain the chemical and physical changes of raw materials during processing.	2	A	Department of Food Science	SDG4,SDG9,SDG12,SDG11
2023	1112	Bachelor	3	E4203A30	A	Food Products Technology Lab.	The purpose of this course is to introduce the practical application of various types of food processing methods, and to explain the chemical and physical changes of raw materials during processing.	1	A	Department of Food Science	SDG3,SDG4
2023	1112	Bachelor	3	B81034RH	A	Process of Atmosphere-ocean	The process of atmosphere and ocean is an important subject of the geophysical fluid dynamics. 70% of the Earth surface is covered by the ocean, which is the main forcing of the atmosphere above. This course will introduce the basic circulations of the ocean and the atmosphere and their interactions, such as tropical cyclones and the El Nino-Southern Oscillation.	3	B	Department of Marine Environmental Informatics	SDG4,SDG13
2023	1112	Bachelor	3	E4203A5E	A	Food Enzymology	The purpose of this course is to understand the types of enzymes that can be used in food processing in nature, and to introduce the structure, activity, characteristics, biochemical properties and application methods of these enzymes.	2	B	Department of Food Science	SDG9

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2023	1112	Doctorate	1	D81014RI	A	Introduction to numerical modeling forecasting	This course provides the basic concept, and the method and analysis of numerical calculation. This course will also focus on the understanding the processes of ocean and atmosphere. Students will apply what they have learned from numerical modeling on the forecasting of the ocean and atmosphere.	3	B	Department of Marine Environmental Informatics	SDG4
2023	1112	Bachelor	3	B3A0347N	A	Biotechnology	The aim of the class is to introduce upper level undergraduate students to the main theoretical concepts and experimental designs in biotechnology. Specific course aims include: (1) an introduction of the basic concepts and issues in biotechnology, (2) development of techniques and data analysis, (3) develop skills in protein production, purification and characterization, and (4) develop an understanding of the application of these techniques in medicine and the agriculture.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	2	B31023RL	A	Introduction to fisheries administration and management	This course enables students to learn about the current system of fishery business administration and its relationship with Fishermen''''s Association, and potential countermeasures to improve the new organization of fishery management. Through the above learning content, students are encouraged to think critically and identify ways to improve the countermeasures for fishery business administration.	3	B	Department of Environmental Biology and Fisheries Science	SDG1,SDG12,SDG8,SDG11
2023	1112	Bachelor	2	B3102B60	A	Meteorology	To introduce essentials of meteorology including fluctuation and variabilities of weather system,	2	A	Department of Environmental Biology and Fisheries Science	SDG13
2023	1112	Master	1	T4I01E43	A	Advanced Charter Party	1. Characteristics of shipping markets 2. Terms and conditions and main terms in contracts 3. Gencon voyage charter, 1994 4. NYPE time charter, 1993	3	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	3	B6A0322B	B	Research in Special Topics (IV)	The application of computational fluid dynamics (CFD) to engineering problems, rather than grid-building techniques, discretization methods, CFD algorithms, or numerical stability.	1	B	Department of Marine Engineering	SDG11,SDG14
2023	1121	Master	1	M32014SD	A	Development of Health Food and Senior Food	The increasing incidence of chronic diseases and the rapid aging of the population are common global issues. Therefore, food research and development will be diversified towards the prevention of chronic diseases, auxiliary disease treatment, anti-aging and functional health care. The objectives of this course are: 1. To enable students to understand the causes of chronic diseases and the dietary needs of the elderly population; 2. Help students learn the role of food in healthy aging and disease prevention; 3. Provide industrial examples to shorten the learning-application gap; 4. Help students understand food research and development trends and management points; 5. Encourage independent learning and establish goals for future employment and further study.	2	B	Department of Food Science	SDG3,SDG4
2023	1121	Bachelor	3	B6D034OB	A	Engineering Technology and Design of Ship I	Students can understand the operation and process of ship design department from this course, extensively learn the basic knowledge and skills of ship design, and establish the capabilities before entering the workforce and being a ship designer.	3	B	Department of Marine Engineering	SDG1,SDG4,SDG9,SDG8
2023	1121	Bachelor	2	B76020ZB	A	Financial Management	The purpose of this course is to provide students with an overview of financial management. After the course, students would be able to have a better understanding of the following. 1.Definition of financial management fields 2.Significance of financial management for non-finance students and professionals 3.Important concepts and skills in financial management and investment.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG1,SDG10,SDG8
2023	1112	Doctorate	1	D3B011NR	A	Phylogenetic Analysis	The objectives of this course are to introduce the theoretical background of different phylogenetic analysis methods and their applications; and to know how to use the software.	2	B	Department of Bioscience and Biotechnology	SDG3
2023	1112	Doctorate	2	D3B22I38	A	Seminar	Train students to read the latest professional journals and report their reading experiences in an orderly manner after sorting them out, in order to achieve the purpose of absorbing new knowledge and increasing expression skills.	1	A	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	1	E49012JU	A	Intellectual Property Rights Practices	The Legislative Yuan passed the "Intellectual Property Case Trial Law" on the third reading on January 9, 1996, and enacted the "Intellectual Property Court Organization Law" on March 5, 1996; since its implementation, a considerable number of practical cases have been accumulated . This course is based on the theory of the prerequisite course "Introduction to Intellectual Property Law" and provides advanced teaching of important concepts in "Trademark Law" and "Patent Law", such as traditional and non-traditional trademarks, trademarks and seals, and trademark examination and evaluation. ;Office and non-office inventions, principle of exhaustion of rights, parallel input of genuine products, priority system, etc. Current cases are also used to discuss the methods and problems in practical application of my country's current intellectual property legal system.	2	C	Office of the Academic Affairs	SDG4,SDG10,SDG12,SDG16
2023	1112	Doctorate	3	D3223I38	B	Seminar	The aims of this class are to strengthen the abilities of students to study and organize the recent scientific literature. This class also provides an opportunity for graduate students to develop skills in oral presentation and discussion of various research topics in a public forum.	1	A	Department of Food Science	SDG2,SDG15,SDG14,SDG3,SDG4
2023	1112	Bachelor	1	B5201M1A	B	Surveying (Ⅱ)	Through the explanation of the basic principles and calculation methods of surveying, as well as the introduction of the structure and operation of surveying instruments, students can understand the practical application relationship of surveying to civil engineering, water conservancy and river and sea engineering, and be familiar with the surveying operation methods and procedures, so as to Combined with actual surveying operations; it also introduces new concepts, new technologies and new instruments in surveying and mapping, allowing students to understand the development trends of today's surveying and mapping technology, clarify the basic principles and calculation methods of surveying, and introduce the structure, operation and calibration procedures of surveying instruments, through Through the operation and calibration exercises of various measuring instruments, as well as the internship of various surveying methods and procedures related to civil engineering, water conservancy and river and sea engineering, students can fully understand the practical work of surveying and be better able to use this surveying practice in the future. Operational skills are applied in professional services.	2	A	Department of Harbor and River Engineering	SDG3,SDG9,SDG11
2023	1112	Bachelor	3	B3A0347H	A	Biotechnology Lab.	This course is designed to implement the theory of biotechnology in basic experiments and make students familiar with basic biotechnology operations.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B3A04A53	A	Microbiology of Foods Lab.	To cultivate students who have completed this course to have the initial ability to independently conduct basic food-related microbiology experiments.	2	A	Department of Food Science	SDG4
2023	1112	Doctorate	1	D89014QP	A	Solar Cell Operating Principles and Technologies	英Basic working principles and design of solar cells, traditional cell fabrication techniques. It includes an introduction to the origin of solar cells and the properties of sunlight; a brief review of the basic properties of semiconductors and the related properties of semiconductor materials needed to make cells; an introduction to the interaction between sunlight and semiconductors, covering the effects of semiconductors on the light absorption process, the generation and recombination of carriers, and the basic equations of the physics of semiconductor devices, etc.	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG7
2023	1121	Bachelor	3	B3203897	A	Quality Control	Train students to understand the definition, evolution and principles of quality management, teach various counting and measurement inspection and sampling methods, and discuss various types of product quality management cases.	2	B	Department of Food Science	SDG4

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2023	1121	Bachelor	4	B39044SE	A	Life cycle nutrition	Let students understand the nutritional needs and dietary principles required by physiological changes during different life stages.	2	B	Department of Food Science	SDG4
2023	1112	Master	2	T4Y024QK	A	Management and Case Study Analysis	1. Help students understand the theoretical knowledge of management and related practical issues. 2. Cultivate students' ability to analyze and solve management-related problems. 3. Learn problem-solving abilities from management and transportation logistics case analysis. 4. Interactive and participatory learning - learn management-related knowledge from partners.	2	B	Department of Transportation Science	SDG12,SDG17
2023	1121	Bachelor	3	B6D0339N	A	Programmable Logic Control	Programmable Logic Controller is a control device which replaces traditional control circuits. PLC structure, principle and applications will be introduced in this course.	3	B	Department of Marine Engineering	SDG4,SDG9,SDG17,SDG8,SDG5
2023	1112	Bachelor	3	B530319B	A	Antenna Engineering	This course is aimed to acquaint the antenna behaviors in wireless communication and inspire the student to learn the radiation mechanism and techniques of antenna design.	3	B	Department of Electrical Engineering	SDG9
2023	1121	Bachelor	2	B7602C34	A	Marine Ecology	The aim of Marine Ecology introduce the basic concept of marine ecology, let student to unsturdand the sturcture of marine ecosystem.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG14
2023	1112	Master	1	T4Y014QH	A	Forecasting: principles and practice	The purpose of this course is to provide a comprehensive introduction to forecasting methods and allow students to quickly understand each forecasting method. The course content not only discusses cross-sectional data forecasting issues, but also focuses on time series forecasting. It can help companies prepare for possible future uncertainties.	2	B	Department of Transportation Science	SDG3
2023	1112	Doctorate	2	D3222I38	A	Seminar	1.To provide you with an opportunity to be acquainted with other graduate students 2.To provide you with trainings in how to assess the work from scientific papers and give constructive feedbacks 3.To provide you with trainings in how to present your own research, both in writings and orally	1	A	Department of Food Science	SDG4
2023	1112	Doctorate	1	D32010D4	A	Introduction on Scientific New Knowledge	Strengthen students' overall knowledge of life sciences, and also add courses on new knowledge in life sciences and molecular biology research methods, so that students can have a deeper understanding of the nature of science, scientific spirit and research attitudes, and provide graduate students with opportunities to participate in different life science research topics. Discuss opportunities for interaction.	3	B	Department of Food Science	SDG4
2023	1112	Doctorate	1	D32010PP	A	Tissue Engineering	Tissue Engineering	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3303U78	B	Nutrition and Feeding Lab.	Distinguish Feed Ingredients, feed production, and analyze feed nutrients.	1	A	Department of Aquaculture	SDG4,SDG14,SDG12
2023	1112	Bachelor	3	B3303U78	A	Nutrition and Feeding Lab.	Distinguish Feed Ingredients, feed production, and analyze feed nutrients.	1	A	Department of Aquaculture	SDG4,SDG14,SDG12
2023	1112	Bachelor	2	B33022IF	A	Aquaculture Lab. (II)	In conjunction with aquaculture theory, scholars are trained to have on-site breeding operation capabilities, so that they can apply it skillfully on the spot and avoid being too ambitious and short-handed.	1	A	Department of Aquaculture	SDG1,SDG17,SDG14,SDG3,SDG4,SDG12,SDG11,SDG2
2023	1112	Bachelor	2	B3302291	A	Aquatic Invertebrate	In order to cultivate students' understanding of aquatic invertebrates, the teaching content introduces the physiology, endocrinology, immunity and aquatic disease prevention and control of aquatic invertebrates, and uses live breeding examples to deepen students' impressions, hoping to achieve students' comprehensive understanding of aquatic organisms. learn.	2	B	Department of Aquaculture	SDG1,SDG3,SDG11,SDG14,SDG17,SDG12,SDG4,SDG2
2023	1112	Bachelor	4	B3904H1F	A	Food genetic recombination	Genetically modified food is the abbreviation of Genetically Modified Food. It is a product grown or cultured by artificially separating genes and then transplanting it into another organism and related products. For example, by transfecting genes that resist pesticides into crops, the dosage of pesticides can be reduced; or by transfecting genes that produce vitamins or minerals into soybean or corn seeds, the supply of nutrients can be enhanced. content, or bananas containing antibiotics; even French fries with cholera vaccine genes. Genetically modified food refers to food that has been produced with modified characteristics using genetic engineering technology. Taste. The improved characteristics that can be achieved by existing technologies include increased growth rate, improved nutritional value, insect resistance, disease resistance, and pest control resistance. Herbicides, low temperature resistance, extended shelf life, transportation resistance or processing convenience, etc.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	E4G03WMT	A	Warehouse Management	This course introduces the connotation of warehousing operations, the selection and setup of storage and transportation systems, key projects of warehousing management, analysis of operation management, etc. It is hoped that students can have a comprehensive understanding of warehousing operations and management and establish logistics management. detailed concept	2	A	Department of Shipping and Transportation Management	SDG4,SDG9
2023	1121	Bachelor	3	B5203IED	A	Special Topic Research	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3. Communication and expression skills	2	B	Department of Harbor and River Engineering	SDG4,SDG14,SDG15,SDG13,SDG11
2023	1112	Bachelor	2	B3B02AAI	A	Advanced Programming and Artificial Intelligence	This advanced course is designed for students in the College of Life Science who are interested in Python programming and artificial intelligence. The course content focuses on the application of data analysis and machine learning, and students who enroll in this course must have basic Python coding skills.	2	B	Department of Bioscience and Biotechnology	SDG9,SDG11,SDG17
2023	1121	Bachelor	1	B760120E	A	Tourism	By the completion of the subject, the student should be able to: - Explain the definition of tourism and describe the growth of the tourism industry; - Identify the tourist-product relationship and various tourist demands; - Understand the nature of tourism service suppliers; - Address the importance of sustainability to the development of the tourism industry; - Discuss the current issues and future development in the tourism industry.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG10,SDG11
2023	1121	Bachelor	2	E4G12J40	A	Statistics	This course is mainly aimed at cultivating students' basic concepts of statistics, so as to lay the foundation for students' ability to conduct inductive analysis, synthesis and judgment of data. It also aims to familiarize students with commonly used computer software packages in statistics, so that they can flexibly apply various skills in subsequent Relevant courses and practices.	3	A	Department of Shipping and Transportation Management	SDG4

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2023	1112	Bachelor	3	B3303U77	A	Nutrition and Feeding	The course aims to train students to master the nutritional physiology and nutritional requirements of aquaculture animals, the nutritional components and physiological functions of feeds, the nutritional value and evaluation methods of feeds; to understand the processes of food intake, digestion and absorption, and material metabolism of aquatic animals; to know the design of feed formulations principles and design methods, feed and raw material storage methods, etc.	3	A	Department of Aquaculture	SDG4,SDG12,SDG14
2023	1112	Bachelor	3	B3903649	A	Food marketing management	In order to respond to social needs and the diverse trends of industrial development, to increase students' cross-field knowledge and skills, and to enhance academic research and employment competitiveness, this course teaches students to learn professional knowledge such as food health and marketing management, focusing on cultivating students in food marketing management Expertise enables students to acquire the following knowledge and skills after studying this course, which will prepare them well for future marketing and management capabilities in related industries such as food, health, biotechnology or medicine. The vision is that through the course, students can fully construct professional knowledge in the five major aspects of the food marketing management field, and can make good use of what they have learned to actively grasp the trend development and future employment opportunities in various aspects. This course systematically explores marketing management theory and its application, emphasizing the analysis of important concepts, and using domestic and foreign examples and life experiences to explain the application of academic theories, thereby increasing students' interest in marketing issues and cultivating students to analyze and solve marketing problems. Problems of professional competence.	2	B	Department of Food Science	SDG3,SDG12,SDG4
2023	1112	Bachelor	4	B39043KB	A	Food New Product Development	The objective of this course is to introduce the development process of new food products. Provide students with the ability to evaluate the possibility, cost-effectiveness and market potential of developing new foods. Through sharing examples, students will lean the skill to developing new food products.	2	B	Department of Food Science	SDG4
2023	1112	Master	1	M31014PQ	A	Classification and investigation of ichthyoplankton	Course objectives focus on introducing students to know how used to identify ichthyoplankton using morphological characters. And provide an understanding of identifying ichthyoplankton and its applications in the fisheries sciences and related fields.	3	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1121	Bachelor	1	B6F01L6A	B	General Physics	The aims of this course are to learn the basic theories of physics. This course includes fundamental concepts about the Newton’ s mechanics, circular motion, energy and momentum, fluids, elasticity and oscillations, waves, thermodynamics and electromagnetics. It is expected the learning will build up the excellent basis for advanced studies.	3	A	Department of Marine Engineering	SDG3,SDG13,SDG15,SDG14,SDG12,SDG11,SDG9,SDG8,SDG7,SDG4,SDG6
2023	1112	Master	2	M9A02SH3	A	Special Topic on School Counseling	(A) learn about theories related to mental health, motivation, and emotions. (B) analysis of the status and development of school counseling practice. (C) recognize the relevant issues of school counseling and research findings. (D) willing to develop the school counseling strategy to promote students''''''' mental health.	2	B	Institute of Education	SDG3,SDG5,SDG4
2023	1112	Doctorate	1	D660108K	A	Applied Numerical Methods for Engineers	This course focuses on the numerical method and its use in the analysis of fluid dynamics, heat and mass transfer, and other related processes that occur in engineering equipment, in the natural environment, and in living organisms problems. Issues of accuracy, stability and convergence are addressed. Techniques for the solution of linear algebraic systems are presented for both structured and unstructured discretizations. The course involves hands-on code development as well as use of a commercial code	3	B	Department of Marine Engineering	SDG9,SDG12
2023	1121	Bachelor	2	B7602TUF	A	Tourism and Transport Managemant	This course is the introduction to the services provided in the travel industry. The marketing strategies and ethic issue in the travel business will be discussed in class. Technical terms and the Global reservation system will also be introduced to students. The participants are expected to equip the basic skills for the travel business.	3	A	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG11
2023	1121	Bachelor	1	B7601CAS	A	Introduction to Marine Affairs	Marine affairs is an inter-disciplinary field. Taiwan is surrounded by the ocean and the national development, identity building and foreign affairs are influenced by the sea. The formulation and implementation of domestic marine policy and laws are tied with global marine governance. With this in mind, it is important to encourage students to understand the meanings, categories and practices of marine affairs. The main objectives of this course are as follows. 1. Students will understand the field of marine affairs in general. 2. This course will develop students with the capacity and international perspectives in the management of the sea. 3. Students will be able to grasp the appropriate attitude and principles, workable knowledge and management strategies to contribute to sustainable development of marine environments.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG11,SDG16,SDG17
2023	1112	Bachelor	2	B9502Y2H	A	Instructional Internship for Methods of Merchant and Management Education	1. To understand the Merchant and Management Education subject''s current teaching activities and classroom management practices. 2. Observe and observe the teaching of related subjects and analyze the procedures and steps of teaching activities. 3. Use teaching methods and strategies flexibly to design lesson plans. 4. Validate teaching theory or theories through simulated teaching experiences. 5. Try to establish their teaching model through self-reflection and joint discussion.	2	H	Teacher Education Center	SDG4
2023	1112	Bachelor	1	E4A01K2B	A	Ship Handling	This course complies with the International Maritime Organization (IMO) Model Course 7.03-1.8.1 Ship maneouvring and Handling regulations; including: 1.8.1.1 Turning circles and stopping distance. 1.8.1.2 Effect of wind and current on ship handling. 1.8. 1.3 Maneouvres for rescue of person overboard. 1.8.1.4 Squat, shallow water and similar effects. 1.8.1.5 Proper procedures for anchoring and mooring. Taking into account the teaching of relevant necessary knowledge or skills, the following teaching content is arranged. To enable students to understand the basic attachments and control equipment of the ship, so that the ship operator can use the ship's own equipment, characteristics or other means to conduct necessary observations and analyzes for safe navigation under the current external environmental conditions for the purpose of maintaining or changing the ship's motion state , judgment, command, implementation, etc.	2	A	Department of Merchant Marine	SDG1,SDG8,SDG5,SDG4
2023	1112	Bachelor	2	B5202088	B	Engineering Mathematics (Ⅱ)	Mathematics can be said to be a common language in different engineering fields. With the help of mathematical modeling of physical phenomena, mathematical problems can be solved to gain a glimpse into the essence of physical problems, demonstrating that mathematics is an important tool for academic research or engineering practice. Therefore, the purpose of this course is to train students to become familiar with mathematical thinking methods. In addition to emphasizing the solution of mathematical problems, it also takes into account the importance of mathematical modeling of physical phenomena and interpretation of physical phenomena.	3	A	Department of Harbor and River Engineering	SDG4,SDG11,SDG9
2023	1112	Bachelor	3	B3903A30	A	Food Products Technology Lab. (Ⅱ)	The purpose of this course is to provide students with practical experience and to corroborate the academic theories taught in class. And observe the chemical and physical changes of raw materials during processing.	2	B	Department of Food Science	SDG4,SDG11,SDG12,SDG9
2023	1112	Bachelor	3	B39031JO	A	Processed Meats	Recognize knowledge of Meat Science	3	B	Department of Food Science	SDG4

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2023	1112	Bachelor	2	B3302289	A	Aquatic Botany	1. Guide students to understand algae: Teachers and external speakers introduce various algae that can be found in the seas of my country and the world, and guide students to understand the important position of algae in the ecosystem and daily life. 2. Guide students to discover their connection with algae: Teachers guide students to inquire about the use of various algae, so that students can understand the contribution of algae to people's daily life and industry. 3. Make students spontaneously care about the information of algae-related industries: Through the course, students can start to pay attention to and think about the current situation and possible future changes of China's algae-related industries after learning about algae, and enhance students' concern for algae-related industries. and understanding	3	A	Department of Aquaculture	SDG1,SDG4,SDG6,SDG17,SDG16,SDG14,SDG13,SDG12,SDG11,SDG9,SDG8,SDG5,SDG3,SDG2
2023	1112	Bachelor	2	B33022IF	B	Aquaculture Lab. (II)	In conjunction with aquaculture theory, scholars are trained to have on-site breeding operation capabilities, so that they can apply it skillfully on the spot and avoid being too ambitious and short-handed.	1	A	Department of Aquaculture	SDG1,SDG3,SDG4,SDG2,SDG5,SDG8,SDG10,SDG12,SDG17,SDG14,SDG11,SDG9,SDG6
2023	1121	Master	1	M66014N4	A	Technology development and application of marine engineering and offshore wind power industry	英Marine Engineering can be flexibly applied to various industries, and the government''s goal of developing wind farm capacity up to 6.9GW in 2025 is in full swing. The 9GW capacity allocation for block development in 2030 is also underway. On the other hand, floating wind farm technology is gradually commercialized and developed rapidly internationally. This course mainly includes technical issues and industrial information involved in the full life cycle of marine engineering and offshore wind farms. It expects that students will not only deeply realize the application of marine engineering disciplines, such as marine engineering practice, marine engineering management, etc., but also learn the professional knowledge of marine engineering and offshore wind farm industry, as well as develop a macro career vision	3	B	Department of Marine Engineering	SDG7,SDG13,SDG14,SDG9
2023	1121	Bachelor	1	B7201083	A	Engineering Graphics	Engineering drawings are the primary communication tools for engineers in the industry. This course is based on the CNS national standards. Teaching the engineering projection principle and view representation method, Enable students to have the ability to map and draw.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	4	E4S04ID0	A	Programming Expert Systems	Combining PROLOG and expert systems, emphasizing practical technology and PROLOG implementation.	4	B	Department of Shipping and Transportation Management	SDG9
2023	1112	Bachelor	1	B7701I01	A	International Trade Practice	1.To introduce customary practices, professional terms, and regulatory framework in field of international transactions; 2.To systematically integrate the international conventions, terms, and regulations; 3.To possess basic knowledge of international trade practice and abilities to effectively manage cross-border trade; 4. Seamlessly connect with the demands of international trade talents in the job markets	3	A	Bachelor Degree Program in Ocean Business Management	SDG8,SDG12,SDG17
2023	1112	Bachelor	4	B76041WO	A	Intern Practice III	Implement on-campus internship teaching to enable students to understand the tourism, hospitality and marine leisure service industries, gain relevant practical experience, and develop professional management capabilities.	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG17
2023	1121	Bachelor	1	B7711M97	A	Calculus	This course is a one-year course, divided into two semesters, and is taught to first-year undergraduate students. This course aims to enable students to learn the basic knowledge of differential and integral calculus, develop their application abilities in formulating, solving and interpreting problems, and introduce the basic theory of calculus and its various applications in business, economics, and social sciences.	2	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1121	Bachelor	4	B77044CX	A	Short Term Internship Ⅲ	Enable students to apply what they learn in class to workplace practice	2	B	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	1	B5301V75	A	Discrete Mathematics	To demonstrate to students how mathematics can be applied to solve nontrivial real-life problems. To gain more experience with mathematical thinking, arguments and proof techniques, which are essential in reasoning about computation. To learn about a number of different discrete structures (e.g., sets, relations, graphs, trees, etc.) that provide the mathematical formalizations for many computational problems. To hope that students will not only learn some powerful mathematical tools but also develop their ability to perceive, to formulate, and to solve mathematical problems. To provide a gateway to more advanced courses in any computer science courses, including data structures, algorithm, database automata theory, computer security, etc	3	B	Department of Electrical Engineering	SDG11,SDG17
2023	1112	Master	1	T4601885	A	Seminar on Insurance Law	1. Students should be able to correctly state the relevant provisions, basic theory and practice or doctrinal disputes of my country’ s current insurance law. discussion. 2. When students encounter relevant factual statements, they should be able to confirm the legal disputes caused by the facts and report them. Describe the relevant laws and principles, and explain why the laws and principles can be applied to the facts, and then solve the legal problem. legal dispute	2	B	Institute of the Law of the Sea	SDG4,SDG17,SDG12,SDG8
2023	1112	Bachelor	1	B5201U27	B	Statics	This course is based on statics. It mainly discusses the forces and stability of objects under static equilibrium, with an emphasis on the analysis of forces. Since it is a basic subject, the teaching method is mainly classroom lectures, supplemented by students' after-class exercises in the textbook to deepen students' understanding of mechanical concepts. The design goal of this course is to enrich students' professional knowledge in basic mechanics so that it can be connected with the second-year material mechanics, fluid mechanics and third-year structural studies courses, and at the same time, they can understand the simple application of mechanics in engineering. . We hope that students can lay a good foundation for the concept of mechanics through this course.	3	A	Department of Harbor and River Engineering	SDG4
2023	1112	Bachelor	1	E4A01C96	B	Oceanography	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.1.7 Meteorology. It takes into account the teaching of relevant necessary knowledge or skills, arranges the teaching content, and enables students to understand the physics and chemistry of seawater. There is a general understanding of the characteristics, seabed geology, topography, currents, waves, tides, sea ice, etc. as a basis for more in-depth courses in the future.	2	A	Department of Merchant Marine	SDG13
2023	1112	Bachelor	1	B5221L66	B	General Physics	Helping students build the analytical and quantitative skills and confidence needed to apply physics in problem solving for science and engineering. Helping students develop an appreciation of physical universe at its most fundamental level.	2	A	Department of Harbor and River Engineering	SDG4
2023	1112	Bachelor	1	B5221M97	A	Calculus	It is hoped that students can learn how to use mathematical language to think and build their ability to analyze and solve problems from the complete basic mathematical knowledge of calculus.	3	A	Department of Harbor and River Engineering	SDG4

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2023	1112	Bachelor	1	B5201M12	A	Practice of Surveying (Ⅱ)	Through the explanation of the basic principles and calculation methods of surveying, as well as the introduction of the structure and operation of surveying instruments, students can understand the practical application relationship of surveying to civil engineering, water conservancy and river and sea engineering, and be familiar with the surveying operation methods and procedures, so as to Combined with actual surveying operations; it also introduces new concepts, new technologies and new instruments in surveying and mapping, allowing students to understand the development trends of today's surveying and mapping technology, clarify the basic principles and calculation methods of surveying, and introduce the structure, operation and calibration procedures of surveying instruments, through Through the operation and calibration exercises of various measuring instruments, as well as the internship of various surveying methods and procedures related to civil engineering, water conservancy and river and sea engineering, students can fully understand the practical work of surveying and be better able to use this surveying practice in the future. Operational skills are applied in professional services	1	A	Department of Harbor and River Engineering	SDG3,SDG11,SDG9
2023	1112	Bachelor	1	B5201M12	B	Practice of Surveying (Ⅱ)	Through the explanation of the basic principles and calculation methods of surveying, as well as the introduction of the structure and operation of surveying instruments, students can understand the practical application relationship of surveying to civil engineering, water conservancy and river and sea engineering, and be familiar with the surveying operation methods and procedures, so as to Combined with actual surveying operations; it also introduces new concepts, new technologies and new instruments in surveying and mapping, allowing students to understand the development trends of today's surveying and mapping technology, clarify the basic principles and calculation methods of surveying, and introduce the structure, operation and calibration procedures of surveying instruments, through Through the operation and calibration exercises of various measuring instruments, as well as the internship of various surveying methods and procedures related to civil engineering, water conservancy and river and sea engineering, students can fully understand the practical work of surveying and be better able to use this surveying practice in the future. Operational skills are applied in professional services	1	A	Department of Harbor and River Engineering	SDG3,SDG11,SDG9
2023	1112	Bachelor	3	B3904A19	A	Food Sanitation and Safety	Everyone needs to eat, and eating healthily is the focus of the diet. In addition to choosing fresh and nutritious food raw materials, they may be contaminated with food poisoning bacteria, toxic and other unclean substances, so they must be properly washed and cooked to protect the eater. of health. This course aims to impart knowledge related to food safety and hygiene, allowing students to pay attention to their diet in daily life to maintain physical and mental health. It also teaches knowledge about safety and hygiene operations in food preparation and catering venues as a reference for workplace management.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3903A20	A	Food Plant Management	The purpose of this course is to provide students with the basic concepts of food factory operation and management. The course mainly introduces the activities of food factories and methods of decision-making analysis. The course covers production planning, organization, control, coordination, food business departments and employee management. Specifically, the main purpose of this course is to train students to: -Understand the basic concepts of business management and their application in food companies. -Be able to query business management literature and apply it to examples	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	E4S03AI0	A	Artificial Intelligence	Introduces the basic concepts of artificial intelligence, including basic principles and applications of expert systems, neural networks, fuzzy systems, genetic algorithms, etc.	4	B	Department of Shipping and Transportation Management	SDG9
2023	1112	Bachelor	2	E4G22J40	A	Statistics	This course is mainly aimed at cultivating students' basic concepts of statistics, so as to lay the foundation for students' ability to conduct inductive analysis, synthesis and judgment of data. It also aims to familiarize students with commonly used computer software packages in statistics, so that they can flexibly apply various skills in subsequent Relevant courses and practices.	3	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	4	B3904R68	A	Instrumental Analysis (Ⅱ)	The aim of the course is to introduce the students to the main methods of instrumental analysis. The students will gain an understanding of mass spectroscopy and chromatographic separation.	2	B	Department of Food Science	SDG4
2023	1121	Bachelor	1	B6F01L6A	A	General Physics	The aims of this course are to learn the basic theories of physics. This course includes fundamental concepts about the Newton’ s mechanics, circular motion, energy and momentum, fluids, elasticity and oscillations, waves, thermodynamics and electromagnetics. It is expected the learning will build up the excellent basis for advanced studies.	3	A	Department of Marine Engineering	SDG3,SDG7,SDG15,SDG14,SDG13,SDG12,SDG11,SDG9,SDG4,SDG6
2023	1121	Bachelor	1	B6F01083	B	Engineering Graphics	This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level. (1). Let students know the basic Engineering Graphics (2). Let students know the application of Engineering Graphics.	1	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	4	B76044LH	A	Coastal Community Empowerment	This course will introduce coastal community empowerment from the perspective of social economy and social innovation. Different from capitalist economy, social economy emphasizes on ethical decision in consideration of other people, engaged communities, and environment. Therefore, social economy can be an alternative way in responding challenges out of global capitalism and bring new insights of sustaninable development in Taiwan. 1. Students will understand the theories and practices of social economy from the global perspective and current Taiwan. 2. This course will provide students with cases and methods to do field work and turn their investigation into workable projects in responding to common needs or problems. 3. This course encourages students to design and run the project by teamwork in order to facilitate the capability of cooperation and communication	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG8,SDG12,SDG17,SDG16,SDG11,SDG10
2023	1121	Bachelor	3	B7703Q94	A	Management Information Systems	Many new IT technologies such as artificial intelligence, Internet of Things, big data, financial technology, and blockchain have entered the commercial market. From the traditional industrial revolution to now, all walks of life must integrate information. Traditional industries must face the challenges of new generation technologies. Challenge to transform. How students should make good use of these technologies is an important issue. In view of this, the teaching objectives of this course include: (1) Learn the important discussions of each school of management information system. (2) Study the development of IT application in management information systems. (3) Learn the planning and software and hardware environment of management information systems. (4) Practical analysis and design	3	A	Bachelor Degree Program in Ocean Business Management	SDG9

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2023	1112	Bachelor	1	E4Q01PST	B	Personal Survival Techniques	This course complies with the International Maritime Organization (IMO) Model Course7.03-3.4 Operate LIFE-SAVING In accordance with the standards of APPLIANCES, taking into account the teaching of relevant necessary knowledge or skills, the following teaching contents are arranged: The course is revised in accordance with the 1995 International Convention for the Safety of Life at Sea and the 1978 STCW International Convention. It teaches students to recognize and understand the limitations of the marine environment and its possible risks, and at the same time, they are familiar with various marine Professional knowledge and skills for survival, and then master and control how to effectively avoid personal situations under abnormal ship conditions. Avoid dangers and cope with various difficulties in dangers to achieve the purpose of survival.	2	A	Department of Marine Engineering	SDG4,SDG11,SDG14
2023	1121	Bachelor	1	B6F01M97	A	Calculus I	The main objective of Calculus is for students to learn the basics of the calculus of functions of single and multi-variable. They will study transcendental functions, limits, differentiation and an introduction to the Riemann integral, culminating with the Fundamental Theorem of Calculus. They will also apply these ideas to a wide range of problems that include the equations of motion, related rates, curve sketching and optimization. The students should be able to interpret the concepts of Calculus algeb	3	A	Department of Marine Engineering	SDG1,SDG4,SDG10,SDG9,SDG8
2023	1121	Bachelor	2	B77023XL	A	Presentation Skills and Etiquette Ⅰ	This course guides students through the three major steps of presentation production such as pre-conception (Content), presentation production (Design) and oral expression (Delivery) as an extension of basic concepts, and incorporates elements of stage manners and etiquette (Etiquette). , integrating presentation skills and body posture. It is expected that when students give various presentations, they will not only show rich presentation content in the oral expression part, but also be able to use appropriate style and manners to show students' self-confidence and diverse creativity, and learn to master the essence of presentation production. Improve presentation skills and abilities through internal logical thinking and external posture and achieve the following goals: 1. Improve the ability to produce and write presentations: through classroom sharing, the structure and basics of presentation content will be clarified to increase the persuasiveness and influence of presentations. 2. Exercise communication and expression skills: Through classroom discussions and submission of written reports, combined with the practice of presentations, students can develop their ability to communicate and express effectively. 3. Increase the presentation of typhoon and manners: Plan personal presentations and sharing on stage in class, and combine them with beauty training (attire, gestures, standing and sitting postures...etc.) to train students' courage and stability on stage. Spend. 4. Cultivate innovation and practical abilities: encourage students to be brave in innovation and try and verify in many ways, complete the presentation of each brief and accumulate successful experience and self-confidence. 5. Establish sustainable learning habits: Teach students to proactively seek knowledge and solutions based on practical needs, learn by themselves, and try concrete practices.	1	B	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1112	Bachelor	1	B6F01NNY	A	Service-Learning Program-Campus Service(Ⅱ)	To enhance students'' concept of serving the crowd and giving back to the society, and to personally experience "helping others is the foundation of happiness".	0	T	Department of Marine Engineering	SDG3,SDG11,SDG12
2023	1112	Bachelor	1	B6C21M97	A	Calculus	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics	3	A	Department of Communications Navigation and Control Engineering	SDG4
2023	1112	Bachelor	1	B6F01M9N	A	Calculus II	The main objective of Calculus is for students to learn the basics of the calculus of functions of one variable. They will study transcendental functions, limits, differentiation and an introduction to the Riemann integral, culminating with the Fundamental Theorem of Calculus. They will also apply these ideas to a wide range of problems that include the equations of motion, related rates, curve sketching and optimization. The students should be able to interpret the concepts of Calculus algebraically, gra	3	A	Department of Marine Engineering	SDG1,SDG4
2023	1121	Bachelor	2	B320260D	A	Organic Chemistry Lab(I)	This laboratory subject is designed to familiarize the students with the application of organic chemistry. The preparation skills of the students are to be developed by performing different types of organic techniques.	1	A	Department of Food Science	SDG1,SDG12,SDG6,SDG3,SDG4
2023	1112	Bachelor	4	B39042OV	A	Introduction Nutritional Supplement	Introduce the current situation of health care in our country, and then explain the situation in other countries in detail, so that students can consistently understand the development and management situation in various countries around the world.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B9500Y51	A	Internship	1. To provide guidelines for the focus and methods of teaching teachers and students to be instructed by intern guidance professors at the university. 2. Provide teachers and students with guidance plans for learning about educational practice courses. 3. Contribute to the communication between teacher training universities and educational practice institutions. 4. Carry out effective implementation of educational practice courses.	4	H	Teacher Education Center	SDG4,SDG11
2023	1112	Doctorate	1	D8601R7A	A	Special Topic of Instrumental Analysis	Teach students a preliminary understanding of the principles of instruments commonly used in geochemistry, so that they can be applied in local chemical experimental analysis in the future, which will help students gain employment skills. The class includes a 1-credit internship. In the internship class, other time will be used to arrange for students to learn instrument operation and visit outside the school. Therefore, on-stage reports and written reports are required.	3	B	Institute of Earth Sciences	SDG4,SDG9
2023	1121	Bachelor	4	B770424H	A	Internship Ⅰ	Enable students to learn by doing and understand their own deficiencies in professional knowledge and interpersonal coping	9	B	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1121	Bachelor	1	B92B81IZ	B	Sailing(Beginner)	The main goal of this course is to promote sailing, provide students with opportunities to experience sailing, encourage students to participate in sailing activities and get in touch with the ocean, thereby cultivating diverse ocean knowledge, enhancing personal care for natural resources, developing a concept of respect for the ocean, and enhancing Taiwan's waters. Quality of leisure and recreation activities. ***Skills practice is required on weekends and holidays. Students who cannot meet the schedule should not take this course.	0	A	Office of Physical Education	SDG4
2023	1121	Bachelor	1	B92A81IZ	A	Sailing(Beginner)	The main goal of this course is to promote sailing, provide students with opportunities to experience sailing, encourage students to participate in sailing activities and get in touch with the ocean, thereby cultivating diverse ocean knowledge, enhancing personal care for natural resources, developing a concept of respect for the ocean, and enhancing Taiwan's waters. Quality of leisure and recreation activities. ***Skills practice is required on weekends and holidays. Students who cannot meet the schedule should not take this course.	0	A	Office of Physical Education	SDG4
2023	1112	Bachelor	1	B9501Y3U	A	Special Topic on Educational Issues	1. understaning current education issues 2. exploring the significance of various educational issues 3. designing curriculum on educational issues	2	H	Teacher Education Center	SDG3,SDG4,SDG5,SDG10,SDG16,SDG14

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2023	1112	Bachelor	1	B6F01070	A	Engineering Materials	The aims of this course are to learn the bonding and crystal structures of materials, to understand phase transformation of metals during melting/solidification, then to familiarize with metallic iron-carbon phase diagrams and mechanical properties of a variety of alloys. On the other hand, learners will catch the knowledge of processing of engineering ceramics and the structural characteristics in various applications. Therefore, students will fully understand the importance of material structures in engineering.	3	A	Department of Marine Engineering	SDG3,SDG7,SDG9,SDG17,SDG15,SDG14,SDG13,SDG12,SDG11
2023	1112	Master	1	M3201U75	A	Nutritional Biochemistry	Provide students with an understanding of digestion and absorption, metabolism of fats, proteins and carbohydrates, and utilization of nutrients from consumption to digestion, absorption, distribution and cellular metabolism.	3	B	Department of Food Science	SDG1,SDG4,SDG2
2023	1121	Bachelor	2	B3B02D4G	A	Lab. Practical of Marine Biodiversity (I)	Maximum number of students taking the course: 25 Course time: 06/19-6/24 Meeting time: 0900 in the morning on June 19th Meeting place: Room 506, Second Building, Institute of Marine Biology Class location: A Indoor Course: Room 506, Marine Science Museum/Institute of Marine Biology B Field Course: Ecological Survey of the Northeastern Corner (or Penghu) Sea Area Course fees: Study and miscellaneous expenses are NT 1,500 per person (including meals, materials, equipment rental, etc.) Accommodation is at your own expense If you choose Penghu waters, the boat transportation fee will be increased by 1,500 yuan. There is a problem student in this course Please contact Mr. Chen Yixiong (0928152503) Ext. 5320 The teaching goal of this course is to train students to understand the diversity of various water ecosystems. And learn basic techniques for ecological surveys in the wild, as well as species identification and specimen preparation.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG14
2023	1112	Bachelor	3	B39032OT	A	Non-Thermal Technologies	Enable students to understand the basic non-thermal food processing concepts, principles and techniques to the acknowledging importance of food processing.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B5203U11	B	Reinforced Concrete	Introduce the mechanical properties of the combination of steel bars and concrete, understand the failure behavior and analysis methods of reinforced concrete components, and the application of reinforced concrete design specifications.	3	A	Department of Harbor and River Engineering	SDG9,SDG11
2023	1112	Bachelor	3	B39040UY	A	Fishery Food Processing	This course enables students to acquire the characteristics and freshness treatment methods of aquatic raw materials; learn the basic principles and methods related to the manufacturing of various processed products; and understand the current production and marketing status and trends of the aquatic product processing industry.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3903U82	A	Nutrition	This course will introduce the basic principles of nutrients in food and the physiological metabolism of nutrients in the body.	3	A	Department of Food Science	SDG4
2023	1112	Master	2	M3222I4A	C	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG8,SDG9
2023	1112	Bachelor	3	E4S23661	A	Operation Research	This course mainly teaches students to apply scientific methods, techniques and tools to engage in research systems, to find mathematical models or other models, to study various activities in the system and to evaluate various proposed feasible solutions, and to find out when making decisions. The best answer to take. At the same time, students can develop basic concepts in various homework research to cultivate students' analysis and judgment abilities; they can also become familiar with commonly used software for homework research, so that they can flexibly apply the learned skills to subsequent related courses and practices.	2	A	Department of Shipping and Transportation Management	SDG9
2023	1112	Bachelor	3	B3903A26	A	Food Chemistry (Ⅱ)	Describes the ingredients of meat, eggs, dairy products, fruits and vegetables, cereals and natural pigments by food category, their unique chemical properties, the relationship between chemical, physiological and biochemical changes and functional properties during storage and processing, and food quality and safety. From raw materials, processing to chemical and biochemical changes in raw materials, processing and storage and their impact on the functional properties of food, and to stimulate students' ability to infer from what is known.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3903I38	A	Seminar	1. Give course students training to collect, read and digest academic journal documents. 2. Cultivate the motivation and dialectical attitude to actively participate in academic activities through on-site discussions. 3. Understand the achievements of other academic units and the latest academic development directions.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B39031BU	A	Beverage Preparation and Management	It enables students to understand the characteristics and management of various beverage raw materials, strengthens students' skills in applying different raw materials to beverage products, instills students with the correct ability to drink beverages, enables practitioners to have a professional attitude and professional quality attitude, and strengthens the ability to think reversely.	2	B	Department of Food Science	SDG4,SDG12
2023	1112	Bachelor	4	B39041IA	A	Molecular Gastronomy	The purpose of this course is to dispel the general public's myths about food cooking from a scientific perspective, and to help students fully understand the physical and chemical properties of food ingredient molecules and their suitability for use in cooking or processed products. It can also cultivate and Stimulate students' taste for creative cuisine and innovative products.	3	B	Department of Food Science	SDG3,SDG4,SDG9
2023	1112	Bachelor	3	B39030EO	A	Undergraduate Seminar (Ⅱ)	Enhance students' extracurricular knowledge in different fields and verify the theories they have learned.	1	B	Department of Food Science	SDG4
2023	1112	Master	1	M3201R6G	A	Advanced Enzyme Engineering	Example explanations are used to enable students to have a deeper understanding of enzyme engineering.	3	B	Department of Food Science	SDG4
2023	1112	Master	2	M3222I3T	A	Seminar	Training of gradute student, literature search, survey, integrate, and present ability in different issue, as well as participate interaction each other.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B3904A53	A	Microbiology of Foods Lab.	The goal of this course is to cultivate and train students to have the ability to independently analyze food-related microorganisms through practical operations.	2	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B3904A53	B	Microbiology of Foods Lab.	To cultivate students who have completed this course to have the initial ability to independently conduct basic food-related microbiology experiments.	2	A	Department of Food Science	SDG4
2023	1112	Master	1	M3201J4B	A	Statistical data analysis	The teaching purpose of this course is to let students understand how to use statistical software to solve biostatistical problems.	2	B	Department of Food Science	SDG4

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2023	1112	Bachelor	2	B3302472	A	Ecology	Ecology is a basic science. The objective is to allow students in various fields to learn and know the basic principles of ecology, understand interactive relation between living organisms and ecological environment. This course uses systematic description to introduce a variety of ecological connotation, principles and experimental methods, supplemented with the topical subject of "global climate change". Through a series of ecological examples, this course allows students to understand the changes in the earth environment and coping strategies in the future, thus achieving sustainable use of ecosystem resources.	3	A	Department of Aquaculture	SDG4,SDG14,SDG15,SDG13,SDG6,SDG7
2023	1112	Bachelor	2	B6A02690	A	Mechanics of Materials	To enable students to understand the basic concepts and analysis methods in materials mechanics, and to learn how to analyze the force distribution, stress-strain state, and structural deformation within the material when the mechanical structure is acted upon by external forces.	3	A	Department of Marine Engineering	SDG4,SDG9,SDG11,SDG12,SDG10,SDG8,SDG7
2023	1112	Bachelor	2	B6A02D05	A	Security Duty	This Course is based on the "International Shipping and Port Facility Security Code (ISPS Code)" in XI-2 Special measures to enhance maritime security in the International Convention for the Safety of Life at Sea (SOLAS)and STCW A- VI/5. enabling students to know The ISPS CODE and duty.	2	B	Department of Marine Engineering	SDG13,SDG14
2023	1112	Bachelor	3	B6A0322B	A	Research in Special Topics (IV)	This course will let the students be trained with nanotechnology and electro-optic trnasfer techniques for connecting theories and operations.	1	B	Department of Marine Engineering	SDG7,SDG9,SDG11,SDG12
2023	1112	Doctorate	1	D89014QN	A	Multi-component alloys	This course introduces the basic principles and recent development of multi-component alloys. Multi-component alloys have developed into two categories: high-entropy alloys and metallic glasses according to their structural types. The unique effects of high-entropy alloys include high entropy effect, slow diffusion effect, severe lattice distortion effect, and cocktail effect, attracting scholars to invest. Metallic glass also has its special application directions due to its amorphous properties. In addition, thin film formation of multi-component alloys is also a recent development direction. I hope to use the professors in this course to establish students' basic concepts and techniques of multi-element alloys, and to understand practical applications through thesis reading.	3	B	Department of Optoelectronics and Materials Technology	SDG9
2023	1112	Bachelor	2	B6A0222D	A	Research in Special Topics (Ⅱ)	This course will let the students be trained with nanotechnology, electromagnetic new energy techniques for connecting theories and operations.	1	B	Department of Marine Engineering	SDG7,SDG9,SDG11,SDG12
2023	1112	Bachelor	2	B9D023RA	A	English Conversation (Intermediate)	World English is a course for all university students who will be required, in their professional life, to travel internationally and interact with speakers of English; especially, for those who may choose to work in the tourism industry. The course will cover a series of real-life situations that professionals would encounter while traveling for their jobs. These every-day situations include not only social interactions but the practical transactions as well that all international travelers have to deal with while making their way in a global economy.	2	B	Institute of Applied English	SDG1,SDG8,SDG4,SDG3,SDG11,SDG14,SDG16,SDG13
2023	1112	Bachelor	1	B6F010Z3	A	Fire Prevention and Basic Fire Fighting	Fitting in with request of support level of This curriculum fits with table A-VI/1, STCW 78 as amendment management ability in demand of marine engineering. The course contents are basic principle of fire fighting, kinds of fire extinguisher and its agents, knowledge and responsibility of crews.	1	B	Department of Marine Engineering	SDG3,SDG11,SDG14
2023	1121	Bachelor	1	B92G8G07	G	Tennis (Beginner)	1. To enhance the fundamental skills and knowledge of tennis. 2. To encourage each student to pursue tennis as a life-time leisure activity.	0	A	Office of Physical Education	SDG10
2023	1112	Master	1	M04013YK	A	Underwater Cultural Heritage, Policyand Law	Since the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage was adopted, the legal issues arising from the protection of underwater cultural heritage have been attracting increasing attention. The island of Taiwan has been ruled by many countries, such as Netherlands, Portugal, Japan, the United States and other sea powers states, and its surrounding waters contain important maritime traffic junctions. As a result, many underwater cultural heritage sites are scattered across large areas of the sea bed. Taiwan should take appropriate measures to protect underwater cultural heritage in its surrounding waters. While the protection of underwater cultural heritage is one of basic national marine policy in Taiwan, the lack of relevant specialists is believed to be a problem. This course is designed to provide the theoretical and practical knowledge regarding the protection of underwater cultural heritage in order to train more specialists to become experts in this	2	B	Master Degree Program in Ocean Policy	SDG4,SDG6,SDG14,SDG17,SDG16,SDG11
2023	1112	Bachelor	1	B3101547	A	Geo-Navigation	Base on STCW 1978/95/2010 Convention standard of competence for navigator： Consider basic teaching in navigation so that students know at least： 1.Use terrestrial information to determine ship position. 2.Use nautical chart and publications to set ship routing. 3.Use and consider navigational plan in confined waters. 4.Use terrestrial observations to judge accuracy of position. 5.Use electronic spreadsheet to Solve the sailing. 6.Practical plotting nautical operations and charts	2	B	Department of Environmental Biology and Fisheries Science	SDG11,SDG14
2023	1112	Bachelor	2	B93001IT	A	All-out Defense Education Military Training-Civil Defense	1. To enable students to understand the importance of national consciousness and the issue of our country's national identity. 2. Make students realize the importance and benefits of national defense. 3. To enable students to understand the relationship between economic development and national security, as well as the threats to my country's economic security. 4. Enable students to understand that culture is the basis for national identity, and the country's competitiveness can be enhanced through cultural soft power. 5. Enable students to understand the non-traditional security threats faced by our country, Asia-Pacific security, cross-strait situations, as well as the current situation and the relevance of national defense education. relation. 6. Make students understand that the integration of military and civilians can achieve the goal of all-people national defense and implement the actions and results of all-people national defense. 7. Enable students to understand the rules of saluting, responding to salutes, titles, clothing and marching of soldiers, as well as the importance and regulations of guard duties. 8. Enable students to understand the significance and shaping basis of military discipline education, and have a complete understanding of the national military grievance system. 9. Enable students to understand the basic concepts of military law education, including the purpose and basic concepts of military law, the punishment law of the army, navy and air force, and the criminal law of the army, navy and air force etc., and gain an understanding of military justice law, military legal services, gender equality and sexual harassment prevention; at the same time, analyze military law cases Analysis and introduction, leading students to behave appropriately. 10. Enable students to understand the relationship between military discipline and national combat power, the essential requirements of military discipline, and understand the purpose and teaching practices of military law education, and	2	B	the Student Affairs	SDG13,SDG14,SDG15

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Bachelor	1	B9502YI1	A	Technology for Behavior Change	1. Understanding the Implications and Ethics of Behavior Change 2. Understand the relevant theories of behavioral intervention 3. Understand the principles and strategies of behavior change technology 4. Plan and implement a behavior change program 5. Exploring the Application of Behavior Change Technology in Education	2	H	Teacher Education Center	SDG4
2023	1121	Doctorate	1	D3B010G9	A	Developmental Biology	This course introduces concepts and commonly used techniques of Developmental Biology. The content covers mechanisms of early development, body plan formation, and organ development of different invertebrate and vertebrate animal models.	3	B	Department of Bioscience and Biotechnology	SDG4
2023	1121	Doctorate	2	D3B12I38	A	Seminar	Training doctoral students in biological sciences to have the ability to read international papers	1	A	Department of Bioscience and Biotechnology	SDG4
2023	1112	Bachelor	3	B3903277	A	Marine Biochemistry (I)	To enable students to have a deeper understanding of the basic biochemical characteristics of aquatic animal muscles and the changes in characteristics during storage, freezing, frozen storage and other processing processes	2	A	Department of Food Science	SDG4
2023	1112	Master	1	M3201917	A	Food Toxicology (Ⅱ)	To enable students to understand the diversity of poisons and related toxicological effects	3	B	Department of Food Science	SDG4
2023	1112	Master	1	M3221I3L	D	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M3201A15	A	Sensory Evaluation	Introduce the principles, methods and applications of food evaluation, so that students can understand the establishment and key elements of the evaluation system, various evaluation methods used in laboratory research and industry development and analysis of the functional properties of products, etc.	3	B	Department of Food Science	SDG4
2023	1112	Master	2	M3222I3T	B	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B390315N	A	Science and Technology of Chocolate Processing	Understand the types, structure and ingredients of cocoa beans and their importance, explain the processing technology of chocolate and its related products, explain the physical and chemical changes during product processing, so that students can apply relevant concepts to maintain the quality of raw materials and prevent quality deterioration, and then Create new products.	2	B	Department of Food Science	SDG3,SDG12
2023	1112	Master	1	M3221I3T	B	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M3221I3L	A	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4,SDG9
2023	1112	Master	2	M3222I3L	A	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4,SDG9
2023	1112	Master	1	M3221I3T	A	Seminar	Training of gradute student, literature search, survey, integrate, and present ability in different issue, as well as participate interaction each other.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M3221I3L	B	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	2	M3222I3L	B	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M32011IB	A	Advanced Fruits and Vegetables Processing	The purpose of this course is to enable students to fully understand the characteristics of traditional food fruits and vegetables and the principles and techniques of their processing, and to introduce novel vegetable and fruit processing technologies. On the one hand, it promotes the promotion of exquisitely processed agricultural products, with a view to creating agricultural products with high added value and beneficial to the human body.	3	B	Department of Food Science	SDG4
2023	1112	Master	1	M32013HI	A	Immunopharmacology	Objective is to provide students with an understanding of how immune-active drugs and natural substances act on the immune system and to improve organizational and logical thinking skills through lectures, discussions, and paper reading.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	4	B39044PK	A	Food Fermentation Process Engineering	Student will understand the methods and techniques of fermentation process, the development process of fermentation product in biotech industry and know the laws and regulations on health food in Taiwan.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	1	E4A01PST	B	Personal Survival Techniques	Based on the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliance specifications, 7.03-3.8 Contribute to Safety of Personnel and Ship and refer to Model Course 1.19 Proficiency in Personal Survival Techniques, 1.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats, as well as STCW (1978, as amended in 2010, in Regulation VI/1 and VI/2) convention with the latest amended relevant contents of LSA code and SOLAS convention, this course takes the necessary knowledge and skills into account to teach students to understand the limitations of the marine environment and its possible risks, as well as to be proficiency in personal survival techniques at sea. In addition, it is also important to let the students know how the survivor at sea could control and deal with a varied of situation in distress, and then effectively avoid the occurrence of danger before rescuing, since the ship was in distress.	2	A	Department of Merchant Marine	SDG3,SDG17,SDG4
2023	1112	Bachelor	2	B6A0217X	A	Network Analysis	Network analysis is an extension of circuit science. This course is an important introductory subject for students in the Department of Marine Engineering to study electrical machinery-related courses. The basic concepts of this course will be used in subsequent electronics, electrical machinery, power systems, and even control theory. This course is intended to introduce circuit components and circuit analysis step by step, including DC analysis, AC analysis, first-order circuits, second-order circuits, Laplace transformation and network characteristic analysis. It is hoped that it can cultivate students' basic understanding and understanding of circuits and motor courses. concept.	3	B	Department of Marine Engineering	SDG11
2023	1112	Doctorate	1	D7301FR3	A	Industrial Economics in Shipping and Transportation	The main purpose of this course is to allow students to have an in-depth understanding and discussion of important issues and market structures in the shipping industry, as well as to apply relevant economic concepts to analyze and discuss matters related to shipping industry operations.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Doctorate	2	D73021G8	B	Independent Study	This course focuses on independent study on wetlands related topics. It also provides scientific training in problem identification, literature review, hypotheses development, experimental design, proposal writing, experiments implementation, data presentation and scientific paper writing	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	1	B9501Y3A	A	Introduction to Science Education	1. Cultivate students' ability to acquire natural science knowledge. 2. Cultivate students' correct scientific attitudes and scientific methods. 3. Enhance students' understanding of the relationship between science, technology and society.	2	H	Teacher Education Center	SDG15
2023	1112	Doctorate	1	D3B014QD	A	Scientific Paper Reading, Writing and Database Application in Life Science	1.Establish scientific paper reading and writing ability 2.Practice basic skill in scientific literature database	2	B	Department of Bioscience and Biotechnology	SDG4,SDG17,SDG16,SDG12,SDG8
2023	1112	Master	1	M9A013RZ	A	Special Topics on Research Methodology for e-Learning	This course is not technology-centered; rather, it looks at "digital learning" from a learner-centered approach. It is expected that students taking this course will be able to: 1. Understand the experimental design, research methods and theoretical knowledge commonly used in the field of digital learning, 2. Be able to apply theories related to digital learning and put forward their own opinions on practical issues based on students' needs. 3. Be able to further design experiments to verify the hypotheses and claims you have made.	2	B	Institute of Education	SDG4

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2023	1112	Master	2	M04023KF	A	Homeland Security and Law Enforcement at Border	This course aims to cover theories, international and domestic rules, and practice concerning homeland security and law enforcement at border. In addition to basic principles and normative frameworks, important challenges faced by the international community and Taiwan will also be addressed. While this course consists of lectures, accompanied with discussions, research presentations are also required in order to allow students to apply what they have learned and sharpen their skills of compiling research materials and delivering their findings.	2	B	Master Degree Program in Ocean Policy	SDG16
2023	1121	Bachelor	1	B5101P76	A	Engineering Graphics	Understand the principles and rules of drawing engineering drawings. In addition to developing the ability to draw and understand drawings, you must also be able to apply drawing methods to solve complex spatial and engineering problems and create 3D model drawings.	2	A	Department of Systems Engineering and Naval Architecture	SDG9,SDG12
2023	1112	Doctorate	1	D34012CH	A	Yeast-2-Hybrid Experiment	Yeast-2-hybrid experiment is an important tool to analyze protein-protein interaction. It is an efficient, high-throughput screening method and helps the research to establish protein-protein interaction map or model. The theory and application of yeast-2-hybrid experiment will be introduced in the course and the student is asked to operate the experiment.	2	B	Institute of Marine Biology	SDG14,SDG15
2023	1112	Bachelor	1	B92B74Q0	B	SUP Windsurfing	1. Understand the basic concepts and principles of windsurfing, and then be able to observe, think and appreciate windsurfing. 2. Understand the laws and common sense related to windsurfing. 3. Develop windsurfing fitness and possess windsurfing ability. 4. Learn the basic skills and methods of windsurfing sports and become proficient in various sports techniques.	0	A	Office of Physical Education	SDG3
2023	1112	Bachelor	1	B92A74Q0	A	SUP Windsurfing	1. Understand the basic concepts and principles of windsurfing, and then be able to observe, think and appreciate windsurfing. 2. Understand the laws and common sense related to windsurfing. 3. Develop windsurfing fitness and possess windsurfing ability. 4. Learn the basic skills and methods of windsurfing sports and become proficient in various sports techniques.	0	A	Office of Physical Education	SDG3
2023	1112	Master	2	M04023YC	A	Law of Marine Environment Protection	This course introduces the theory, practice, and implementation of various aspects of marine environmental law, covering both international norms and regimes and domestic rules and practice in Taiwan. In addition to lectures and in-class discussions, students registered for this course are expected to learn through working on a specific research topic and delivering oral presentations and drafting a research paper.	2	B	Master Degree Program in Ocean Policy	SDG7,SDG14,SDG13
2023	1112	Master	1	M04013YH	A	Seminar on South China Sea Issues	Discussing Taiwan''''s sovereign status & improving solutions through its demarcation issue on the South China Sea	2	B	Master Degree Program in Ocean Policy	SDG10,SDG17,SDG16
2023	1112	Master	1	M86014QQ	A	FIELD GELOGY (INCLUDING REGIONAL GEOLOGY)	Leaning the methods and techniques of field investigation and geological mapping, and introducing the characteristics of various geological terranes of Taiwan	3	B	Institute of Earth Sciences	SDG7,SDG9,SDG11
2023	1121	Bachelor	1	B3201295	A	Introduction Fishery Sciences	This course provides a comprehensive overview of the disciplines and scope of aquaculture, so that first-year students can have an overall understanding of the current situation and content of the aquaculture industry. The teaching content includes basic professional knowledge and affairs such as fisheries, aquatic products, and aquaculture. , as well as topics such as marine environment and ecological resource conservation.	2	A	Department of Food Science	SDG4
2023	1112	Master	1	M9A0127U	A	Special Topic on Marine Popular Education	1. Know the sea, love the sea, and love the sea. 2. Understand the principles and teaching methods of marine education. 3. Have basic ocean concepts and understand marine science education''s development trend. 4. To deepen the concept of marine science education and transfer it to the teaching field.	2	B	Institute of Education	SDG4,SDG14,SDG15,SDG13
2023	1121	Bachelor	1	B320144K	A	Biology Lab.	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	A	Department of Food Science	SDG14,SDG15
2023	1112	Doctorate	1	D7301J6A	A	Seminars on Organization Theoryand Management	This course is designed for doctoral students who are interested in processes and structures within organizations. The course examines issues at different levels of analysis within organizations, from individual to group to organizational levels. A basic course in the field of social sciences. The literature on organizational and management continues to expand and change. The course also focuses both on organizational theory and empirical studies.	3	B	Department of Shipping and Transportation Management	SDG5,SDG12,SDG9
2023	1112	Bachelor	4	B39041K4	A	Food Industry Extracurricular Practice	In addition to the knowledge acquired in the classroom, students can also have a real understanding of the dynamics outside the school.	9	B	Department of Food Science	SDG4,SDG8,SDG9
2023	1121	Bachelor	4	E42042V4	A	Food Safety Risk Assessment	1. Understand risk analysis, including risk assessment, risk management and risk communication. 2. Understand how risk assessment is used in risk analysis to provide scientific basis for formulating risk management measures, and understand why this measure can be used to protect human health.	2	B	Department of Food Science	SDG3
2023	1121	Bachelor	4	E4204A40	A	Food Regulation	1. Understand the relevant regulations that food businesses should follow. 2. Be able to analyze current food safety issues on your own and understand the corresponding control regulations of the public sector. 3. Able to search and analyze international norms and domestic regulations on their own.	2	B	Department of Food Science	SDG3
2023	1112	Bachelor	1	E4N21410	B	English	The goal of this course is to make students get interested in using English to communicate with people and enhance their accuracy and fluency.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	3	B39030GK	A	Food Analysis Lab.(Ⅱ)	The purpose of this course is to enable students to understand the quality of food sold on the market and to be able to effectively control the quality of products when engaged in production in the food processing industry to ensure that they are nutritious, hygienic and safe and comply with the requirements of laws and regulations.	2	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3903A54	A	Microbiology of Foods	To cultivate students with knowledge and technologies related to food microorganisms so that they can apply what they have learned to perform relevant practical work in the food industry and related academic or research units in the future, and have the ability to analyze, integrate and deal with issues related to food microorganisms.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	4	B39040Q6	A	Quantity Food Management & Lab	Let students understand and practice menu design, as well as understand the concepts and management points of preparing group meals.	3	B	Department of Food Science	SDG4
2023	1112	Bachelor	3	B3303J51	A	Cell Biology	The object of this course is to make students rapidly advancing understanding of key concepts and experimental foundation of related research in cell biology by using Becker’ s World of the Cell 10th edition (2022) as the textbook. Molecular Cell Biology 9th edition (2021) are used as references.	3	B	Department of Aquaculture	SDG3,SDG4,SDG8
2023	1112	Master	2	M3222I3L	D	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M3221I4A	D	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	2	M3222I4A	D	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M3221I3T	C	Seminar	To train graduate students having the capabilities to observe, to survey, to manage, and to express the research papers that distributed in various topics. And provide the opportunities to let students have the chances to diccuss with other graduate students.	1	A	Department of Food Science	SDG4

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2023	1112	Master	2	M3222I3T	C	Seminar	To train graduate students having the capabilities to observe, to survey, to manage, and to express the research papers that distributed in various topics. And provide the opportunities to let students have the chances to diccuss with other graduate students.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	3	B33031O9	A	Reproductive manipulation in the aquatic animal	Control of sexes is critically important for the management of fish stock. Sex steroids are widely used for controlling the sex of fish in the aquaculture. This laboratory work is used in conjunction with textbook of concept of reproduction manipulation lecture. In addition to providing hands-on experience in applying reproductive concepts. Students will gain experience of basic skills in reproductive manipulation techniques.	1	B	Department of Aquaculture	SDG2,SDG14,SDG12
2023	1112	Bachelor	3	B33031O8	A	The concept of reproductive manipulation in the aquatic animal	Many fish species are genetic sex determination and sexes is determined at fertilization but phynotypic sex observed in later developmental stage during fry growth period. Therefore, the treatment of sexually undifferentiated fry by administration of sex steroids has been shown to work well in a wide range of fish species. Thus, in this class, we review the main methods used to control sex determination and reproduction in fish.	3	B	Department of Aquaculture	SDG2,SDG14,SDG12
2023	1112	Bachelor	2	B320228N	A	Food Safety Risk Assessment	1.To introduce principles of health risk assessment. 2.To integrate and calculate risk from hazard identification and exposure assessment. 3.To address the uncertainties by using a probabilistic approach to risk characterization. 4.To develop reading and communication skills.	3	B	Department of Food Science	SDG3,SDG4,SDG11,SDG15,SDG14
2023	1112	Doctorate	1	D8101789	A	Ocean Wave Theory	This course is an introductory course to nearshore water wave dynamics. The objective of the course is to introduce the basic principles of coastal processes and its application.	3	B	Department of Marine Environmental Informatics	SDG3
2023	1112	Bachelor	2	B6802I01	A	International Trade Practice	To enable students to understand the relevant knowledge and skills of import and export trade practices and have a world view	3	B	Department of Transportation Science	SDG8,SDG17,SDG12
2023	1112	Bachelor	3	E4B03649	A	Marketing Management	Introduce the theory and practice of marketing management and discuss market research methods	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	1	M33014B5	B	International Live Feed Industry	Based on the international trends of aquaculture industry and research, the course introduces specific live feed aquaculture industry in different regions worldwide. The training is designed to enhance the student’ s understanding on live feed aquaculture and aspects of regional industry, it aims to enhance student’ s capacity to establish live feed production that contributes to regional aquaculture industry and research activities.	3	B	Department of Aquaculture	SDG1,SDG14,SDG17,SDG12,SDG4,SDG8,SDG9,SDG11,SDG7,SDG3
2023	1121	Bachelor	3	B5103L7O	A	Advanced Java Programming	Nowadays, there''''''re many free packages available to programmers for application development. Thus, further progress may easily be made concerning automation and artificial intelligence along various phases in the world. More free packages are there, hotter is the programming language. Therefore, the class teaches students what the object-oriented programming is and how to use free packages to develop Android applications and applications of controling NAO robots. In the end of the class, a project must be proposed and finished as a part of your learning evaluation.	3	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG10,SDG12,SDG9,SDG4,SDG8,SDG5
2023	1121	Bachelor	1	B3201NNX	B	Service-Learning Program-Campus Service(I)	Department of Food Science and Technology Library Cleaning	0	T	Department of Food Science	SDG4
2023	1121	Bachelor	1	B3201837	B	General Physics (I)	In addition to establishing the basic concepts of physics and understanding their development, students can further flexibly apply related knowledge.	2	A	Department of Food Science	SDG4,SDG7
2023	1121	Bachelor	1	B3201L6L	A	General Chemistry(1)	This course emphasizes the basic theories and definitions in the field of chemistry, and cooperates with the concept of integrating teaching and learning to jointly understand the logical concepts of life sciences with chemical knowledge and build students' ability to study scientific Englsh. For details, please refer to: www.chem.ntou.edu.tw	2	A	Department of Food Science	SDG4
2023	1121	Bachelor	1	B320144K	B	Biology Lab.	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	A	Department of Food Science	SDG4
2023	1121	Bachelor	1	B3201M9J	A	Calculus (I)	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics.	3	B	Department of Food Science	SDG4
2023	1121	Bachelor	2	B6F02S99	A	Marine Engineer''''s English	Objectives Upon completing this course students are expected to be willing to learn and practice themselves, in order to communicate in English clearly and concisely in written and oral forms using appropriate technical and formal vocabulary and formats.	3	B	Department of Marine Engineering	SDG1,SDG9,SDG17,SDG10,SDG8,SDG3,SDG4,SDG5
2023	1112	Bachelor	4	B7304N75	A	Transportation System Analysis	1) A field trip to visit Taipei Port or Keelung Port could be arranged during this semester. (2) The term paper is required for students intend to take this course. Topics of this term paper should be transportation-related, and students should also apply a methodology learn from this course on their research topics. (3)A group of 3~4 students has to submitted a term paper three weeks prior the end of this semester. The term paper can be written either in Mandarin or in English.	2	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	3	B3B030KW	A	Research Databasas and Responsible Conduct in Life Science	The course content is divided into three parts: interpretation of scientific papers, database search, and ethics of scientific research. 1. Structural analysis of scientific papers: Introduce the background introduction, experimental methods, experimental results, figure descriptions, and discuss their respective functions and content focus in scientific papers. Students find a paper on their own and are guided to understand the motivation for research, research strategies, logical thinking, and citations of the paper. 2. Database retrieval: Introducing accurate retrieval methods for important databases and analysis of development trends in related fields, guiding students to cite documents correctly and quickly find important reference materials. 3. Scientific research ethics: Guide students to establish correct concepts in research work through topic discussions, so that students can understand the value of scientific research.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG12,SDG17,SDG16,SDG11,SDG4,SDG10,SDG9
2023	1112	Bachelor	2	B6C02P1C	A	Electronics (II)	Train students' ability to analyze and design electronic circuits. The focus of this semester is frequency response and feedback. Frequency response is an important analysis tool for communication systems, and feedback is an important core concept of control systems.	3	A	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1112	Master	1	M32012CC	A	Advanced Risk Assessment &Communication	1.To introduce principles of food safety risk assessment. 2.To conduct an environmental risk assessment based on the USEPA methodology. 3.To address the uncertainties by using a probabilistic approach to risk characterization. 4.To integrate and calculate risk from hazard identification, exposure results and quantitative. 5.To develop reading and communication skills.	3	B	Department of Food Science	SDG3,SDG11,SDG15,SDG14,SDG4
2023	1112	Master	1	M32014HN	A	Applied Microbialtechnolgy	The aim of this class is specific for the 3rd and 4th year undergraduate students whom already studied Microbiology for about 6 credits in our Department. And the various application of microorganisms on the different fields will be introduced to the students, to let them inderstand how to effectively develop the utilizations in all aspects by using appropriate microorganisms.	3	B	Department of Food Science	SDG4
2023	1112	Master	1	M90012X9	A	Topics in Oceanic Humanities and Social Sciences	Improve marine humanities literacy, broaden international horizons, cultivate the ability to conduct cross-domain research on marine humanities and social issues, and develop diversified expertise to respond to social changes, industrial types, national marine development policies, and world trends.	1	A	College of Humanities and Social Sciences	SDG4

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Bachelor	2	B320260H	B	Organic Chemistry Lab. (II)	In conjunction with the teaching of organic chemistry courses, students are provided with basic techniques for learning experimental operations.	1	A	Department of Food Science	SDG4
2023	1112	Master	1	M7101MEA	A	Advanced Gray Theory & Applications	To enable students to understand the foundation and related concepts of gray theory, and to introduce its current application fields, so that it will be helpful to them when they study their master's thesis in the future.	3	B	Department of Merchant Marine	SDG4
2023	1121	Master	1	M5101K02	A	Theory of Ship Structure	Aim at the characteristics of ship structures, to establish the more advanced analysis models and to discuss the fundamental principles as well.	3	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG9,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG8,SDG3,SDG5,SDG6,SDG7,SDG4,SDG2
2023	1121	Master	1	M32014KT	A	Advances in Applied Microbiology	The goal of this course is to teach students to recognize microbes as an important biological resource for human well-being. The teaching content covers the research, development and application of pharmaceuticals, fermentation, food, industry, agriculture, environmental protection, modern biotechnology, genes, proteins, etc.	2	B	Department of Food Science	SDG2,SDG3,SDG4
2023	1112	Bachelor	1	B9500Y48	A	Classroom Management	1. Understand the theory and content of classroom management 2. Be familiar with classroom planning and implementation 3. Use the design of classroom activities 4. Be familiar with the ideals and practices of parent-teacher communication 5. Understand the roles and responsibilities of a competent teacher	2	H	Teacher Education Center	SDG1,SDG4,SDG5,SDG8
2023	1112	Bachelor	1	B9502Y2S	A	Assessment for Learning	Students can familiarize themselves with the related fields of educational testing and assessment to understand their basic theories and possible practical applications.	2	H	Teacher Education Center	SDG3,SDG4
2023	1112	Bachelor	2	B6A02U6I	A	Energy Materials	Introduce the basic properties of materials including various mechanical, optical, electrical magnetic and thermal properties, the main aim is to teach students in understanding that the materials properties play key role in energy system. The students will learn about the importance of energy materials in a variety of energy industries.	3	B	Department of Marine Engineering	SDG3,SDG13,SDG15,SDG17,SDG14,SDG12,SDG6,SDG7,SDG11,SDG9
2023	1121	Master	1	M3211I3T	A	Seminar	Training of gradute student, literature search, survey, integrate, and present ability in different issue, as well as participate interaction each other.	1	A	Department of Food Science	SDG3,SDG4,SDG17
2023	1121	Master	1	M3211I3L	D	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG3
2023	1121	Master	2	M3212I3L	A	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	B330145S	A	Biology Lab. (Ⅱ)	Through hands-on operations, observations and verification of life phenomena, biodiversity, and the relationship between organisms and the environment described in biology.	1	A	Department of Aquaculture	SDG4,SDG15,SDG14
2023	1112	Doctorate	1	D6601K23	A	Advanced Study on Prevention of Ship Pollution	to teach students: 1. to realize the causes of marine casualties 2. to familiar the regulations related with marine pollution 3. to understand measures of preventing marine pollution	3	B	Department of Marine Engineering	SDG6,SDG7
2023	1112	Bachelor	3	E4203A54	A	Microbiology of Foods	This course is an introduction to food microbiology for those majoring in food science and related disciplines. To help course students understand the characteristics of microorganisms in food, detection and prevention strategies.	3	A	Department of Food Science	SDG4
2023	1112	Bachelor	1	E4221L60	A	General Chemistry	General chemistry is a basic course in life sciences. This course is intended to introduce and discuss the basic principles of general chemistry and its experimental methods from a wide range of angles in the first year of college, in order to lay the foundation of chemistry for undergraduate students and inspire them to have an understanding of life. scientific interest.	2	A	Department of Food Science	SDG1,SDG10,SDG4
2023	1112	Bachelor	3	E4203U79	A	Nutrition (1)	1. Guide students to learn the functions, needs and food sources of various nutrients, as well as the concept of a balanced diet. 2. From the teaching content, students can use the knowledge they have learned to evaluate personal daily caloric needs and provide dietary advice. 3. Inspire students' interest in learning advanced nutrition courses.	3	A	Department of Food Science	SDG3,SDG4
2023	1121	Bachelor	4	B3B024U5	A	Elementary English Presentation of Biotechnology	This course aims to help the students to improve their skills of English presentation and communication, especially focusing on biological science and biotechnology-relating topics.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG4
2023	1112	Bachelor	3	B5303386	A	Physics of Semiconductor Devices	This course will introduce the basic physical principles and related applications of semiconductor components. It is expected that through this course, you can understand the physical characteristics of semiconductor components, introduce electronic and optoelectronic components, and understand the development trends of semiconductor components.	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1121	Bachelor	1	B3B012W0	A	Programming language and data processing	Have basic Python programming, English typing ability, and bioinformatics ability	2	A	Department of Bioscience and Biotechnology	SDG3,SDG14,SDG13,SDG9,SDG11,SDG4,SDG12
2023	1121	Master	1	M3211I3T	C	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG8,SDG9
2023	1121	Master	2	M3212I3T	A	Seminar	Training of gradute student, literature search, survey, integrate, and present ability in different issue, as well as participate interaction each other.	1	A	Department of Food Science	SDG3,SDG4,SDG9,SDG17
2023	1121	Master	1	M3211I3L	B	Seminar	Train graduate students in their ability to collect, organize and express documents on different research topics. It also provides opportunities for students to participate in discussions and interactions on various research topics.	1	A	Department of Food Science	SDG4
2023	1121	Master	1	M57014SI	A	AIoT Management Platform and its Applications	The goal of this course is to enable students to understand the development of Artificial Intelligence applications on the AIoT management platform IoTtalk, and to help them understand how to apply AI technology to IoT applications.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Master	1	M9D014PF	A	Network-based Language Learning and Teaching	This course provides an overview of the theory and practice of network-based language teaching (NBLT). It will involve students in exploring theories of computer technology in language learning and teaching, using and discussing applications of computer assisted language learning (CALL) programs and materials, and creating projects to use and test knowledge gained through reading, discussion, and hands-on experiences. The specific objectives of this course are to help students (1) understand how computer	3	B	Institute of Applied English	SDG4
2023	1112	Bachelor	1	B95012PK	A	Gender Education	1. Students can understand the importance and content of gender equality. 2. Students can break gender stereotypes and myths. 3. Students can understand the true meaning of substantive equality of gender status. 4. Students can be familiar with the personal dignity and adaptive development of both genders. 5. Students can establish gender-equal educational resources and environment.	2	H	Teacher Education Center	SDG5,SDG10
2023	1112	Bachelor	2	B95023U1	A	Occupational ethic and work attitude	Students can become familiar with professional ethics and develop good work attitudes, in order to understand its basic theory and possible practical applications.	2	H	Teacher Education Center	SDG3,SDG17,SDG10,SDG8

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2023	1112	Master	1	M52014K4	A	Planning and design of low impact development (LID)	This course introduces the topics related to the field of LID systematically and comprehensively. Students can have a better understanding of LID related issues, and have more in-depth views and plans for future researches.	3	B	Department of Harbor and River Engineering	SDG6,SDG11,SDG13,SDG9
2023	1121	Master	1	M32010PN	A	Proteomics	1.To provide students easily apply the knowledge learned from the class to further self-reading, research, and other purpose. 2.To realize the basic relationships among genomics, proteomics, and bioinformatics. 3.To understand the impacts of global functional protein on cancer and immunological diseases. 4.To catch newly updated proteomics tools and understand classic academic achievements.	3	B	Department of Food Science	SDG3,SDG4
2023	1112	Master	1	M74011ZJ	B	Civil Code-general Provisions of Obligations	Civil law is an important standard for resolving private disputes, and debt collection is an important area of civil law. The purpose of this course is to give students an overall understanding of the system of debt collection in civil law. In addition to learning methods for resolving disputes, they can also As a basis for more in-depth study of private law.	2	A	Institute of the Law of the Sea	SDG1,SDG4,SDG5,SDG9,SDG11,SDG16,SDG17,SDG12,SDG10,SDG8,SDG2
2023	1112	Bachelor	3	B5203S0D	A	Numerical Analysis	This course mainly discusses the theory, method, and programming of numerical analysis.	2	B	Department of Harbor and River Engineering	SDG4
2023	1121	Doctorate	1	D3201667	A	Immunology	This course was designed through seminar presentation, that will extend the basic knowledge of immunology. The lectures will focus on intensively active areas of cellolar immunology research. Basic principles will be reinforced by considering disease states in which basic cell biological processes as well as immune response are defective.	3	B	Department of Food Science	SDG3,SDG17
2023	1121	Bachelor	3	E4203M8D	A	Applied Microbialtechnolgy	The goal of this course is to introduce the basic physiology of microorganisms and related utilization technologies in various industries.	2	B	Department of Food Science	SDG3,SDG13,SDG14,SDG12,SDG6,SDG9,SDG10,SDG11,SDG7,SDG4
2023	1112	Master	1	M3421I38	A	Institute Seminar	This course mainly trains students to present academic papers or research topics related to marine biology. It focuses on the presentation time control, layout of report content, practice of oral presentation. In addition, students are encouraged to ask relevant academic questions to the speakers in order to strengthen their academic ability.	1	A	Institute of Marine Biology	SDG4,SDG14,SDG17,SDG13,SDG7,SDG11,SDG12
2023	1112	Master	1	M7101ME7	A	Queuing Pricing and Decision Behavior	To understand the bottlenecks in the crowded public facilities in a state of queuing for pricing models, as well as users in this mode, the equilibrium of decision-making behavior.	3	B	Department of Merchant Marine	SDG10,SDG11
2023	1112	Bachelor	2	B6A02925	A	Fluid Mechanics	Principal concepts and theories of fluid mechanics will be discussed in this course. The flow phenomena and their practical applications in fuild engineering will be illustrated as well. The students are expected to build up sound knowledge and adequate backgound of fluid mechanics through the learning of this course.	3	A	Department of Marine Engineering	SDG7,SDG14,SDG13,SDG9
2023	1112	Master	1	M68011CL	A	Intelligent Transportation System and Controlling	This is a graduate course on Intelligent Transportation Management. The purpose of this course is to combine a simulated intelligent transportation system design competition, so as to cultivate the ability of problem-solving and evaluation capabilities.	3	B	Department of Transportation Science	SDG9,SDG11
2023	1112	Bachelor	2	E42021C5	A	Baking Science	Understand the review and outlook of the baking industry, understand the classification of baking products and the characteristics of raw materials, learn the production processes of bread, cakes, Western pastries and Chinese pasta, and become familiar with the principles and applications of baking calculations. To enable students to understand the characteristics of various baking ingredients (knowledge), strengthen students' ability to apply baking ingredients to baked products (skills), instill in students the professional attitude and professional qualities of baking practitioners (attitude), and strengthen students' multiple and reverse thinking ability.	2	A	Department of Food Science	SDG3,SDG12
2023	1121	Bachelor	3	B52032CX	A	Special Topic Research- Construct the Coastal Environment	The goal of this course is to help students understand their specialties and interests. Taking this course will help students engage in research work, familiarize students with research methods and practices, and train students to search for information, conduct independent research, and write reports. Students in the third and fourth grades of the department who are interested in further study or participating in the graduate screening can use their spare time to conduct special research with the teachers of the department. Before choosing courses, they must visit the supervisor and determine the direction of the project. The working hours are arranged by the supervisor. Submit a research project report to the department office at the end of the semester, and the instructor will evaluate the report and sign it. Those who pass the grade can get the credits of this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in riv	2	B	Department of Harbor and River Engineering	SDG4,SDG11
2023	1121	Bachelor	1	B9D01968	U	English	The main objective of this course is to improve students' reading skills and comprehension. Through a selection of well-written articles, the students will be asked to practice various reading skills such as thematic identification and analyses of written materials given. They will also have the opportunity of honing their writing skills.	2	A	Institute of Applied English	SDG3,SDG5,SDG10,SDG16
2023	1121	Bachelor	1	B9D01968	D	English	The topics of the course are related to SDGs.This course is to cultivate students' English communication ability and to improve students' English listening and reading skills.	2	A	Institute of Applied English	SDG1,SDG2,SDG14
2023	1121	Bachelor	1	B9D01968	E	English	This course will focus on improving students' English reading and listening skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4,SDG10,SDG5
2023	1121	Bachelor	3	B9D03TVQ	B	Essential English	This course will focus on improving students' English fundamental skills as well as developing their grammatical and vocabulary knowledge. Moreover, this course will provide scenarios for students to use English. English for practical and academic purposes will be addressed in this course.	0	A	Institute of Applied English	SDG4
2023	1121	Master	1	M30014MN	A	Intellectual Property Management and Patent Analysis	This course focuses on intellectual property management and regulations, team formation and management, financial and risk management. The first three days of the course are scheduled with nine keynote speeches, including production management, marketing management, risk management, financial management, financial statement planning, patent law reading and writing, patent search, patent map and layout design, company organization, corporate law and biotech venture topics. The last two days of the classes covered how to construct patent maps using the patent analysis platform software purchased by NTOU.	2	B	College of Life Sciences	SDG8
2023	1121	Bachelor	1	B9D01968	F	English	This course is designed (1) to enable students to deal effectively with sophisticated reading materials, (2) to guide them in the development of conscious, reflective attitude toward reading, (3) to help them select the proper skills or strategies to solve each reading problem, and (4) to enlarge their English vocabulary.	2	A	Institute of Applied English	SDG4
2023	1121	Master	1	M35010RL	A	Marine Economics	1.Marine policy, blue economy and marine industry development. 2.Management norms and economic efficiency and methods for sustainable utilization of marine resources. 3.Case analysis of marine industrial economy: shipping industry or fishery, etc.	3	B	Institute of Applied Economics	SDG8,SDG11,SDG14,SDG16
2023	1121	Bachelor	1	E4A01I3O	B	Fire Prevention and Fire Fighting	The objective of this course is to establish students' are expected to be familiar with the methods,characteristics,operating procedures,safety operation rules and emergency response measures of ship fire-fighting operations.	2	A	Department of Merchant Marine	SDG4,SDG14

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2023	1121	Bachelor	2	E4A020N0	B	SOLAS and MARPOL	This course enables students to understand the main content of the Convention for the Safety of Life at Sea (SOLAS), the Convention for the Prevention of Pollution from Ships (MARPOL) and related Codes, cultivate students'' awareness of the regulatory requirements and standards for the operation and maintenance of ships, and therefore enhance the ability to identify potential non-compliance in the working environment in order to comply with the functional standards stipulated in Table A-II/1 and A-II/2 of Section II/1 and Section II/2 of Chapter II of the STCW Code.	2	A	Department of Merchant Marine	SDG3,SDG14,SDG7,SDG4,SDG6
2023	1121	Bachelor	4	B71041R2	A	Ship Handling and Simulation	This course complies with the International Maritime Organization (IMO) Model Course 7.03-1.3 Use of Radar and ARPA to Maintain Safety of Navigation and (IMO Model Course No.1.07 and STCW 1995 Regulation 1 /12), and 1.2.1 Knowledge of the Collision Regulation. 1.2.1.1 Content, application and intent of COLREG 1972; 1.2.2 Principles in Keeping a Navigational Watch Deck duty; 1.1.3 Electronic Systems of Position Fixing and Navigation Electronic positioning and navigation systems, etc.; taking into account relevant necessary knowledge or To teach skills, the following teaching content is arranged. Students can learn the following matters by using the ARPA simulator and ship maneuvering simulator: 1. Be familiar with various equipment and functions of the bridge 2. Operate various equipment 3. Familiarity and application of rudder orders and clocks 4. Observe the dynamics between ships 5. Practice ship avoidance	2	B	Department of Merchant Marine	SDG4,SDG9,SDG11,SDG13,SDG14,SDG12,SDG8
2023	1121	Bachelor	2	B9D023KO	B	English Grammar and Exercises (Intermediate)	The course aims to help students become aware of, and be able to use, a variety of ways to express their ideas in writing. In this course, the emphasis is placed on doing, rather than analyzing the grammatical structures under practice. Provided with practice combining sets of sentences, students are asked to use a variety of sentence combining and expanding techniques to produce more specific, concise and fluent sentences.	2	B	Institute of Applied English	SDG1,SDG4
2023	1121	Bachelor	1	B9D01968	B	English	This course is designed to improve students' English proficiency through extensive reading, listening, writing, and speaking activities. The course will focus on practice of different types of language uses. By the end of semester, students are expected to be able to build communicative competence in English to interact with others in everyday life as well as express themselves in English accurately and effectively.	2	A	Institute of Applied English	SDG4,SDG8,SDG10,SDG13,SDG15,SDG17,SDG14
2023	1121	Bachelor	2	E4112992	A	Introduction to Computer Science	Learn the basic theoretical courses of computer science, so that students can understand the software and hardware architecture of computer, the basic operation mode of the system, digital system, numerical logic, data structure, algorithm, common software package and related network applications, as well as computer virus and network Road safety, etc., and then become familiar with computer operation and integrate it with daily life, so as to lay the foundation for future exposure to information-related professional fields.	2	A	Department of Shipping and Transportation Management	SDG1,SDG2,SDG4,SDG6,SDG8,SDG10,SDG12,SDG14,SDG17,SDG16,SDG13,SDG11,SDG9,SDG7,SDG5,SDG3
2023	1121	Bachelor	2	E4N02412	B	English	This course focuses on preparing Business English language including vocabulary building through listening clips reading graded readers. Teachers prepare a series of graded reading, listening, speaking and writing materials for students to read for fun and learn more business English language skills and practical knowledge.	2	A	Institute of Applied English	SDG1,SDG4,SDG8
2023	1121	Bachelor	1	E4901ZML	A	Music of Life	<1> Introducing musical works in a daily basis, inspiring the diversity of life through the influence of artistic creation, and cultivating music appreciation abilities. <2> From the actual interactive teaching, combine the diverse art of music with life, and gain the accumulation of aesthetic experience. <3> Although the golden opportunity to learn piano and violin instruments has been missed, it is not too late to learn to appreciate classical music and related culture from now on! <4> Use multimedia to understand the comparison of works from different musical centuries and the impact of musicians' background on their creative performance. Peep into the composer's little secrets and creative inspirations that have not been recorded in the history of music.	2	C	Office of the Academic Affairs	SDG3,SDG17,SDG5
2023	1121	Bachelor	1	E4900Z96	A	Appreciation of Modern Arts	1. Enhance students' interest in and cultivation of art 2. Enhance students' understanding and critical ability of modern artistic trends. 3. Through the experience and operation of modern art, one can expand his macroscopic aspirations	2	C	Office of the Academic Affairs	SDG4,SDG10,SDG17,SDG15,SDG5
2023	1121	Bachelor	1	E4911H61	C	Chinese	By reading the classic works of thinkers and writers, students can not only improve the foundation of their language skills, but also be able to reflect on their own life situations and attitudes towards others, so that classics can be integrated into personal life. In addition, we hope to train students in coordination, communication, oral expression, image communication and other abilities through discussions, reports, multimedia teaching and other methods.	2	A	Office of the Academic Affairs	SDG4
2023	1121	Bachelor	2	B9D023L2	A	Tourism English (Intermediate)	Strengthen and enhance tourism English abilities of listening, speaking, reading, writing and vocabulary.	2	B	Institute of Applied English	SDG4,SDG11,SDG12,SDG5
2023	1121	Master	1	T46011RW	B	Criminal Law-General Principles	This course will teach students systematically through systematic content and explanations with examples, so that students can understand many abstract principles and theories of the general principles of criminal law.	2	A	Institute of the Law of the Sea	SDG5,SDG16,SDG10
2023	1121	Bachelor	1	E4Q01FT1	A	Thermal fluids dynamics I	Thermodynamics is an engineering cours based on applied physics and particularly interested in relationships between energy, work and heat. Thermodynamic concepts are essential for analyzing almost all Mechanical Engineering problems, hence, the objective of this course is to educate engineering students so they are able to effectively utilize thermodynamics for practical problem solving.	2	A	Department of Marine Engineering	SDG1,SDG2,SDG3,SDG4,SDG6,SDG7,SDG9,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG8,SDG5
2023	1121	Bachelor	3	B52031AW	A	Coastal Development and Conservation	Introduction to coastal development, management policy and conservation. The goal is to understand the balance between coastal development and conservation.	3	B	Department of Harbor and River Engineering	SDG13,SDG14
2023	1121	Bachelor	2	B71024O4	A	Introducing of Python programming	This course will introduce the basic skills of using Python language to plan and design programs, as well as several commonly used tools and examples for automated file organization and management, Web retrieval of information, processing of Excel spreadsheets, and processing of images and pictures.	2	B	Department of Merchant Marine	SDG1,SDG4,SDG10
2023	1121	Doctorate	1	D66010KU	A	Semiconductor Manufacturing Technology	Learn semiconductor equipment and process	3	B	Department of Marine Engineering	SDG4
2023	1121	Bachelor	2	B9D023L0	A	Workplace English (Intermediate)	This course aims at helping students at an intermediate level of English equip with a knowledge of professional English before entering a workplace.	2	B	Institute of Applied English	SDG4,SDG8

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2023	1121	Bachelor	1	B9D01968	2	English	While learners study a language, they are expected to be able to learn the most with the awareness of their learning autonomy and the willingness to express themselves actively in learning processes. Thus, based on that, this class will help students to improve skills necessary for better successful English communication, listening and speaking, through the use of English as the medium of instruction, the use of DVD / CD, and other classroom interactive activities. This will acclimate their ears to understanding spoken English easily, and oral practices will increase their speaking fluency. In order to master English as a tool of verbal communication, emphasis will also be included on developing native-like vocabulary (idioms), speech patterns, and pronunciation. In addition, there will be frequent classroom discussions.	2	A	Institute of Applied English	SDG1,SDG9,SDG10,SDG4,SDG2,SDG3
2023	1121	Bachelor	1	E4A01VGN	B	Geo-Navigation	To enable students to learn to meet the "Operational Level" and "Management Level" seafarers related to territorial navigation in the 1995 Amendment to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.	4	A	Department of Merchant Marine	SDG4,SDG17
2023	1121	Bachelor	1	E4A011DU	B	Marine Communication and GMDSS	In comply with the STCW convention, this course follows IMO Model Course 1.25 (General Operator''''''''''''s Certificate for the GMDSS) lecturing the relevant knowledge of maritime communication, including the theory of GMDSS, to ensure that the trainees are capable of managing those equipments onboard ship with necessary skills.	3	A	Department of Merchant Marine	SDG4,SDG14
2023	1121	Bachelor	2	E4A02K2B	B	Ship Handling	This course follows (IMO)Model Course 7.03-1.8.1 Specifications for Ship maneouvring and Handling include: 1.8.1.1 Turning circles and stopping distance. 1.8.1.2 Effect of wind and current on ship handling. 1.8.1.3 Maneouvres for rescue of person overboard. 1.8.1.4 Squat, shallow water and similar effects. 1.8.1.5 Proper procedures for anchoring and mooring.Give consideration to the teaching of relevant necessary knowledge or skills,and arrange the following teaching contents. To enable students to understand the basic accessories and operating equipment of the ship , so that the ship operator can use the characteristics and methods of the ship to maintain or change the ship''s motion under the current external environment conditions to achieve the analysis,judgment and command of safe navigation	2	A	Department of Merchant Marine	SDG4,SDG14
2023	1121	Bachelor	2	B71021R3	A	Simulation on Container Terminal Operation System	The advancement of science and technology has led to rapid changes in port facilities. In order to enable students graduating from this department to have a deeper understanding of the use and operation of today's modern port facilities. However, the complexity of port facilities often results in a lack of appropriate auxiliary teaching aids in teaching, and we can only rely on imagination and intuition without being able to concretely demonstrate its effectiveness. With the help of this port simulation system, the complex actual port system can be understood at a glance the complete operational process.	2	B	Department of Merchant Marine	SDG4,SDG9,SDG12,SDG14,SDG13,SDG11
2023	1121	Bachelor	3	E4103L92	A	Port Administration and Management	1.The operation and management of ports. 2.The function,kinds,elements,and security of ports.	2	A	Department of Shipping and Transportation Management	SDG8,SDG9
2023	1121	Master	1	M9A014ST	A	Special Topic on Marine and Outdoor Education	This course aims to promote students' understanding of the relevant academic fields of our institute through professional knowledge teaching, special lecture discussions, and participation in academic activities. It is mainly divided into two stages of learning process. The first stage is to introduce the ocean and the evolution of theories related to outdoor education, to understand the academic foundation behind the theory; the second stage focuses on the current practical actions and sharing of marine literacy, issue integration into teaching, literacy orientation, etc., to stimulate the motivation for future academic research. 1. Understand the development trends of marine and outdoor education at home and abroad. 2. Cultivate phenomenon analysis and problem criticism of marine and outdoor education. 3. Produce research ideas on ocean and outdoor education with educational implications.	2	A	Institute of Education	SDG4
2023	1121	Bachelor	2	B520293B	B	Fluid Mechanics (I)	Introduces the characteristics of fluids and the laws and analysis of fluid motion. It also introduces the phenomena and analysis of dynamic characteristics of fluids.	3	A	Department of Harbor and River Engineering	SDG4
2023	1121	Master	2	T4W12J25	A	Thesis	Graduation thesis	3	A	Department of Computer Science and Engineering	SDG9
2023	1121	Bachelor	2	B7102C96	B	Oceanography	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.1.7 Meteorology. It takes into account the teaching of relevant necessary knowledge or skills, arranges the teaching content, and enables students to understand the physics and chemistry of seawater. There is a general understanding of the characteristics, seabed geology, topography, currents, waves, tides, sea ice, etc. as a basis for more in-depth courses in the future.	2	A	Department of Merchant Marine	SDG4,SDG14
2023	1121	Bachelor	2	B7102D08	A	Maritime Law	The Purpose of Maritime Law to Assist Maritime Training Institutes	2	B	Department of Merchant Marine	SDG1,SDG9,SDG17,SDG16,SDG14,SDG13,SDG12,SDG11,SDG10,SDG8,SDG3,SDG5,SDG6,SDG7,SDG4,SDG2
2023	1121	Bachelor	2	B7112547	A	Geo-Navigation	To enable students to learn to meet the "Operational Level" and "Management Level" seafarers related to territorial navigation in the 1995 Amendment to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.	2	A	Department of Merchant Marine	SDG4,SDG17
2023	1121	Bachelor	1	B7111L66	B	General Physics	In addition to enabling students to establish the basic concepts of physics and understand their development, they can also further apply relevant knowledge flexibly.	2	A	Department of Merchant Marine	SDG4
2023	1121	Bachelor	2	B9D023L3	A	English Grammar (Elementary)	This course is designed to help learners analyze the parts of speech and functions of words step by step to better understand the principles of sentence structures by using examples in real life.	2	B	Institute of Applied English	SDG4,SDG17
2023	1121	Bachelor	3	B7103K9D	B	Ship Hydrostatics and Stability	This course is in accordance with the International Maritime Organization (IMO) Model Course 7.03-2.1.1 The Effect of Cargo, Including Heavy Lifts on the Sea-worthiness and Stability of the Ship, 2.1.2 Safe Handling, Stowage and Securing of Cargoes, 3.2. 1 Ship Stability, 3.2.2 Ship Construction and Physical Science specifications, taking into account the teaching of relevant necessary knowledge or skills, so that students can learn to comply with the "2010 Amendment to the International Convention on Standards of Training, Certification and Duty Duty for Navigating Personnel, 1978" The standards of competency for navigation expertise include the knowledge and skills required for operational-level abilities in ship operation and shipboard personnel management.	2	A	Department of Merchant Marine	SDG4,SDG8,SDG16,SDG17

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	1	B71010FA	B	Introduction to Merchant Ship	This course, complying with the International Maritime Organization (IMO) Model Course 7.03-3.1 ENSURE COMPLIANCE WITH POLLUTION-PREVENTION REQUIREMENTS, is designed for new students entering the department to receive the basic knowledge of merchant ships through the concept of risk and norms, and is acting as the technical and cognitive foundations of various professional courses in follow-up study.	2	A	Department of Merchant Marine	SDG4,SDG17,SDG16,SDG12,SDG14
2023	1121	Bachelor	2	B7112191	A	Celestial Navigation	This course is 4 credits for the whole academic year, and is taught in two semesters with 2 credits each; the total study hours are 72 hours. Astronomy and navigation is the methodology of using celestial bodies - such as the sun, moon, stars, and planets - to determine a ship''s position or to calibrate a compass. Accordingly, the main content of this course is to introduce the principles and methodology of celestial body positioning, and focus on the intercept method (Intercept method) proposed by Commander Marcq de St.-Hilaire in 1872; Azimuth equations and other methods. This course will provide students with the most basic calculation frameworks such as "Complete Calculation of Sky Measurement" and "Proofreading Compass", and guide students to think in the process. It is hoped that based on this, new calculation methodologies can be proposed step by step.	2	A	Department of Merchant Marine	SDG4,SDG12,SDG16,SDG17
2023	1121	Bachelor	3	B7103K9D	A	Ship Hydrostatics and Stability	This course is in accordance with the International Maritime Organization (IMO) Model Course 7.03-2.1.1 The Effect of Cargo, Including Heavy Lifts on the Sea-worthiness and Stability of the Ship, 2.1.2 Safe Handling, Stowage and Securing of Cargoes, 3.2. 1 Ship Stability, 3.2.2 Ship Construction and Physical Science specifications, taking into account the teaching of relevant necessary knowledge or skills, so that students can learn to comply with the "2010 Amendment to the International Convention on Standards of Training, Certification and Duty Duty for Navigating Personnel, 1978" The standards of competency for navigation expertise include the knowledge and skills required for operational-level abilities in ship operation and shipboard personnel management.	2	A	Department of Merchant Marine	SDG4,SDG8,SDG17,SDG16
2023	1121	Bachelor	3	B71030N0	A	SOLAS and MARPOL	1. Make students aware of the content of the Convention on the Safety of Life at Sea and related regulations. 2. Make students aware of the content of the Convention on the Prevention of Marine Pollution.	2	A	Department of Merchant Marine	SDG3,SDG6,SDG7,SDG13,SDG15,SDG17,SDG14
2023	1121	Bachelor	3	B7103K2B	B	Ship Handling	This course follows the International Maritime Organization (IMO) Model Course 7.03-1.8.1 Ship maneouvring and handling; Includes: 1.8.1.1 Turning circles and stopping distance. 1.8.1.2 Effect of wind and current on ship handling. 1.8.1.3 Maneouvres for rescue of person overboard. 1.8.1.4 Squat, shallow water and similar effects. 1.8.1.5 Proper procedures for anchoring and mooring. Taking into account the transfer of relevant necessary knowledge or skills, the following teaching contents are arranged. To enable students to understand the basic fittings and operating equipment of the ship, so that the operator can take the advantage of the equipment, characteristics or other means of the ship itself to maintain or change the state of movement of the ship for the purpose of carrying out the necessary observation, analysis, judgment, command, implementation, etc. for safe navigation under the conditions of the external environment at that time.	2	A	Department of Merchant Marine	SDG1,SDG8,SDG14,SDG12,SDG4
2023	1121	Bachelor	1	E4Q01K1J	A	Ship's Construction & Stability	(This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW 1995 for the Competence Marine Engineering at the Operational Level.) ◦ (This course also provides the background knowledge in: ship construction.)	2	A	Department of Marine Engineering	SDG3,SDG17,SDG9,SDG8
2023	1121	Bachelor	1	B9500Y05	A	Educational Psychology	1. Understand adolescent learning and development. 2. Understand important theories such as learning, cognition, motivation, and behavior. 3. Understand the use of different teaching strategies to enhance learning results.	2	H	Teacher Education Center	SDG3,SDG4,SDG5,SDG10
2023	1121	Master	1	M7401640	B	Seminar on Administrative Law	In-depth study of controversial issues in administrative law theory and practice	2	A	Institute of the Law of the Sea	SDG15
2023	1121	Bachelor	2	E4A02PGD	B	Proficiency in Survival Craft and Rescue Boat	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliances, and refers to the Model Course 1.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats and the 2010 Amendment Rules of the 1978 STCW International Convention. VI/2, the latest revised contents such as SOLAS international convention and LSA charter, taking into account the teaching of relevant necessary knowledge or skills, teaching students to understand and correctly operate and use lifeboats, rescue boats, life rafts, life jackets, immersion suits, life buoys, etc. Life-saving equipment, and familiar with the use of various survival communication equipment, distress signal transmission, first aid treatment of casualties, helicopter hoisting equipment and rescue methods, maintenance and inspection of lifeboats and rescue boats, as well as professional knowledge and experience in operating rafts in severe weather. Skills, and then master and control how individuals and all passengers on the ship can effectively avoid dangers under abnormal ship conditions, and cope with various difficulties in dangers, so as to achieve the purpose of self-rescue and rescue of others.	2	A	Department of Merchant Marine	SDG4,SDG5,SDG17
2023	1121	Master	1	M3701N6L	A	Data Process Analysis and Presentation	This class emphasis on the technical perspectives of data collections, processes and presentation, which are essential for graduate students when working on their own thesis research. Except for some discussions on the principles of scientific data collection, two softwares will also be introduced in the class, the SAS basically dealing with how the collected data be analyzed, and the SigmaPlot is useful for present your results in a graphical forms. Thus, for each lecture, at least one hour will be left for student to do the exercises. Hopefully, with these arrangement, each of you will not only be able to analyze your thesis results independently, but also present these results with full confidence.	3	B	Institute of Marine Affairs and Resource Management	SDG4,SDG14
2023	1121	Bachelor	3	B5103B35	A	Vibration	This course will continue the results learned in dynamics and continue to explore professional knowledge in related fields of vibration. The course will explore the basic concepts of vibration, the derivation of equations of motion and natural frequencies, single-degree-of-freedom systems, multi-degree-of-freedom systems, and isolation using the theories learned. Vibration (shock) and vibration absorption design	3	B	Department of Systems Engineering and Naval Architecture	SDG3,SDG4
2023	1121	Bachelor	2	B68022NV	B	Advanced Information and Communications Technology in Smart Transportation	Safety and efficiency are two main goals of intelligent transportation systems (ITS) development for all countries in the world. With fully support to ITS from government, Taiwan has great achievement to introducing ITS into freeway and urban traffic management systems, and also in public transportation services. With mobile services, traffic information is available to the public to meet their “transport” needs. In recent year, ITS has dramatically changed by introducing “Internet of Things”. “Vehicle” are connected together using dedicated short range communication (DSRC) and autonomous vehicles are aggressively developed. This course tends to introduce the concept of smart city and smart transport, and current ITS development and its future plan will be discussed. New technologies, such as connected vehicle, advanced drivers assistance system (ADAS), autonomous vehicle, and their impact to urban transport will also be discussed. Finally, new business models such as “sharing” and “	3	B	Department of Transportation Science	SDG11
2023	1121	Bachelor	1	B7101992	A	Introduction to Computer Science	Learn the basic theoretical courses of computer science, so that students can understand the software and hardware architecture of computer, the basic operation mode of the system, digital system, numerical logic, data structure, algorithm, common software package and related network applications, as well as computer virus and network Road safety, etc., and then become familiar with computer operation and integrate it with daily life, so as to lay the foundation for future exposure to information-related professional fields.	2	A	Department of Merchant Marine	SDG1,SDG2,SDG5,SDG7,SDG9,SDG11,SDG13,SDG15,SDG17,SDG16,SDG14,SDG12,SDG10,SDG8,SDG6,SDG3

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2023	1121	Bachelor	1	B7101992	B	Introduction to Computer Science	Learn the basic theoretical courses of computer science, so that students can understand the software and hardware architecture of computer, the basic operation mode of the system, digital system, numerical logic, data structure, algorithm, common software package and related network applications, as well as computer virus and network Road safety, etc., and then become familiar with computer operation and integrate it with daily life, so as to lay the foundation for future exposure to information-related professional fields.	2	A	Department of Merchant Marine	SDG1,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG2,SDG3,SDG5,SDG7,SDG6,SDG4
2023	1121	Bachelor	3	B6803444	B	Production and Operations Management	Operations management is the core activity in a company, including forecasting, capacity planning, facility layout, quality management, scheduling, etc. This course provides students the basic knowledge about these issues and enables them to develop preliminary skills of applications.	3	A	Department of Transportation Science	SDG3,SDG12,SDG9
2023	1121	Bachelor	2	B71023XU	A	Marine Statistics	An introduction to statistical method for any concerned with the operation of ships. It is intended for those who have to understand information presented in statistical form and for those who wish to use statistical methods to help in analysing problems they are faced with.	2	B	Department of Merchant Marine	SDG4,SDG17
2023	1121	Bachelor	1	B6801N8U	A	Transportation	This course teaches the fundamental knowledge of transportation and each basic characteristic of transportation system.	3	A	Department of Transportation Science	SDG11
2023	1121	Bachelor	2	B68120SM	A	Statistics	Statistics is a basic subject of data analysis methods. The purpose of this course is to train students to become familiar with commonly used statistical methods and theories, so as to have a foundation for studying other related subjects. Course content this semester includes: narrative statistics, probability, probability allocation, sampling and sampling allocation, etc.	3	A	Department of Transportation Science	SDG4
2023	1121	Bachelor	1	B7111547	A	Geo-Navigation	Based on the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.2.4 The Use of Routing, this course takes the necessary knowledge and skills into account to teach students learning about the Geo-Navigation and being a recognized seafarer for Operational and Management levels. It is complying with the maritime professional competence standard of navigation on the "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 2010".	2	A	Department of Merchant Marine	SDG4,SDG8,SDG17
2023	1121	Bachelor	1	B7101NNX	B	Service-Learning Program-Campus Service(I)	Cultivate students'' maintenance of school campus cleanliness and service sentiment and mind for school teachers and students, and then expand to social and national service sentiment.	0	T	Department of Merchant Marine	SDG3,SDG5,SDG17,SDG16,SDG6,SDG4
2023	1121	Bachelor	3	B71031KI	A	Leadership and Bridge Resource Management	1. To satisfy the STCW2010 required minimum standard of competence for officers in charge of a navigational watch at the operational level on ships of 500 gross tonnage or more. 2. To have the knowledge of bridge resource management principles, including: (1) allocation, assignment, and prioritization of resources, (2) effective communication, (3) assertiveness and leadership, (4) obtaining and maintaining situational awareness.	2	A	Department of Merchant Marine	SDG3,SDG17,SDG16,SDG12,SDG10,SDG8,SDG5,SDG4
2023	1121	Bachelor	1	B6801NNX	B	Service-Learning Program-Campus Service(I)	(1) Students who participate in labor service can develop the concept and habit of service. (2) Provide teachers and students with a neat and clean environment in classrooms and public spaces.	0	T	Department of Transportation Science	SDG3,SDG6,SDG12,SDG4
2023	1121	Bachelor	1	B6811N38	A	Economics	To enable students to understand the relationship between economic activities, economic policies and financial markets, and to have the basic ability to analyze overall economic issues.	3	A	Department of Transportation Science	SDG3,SDG11,SDG16,SDG12,SDG8,SDG9
2023	1121	Master	1	M34014WF	A	Advances in Marine Phytoplankton Ecology	The students will learn the hot topics, most updated findings and advanced techniques in the marine phytoplankton and microbial ecology. They are expected to be able to apply the knowledge learnt from this course to their own researches. In addition, the students will be trained with scientific thinking and presentation skills during the course.	3	B	Institute of Marine Biology	SDG13,SDG14
2023	1121	Bachelor	2	B3B0216J	A	Analytical Chemistry Lab. (I)	Students are trained to obtain correct chemical analysis results with a rigorous attitude through practical operations, combined with academic knowledge.	1	B	Department of Bioscience and Biotechnology	SDG4,SDG6,SDG14
2023	1121	Bachelor	3	B7303E7H	A	Airport Management and Operations	Introduce the basic concepts of air passenger terminal operation and management	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Master	1	M04013YG	A	Seminar on East China Sea Issues	The objectives of this course are to understand the disputes in the East China Sea as well as perspectives on the area ' s demarcation.	2	B	Master Degree Program in Ocean Policy	SDG16
2023	1121	Bachelor	1	E4Q01EM1	B	Marine Engineering Management and Safety (I)	Learn about engine safety and management	2	A	Department of Marine Engineering	SDG4,SDG14,SDG15
2023	1121	Bachelor	1	E4Q01DE1	B	Marine Diesel Engines (1)	Learn the working principles and structure of diesel engines	2	A	Department of Marine Engineering	SDG11,SDG14
2023	1121	Bachelor	3	B76033BE	A	Japanese for Tour Guides	Learn Japanese conversation and vocabulary related to sightseeing and travel to enrich and enrich the content of Japanese conversation. Simulate sightseeing and tourism conversation scenes to train students'' communication and expression skills when they are team leaders and tour guides, and hope to be able to converse in short sightseeing Japanese conversations.	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG4,SDG10,SDG11,SDG17
2023	1121	Bachelor	1	E4Q01BR1	A	Boiler	Train students to comprehension boiler principles and boiler safety maintenance	3	A	Department of Marine Engineering	SDG4,SDG7,SDG14
2023	1121	Master	1	M33014T0	C	Aquaculture Industry Integration of Digital Transformation and Digital Marketing and Cross-domain Innovation and Entrepreneurship	This course will introduce the digitalization of intelligent aquaculture and the application of digitalized marketing technology to the traditional aquaculture industry. Internally, how to promote intelligent transformation by introducing digital tools for supply chain traceability management, improve management efficiency, and reduce costs and aquaculture waste. How to expand international digital marketing by introducing international BAP standards and intelligent cold chain warehousing, logistics and transportation technology.	2	B	Department of Aquaculture	SDG1,SDG17,SDG16,SDG13,SDG12,SDG11,SDG9,SDG8,SDG4,SDG3,SDG2
2023	1121	Doctorate	1	D6601R8B	A	Technologies for 3C Electronic Heat Dissipation	Electronic heat dissipation system defines that an electronic package device is heat transferring from heat capacity of heat source to another environment. There are two heat mechanism kinds of heat diffusion and radiation. Recently, the thermal management and control is the most important course because of chip high speed and heat flux. Thus, the design and analysis of actual thermal module is key issue in this course. And in the last, having a visit thermal module factory after school.	3	B	Department of Marine Engineering	SDG1,SDG7,SDG4,SDG5,SDG8,SDG10,SDG14,SDG9
2023	1121	Master	1	M3301H3L	A	Animal Tissue Culture	Learn related techniques of fish cell culture	3	B	Department of Aquaculture	SDG14
2023	1121	Master	1	M37013CZ	A	Natural Resource Economics	The objective of this course is for students understand how to incorporate economics in nature resource management.	3	B	Institute of Marine Affairs and Resource Management	SDG7,SDG15,SDG14,SDG12
2023	1121	Master	1	M5311I41	A	Seminar	1. To develop presentation skill. 2. To promote the interdisciplinary understanding. 3. To learn novel engineering knowledge.	1	A	Department of Electrical Engineering	SDG4,SDG8
2023	1121	Master	1	M0201A45	A	Foodborne pathogen	This course primarily covers the general description of foodborne pathogens and their mechanisms of pathogenesis, control and prevention, and detection strategies, with easy-to-comprehend illustrations. This course is an essential resource for food microbiology graduate or undergraduate students, microbiology professionals, and academicians involved in food microbiology, food safety, and food defense-related research.	3	B	Institute of Food Safety and Risk Management	SDG3,SDG14,SDG13,SDG11,SDG7,SDG6,SDG4
2023	1121	Bachelor	3	B6803N6X	A	Transportation Safety	Introducing the content and analysis methods discussed in the field of transportation safety	3	A	Department of Transportation Science	SDG3,SDG10,SDG4,SDG5,SDG11,SDG16

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2023	1121	Bachelor	3	B31031SV	A	Fish Physiology	This course aims to offer students background knowledge of fish physiology, including respiration and circulation, digestion, metabolism and growth, osmotic regulation and excretion, locomotion, reproduction, etc. Students are expected to understand major physiological functions of fish and their adaptation to different environmental conditions.	2	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG14
2023	1121	Bachelor	1	B7111547	B	Geo-Navigation	Based on the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.2.4 The Use of Routing, this course takes the necessary knowledge and skills into account to teach students learning about the Geo-Navigation and being a recognized seafarer for Operational and Management levels. It is complying with the maritime professional competence standard of navigation on the "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 2010".	2	A	Department of Merchant Marine	SDG4,SDG17,SDG8
2023	1121	Bachelor	3	B7103PGD	A	Proficiency in Survival Craft and Rescue Boat	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliances, and refers to the Model Course 1.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats and the 2010 Amendment Rules of the 1978 STCW International Convention. VI/2, the latest revised contents such as SOLAS international convention and LSA charter, taking into account the teaching of relevant necessary knowledge or skills, teaching students to understand and correctly operate and use lifeboats, rescue boats, life rafts, life jackets, immersion suits, life buoys, etc. Life-saving equipment, and familiar with the use of various survival communication equipment, distress signal transmission, first aid treatment of casualties, helicopter hoisting equipment and rescue methods, maintenance and inspection of lifeboats and rescue boats, as well as professional knowledge and experience in operating rafts in severe weather. Skills, and then master and control how individuals and all passengers on the ship can effectively avoid dangers under abnormal ship conditions, and cope with various difficulties in dangers, so as to achieve the purpose of self-rescue and rescue of others.	2	B	Department of Merchant Marine	SDG4,SDG5,SDG17
2023	1121	Bachelor	4	B6804D89	A	Financial Management	Let students understand the theories and methods of financial management and the content of financial activities in actual company operations, and cultivate students' ability to apply financial management methods to personal and corporate financial management.	3	B	Department of Transportation Science	SDG1,SDG17,SDG12,SDG9,SDG3,SDG4,SDG2,SDG5
2023	1121	Bachelor	3	B6803F0E	B	Shipping Management	Let students understand the basic elements of ocean transportation, shipping practices, shipping industry, scheduled shipping and unscheduled shipping, etc., and develop the ability to collect and analyze data to produce professional reports and presentations.	3	B	Department of Transportation Science	SDG1,SDG3,SDG4,SDG12,SDG14,SDG9
2023	1121	Bachelor	3	B6803N7H	A	Transportation Planning	Through the discussion of transportation planning procedures and the operation of transportation evaluation methods, students will strengthen their understanding of transportation systems and build their abilities in transportation planning and program evaluation.	3	A	Department of Transportation Science	SDG4,SDG5,SDG10,SDG11
2023	1121	Bachelor	3	B6803MIT	B	Marine Intelligent Transportation Systems	Introducing the concepts and practices of intelligent transportation systems, emphasizing the importance of planning and implementation in this course, so that students who take this course can not only acquire the basic concepts of intelligent transportation society (ITS), but also fully Understanding the actual operation of smart transportation systems. Cooperation is the new value chain of the Internet of Things. The Internet of Things is composed of communication networks, energy networks, and logistics networks. These networks work together in a single operating system and continue to find various ways to improve and support integrated production. These three networks are complementary and indispensable. Without communication capabilities, economic activities cannot be managed. Without energy, information cannot be obtained or transportation capabilities cannot be provided. Without logistics, economic activities cannot be managed. Promoting economic activities through the value ch	3	A	Department of Transportation Science	SDG1,SDG8,SDG4
2023	1121	Bachelor	3	B6803N7H	B	Transportation Planning	Through the discussion of transportation planning procedures and the operation of transportation evaluation methods, students will strengthen their understanding of transportation systems and build their abilities in transportation planning and program evaluation.	3	A	Department of Transportation Science	SDG4,SDG10,SDG11,SDG5
2023	1121	Bachelor	2	B68120SM	B	Statistics	Statistics is a basic subject of data analysis methods. The purpose of this course is to train students to become familiar with commonly used statistical methods and theories, so as to have a foundation for studying other related subjects. Course content this semester includes: narrative statistics, probability, probability allocation, sampling and sampling allocation, etc.	3	A	Department of Transportation Science	SDG4
2023	1121	Master	1	M710139X	A	Merchant Ship Synthesis	1. Provide broad information on the Merchant ships. 2. Provide students with advanced knowledge of seamanship.	3	B	Department of Merchant Marine	SDG3,SDG4,SDG9,SDG17,SDG16,SDG15,SDG14
2023	1121	Bachelor	1	B68012V0	B	Introduction to Industry of Transportation and Logistic	This enables freshmen in the department to have a general understanding of the department's professional fields and development directions after entering the department, and to arouse professional interests and plan professional studies as early as possible, so that future graduates can be professional and knowledgeable.	2	B	Department of Transportation Science	SDG8
2023	1121	Master	1	M710119U	A	The Analysis Technologies for Accident Causalities	The analysis technology of accident causes is currently based on the methods used by the air transport industry, such as those developed by the SRC (Safety Regulation Commission) under the EU Ministers of Transport and Defense (ATM, Air Traffic Management). The developed SOAM (Systemic Occurrence Analysis Methodology) and the HFACS (Human Factors Analysis and Classification System) adopted by the Federal Aviation Administration (FAA) are mainstream technologies. The systematic analysis methods and hierarchical architectural concepts of these two sets of technologies have made considerable contributions to clarifying the causes of air transport accidents and the causal relationships between various factors. Subsequently, the course will introduce critical value or probability analysis techniques and how these methods can be applied to the analysis of accident causes. The main goal of this course is to enable students to understand and understand what techniques can be used to analyze the human factors of maritime accidents and how to apply these methods. I hope it can bring some new concepts and inspirations to students in analyzing the causes of accidents.	3	B	Department of Merchant Marine	SDG4,SDG14,SDG16
2023	1121	Master	1	M710119V	A	Project Evaluation	This course mainly introduces various evaluation methods and practical applications of plan (or plan, strategy, action) evaluation, and trains graduate students to understand the skills of plan evaluation and to handle them appropriately when facing decision-making problems. This course systematically organizes and introduces various evaluation methods from traditional to modern, from single criterion to multiple criteria, and from qualitative (qualitative) to quantitative (quantitative).	3	B	Department of Merchant Marine	SDG8,SDG14,SDG11,SDG12,SDG13,SDG9
2023	1121	Bachelor	1	B52014EG	A	Introduction to water-wave and tidal-wave	Introduce the theory and application of the two most important forces in coastal engineering (waves and tides) in order to let students have a certain degree of popular science concepts.	2	B	Department of Harbor and River Engineering	SDG4

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	3	B5203ZBD	A	Sustainable Environment Planning and Design	Course introduction Sustainable development and evolution Case introduction Sustainable planning case Dam removal Dam removal Dam removal LID midterm exam LID LID Ecological construction method Ecological construction method Ecological construction method Ecological construction method Ecological construction method End-of-period group report	3	B	Department of Harbor and River Engineering	SDG11,SDG13
2023	1121	Bachelor	3	B5203U37	A	Applied Hydrology	The purpose of this course is to analyze engineering measures to prevent and control water and soil disasters. The course is divided into two parts: watershed hydrological analysis and watershed hydraulic analysis. The content of watershed hydrological analysis covers: frequency analysis, watershed hydrological analysis methods at different scales, urban hydrology, runoff analysis in areas without flow records, numerical elevation models and geographic information system applications. The content of watershed hydraulic analysis covers: quantitative flow analysis, distributed runoff routing, watershed erosion and river channel erosion, earth-rock flow, hydraulic model theory and sediment movement model. This semester's course focuses on the hydrological analysis theory of watersheds. Each topic in the course first explains the basic theory, and then provides appropriate analysis and calculation examples, so that students can apply the theory of hydrology and hydraulics to carry out engineering analysis and design work.	3	B	Department of Harbor and River Engineering	SDG4,SDG9,SDG13,SDG11
2023	1121	Bachelor	1	E4D01992	A	Introduction to Computer Science	Learn the basic theoretical courses of computer science, so that students can understand the software and hardware architecture of computer, the basic operation mode of the system, digital system, numerical logic, data structure, algorithm, common software package and related network applications, as well as computer virus and network Road safety, etc., and then become familiar with computer operation and integrate it with daily life, so as to lay the foundation for future exposure to information-related professional fields.	2	A	Department of Merchant Marine	SDG1,SDG8,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG7,SDG2,SDG4,SDG5,SDG6,SDG3
2023	1121	Bachelor	1	E4Q01K1J	B	Ship's Construction & Stability	(This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW 1995 for the Competence Marine Engineering at the Operational Level.) ◦ (This course also provides the background knowledge in: ship construction.)	2	A	Department of Marine Engineering	SDG8,SDG9,SDG17
2023	1121	Doctorate	1	D5301V94	A	Neural Networks	To gain comprehensive knowledge of neural network model, both in theory and applications.	3	B	Department of Electrical Engineering	SDG1,SDG4,SDG14,SDG9,SDG5,SDG3
2023	1121	Master	2	M0202I47	A	Seminar	Train graduate students in their ability to collect, organize, and present documents, and strengthen cross-field learning and interaction.	1	A	Institute of Food Safety and Risk Management	SDG3,SDG5,SDG10,SDG7,SDG4
2023	1121	Master	1	M02013NS	A	Advances in Applied Microbiology	This course is designed for students who are interested in the latest research of microbial environmental stress response and application of natural antibacterial agents.	3	B	Institute of Food Safety and Risk Management	SDG3,SDG7,SDG14,SDG12,SDG6,SDG4
2023	1121	Master	1	M3101C35	A	Advanced Marine Ecology	Marine ecology is the science that studies marine organisms and their relationship with the marine environment. It is a branch of ecology. Its main content is to explore individual organisms, populations, communities and the entire marine ecosystem. Therefore, it is about the reproduction of various marine organisms. Growth, habitat nutrition, quantity distribution and their relationship with organic and inorganic environmental factors, the characteristics and rules of the natural combination of marine biological communities, the composition of different ecological groups (plankton, nekton, benthic organisms, etc.), Distribution, quantity changes and their relationship with the marine environment all belong to the scope of marine ecology. Accordingly, this course will be introduced from four aspects: marine environment types, ecological processes, ecosystems (including estuaries, reefs, oceans, deep seas, coral reefs, etc.) and impacts (including important fishery organisms) to enhance students' understanding of the ocean. Understanding ecological processes and impacts and their relevance to the fisheries industry.	3	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1121	Master	1	M31011TN	A	Advanced Ecosystem-based Fisheries Management	This course teaches the basic concepts and potential research topics of fishery management in the Department of Ecology, in order to understand the meaning of fishery management in the Department of Ecology and the development trend of fishery management in the future.	3	B	Department of Environmental Biology and Fisheries Science	SDG11,SDG14,SDG12
2023	1121	Bachelor	3	B6803N6X	B	Transportation Safety	1. To understand the principles and theories of transportation safety 2. Design and analysis of algorithms	3	A	Department of Transportation Science	SDG3,SDG11,SDG9
2023	1121	Master	2	M7112J25	A	Thesis	This course trains graduate students to integrate the professional courses they have studied and discuss research directions with their supervisors to complete their master's thesis. The guidance includes guidance and consultation on the formulation of thesis topic, guidance on collecting and reading relevant literature, selection of research methods, presentation of research results, and methods of writing thesis. In addition, this course emphasizes training students' logical thinking skills, time management, research execution, academic writing and publishing academic papers.	3	A	Department of Merchant Marine	SDG1,SDG5,SDG10,SDG11,SDG3
2023	1121	Master	1	T4Y014DY	A	Marketing Management in Transportation Industry	1. Help students understand the theoretical knowledge of marketing management and related practical issues. 2. Cultivate students' ability to analyze and solve marketing management problems. 3. Cultivate students to understand marketing issues related to the transportation industry. 4. Interactive and participatory learning--Learn marketing-related issues from partners.	2	B	Department of Transportation Science	SDG10,SDG12
2023	1121	Bachelor	1	B6801N8U	B	Transportation	This course teaches the fundamental knowledge of transportation and each basic characteristic of transportation system.	3	A	Department of Transportation Science	SDG11
2023	1121	Bachelor	3	B6803444	A	Production and Operations Management	Operations management is the core activity in a company, including forecasting, capacity planning, facility layout, quality management, scheduling, etc. This course provides students the basic knowledge about these issues and enables them to develop preliminary skills of applications.	3	A	Department of Transportation Science	SDG3,SDG9,SDG12
2023	1121	Bachelor	3	B3103Q5F	A	Fisheries Law and Regulation	Fisheries regulations are an important means of fishery management and an important part of sea area regulations. Fisheries regulations are used to achieve the purpose of fishery management. This course explains fishery regulations from the perspective of fishery, allowing students to understand the spirit and purpose of domestic and foreign fishery regulations. , and the development trends of domestic and foreign fishery regulations.	2	A	Department of Environmental Biology and Fisheries Science	SDG4,SDG14,SDG8

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2023	1121	Bachelor	2	B31022DO	A	Environmental Biology 1	The goals of environmental biology are: (1) to learn how nature works (2) to understand how we interact with the environment (3) to find ways to deal with environmental problems and to live more sustainably.	2	A	Department of Environmental Biology and Fisheries Science	SDG4,SDG11,SDG17,SDG13
2023	1121	Master	1	M71010QH	A	Computational Navigation	The science of Navigation has entered the electronic era with a great deal of enthusiasm and energy. Man-made sateliite have replaced the stars in the attention of the moderd navigator. The science is moving forward at a fast rate. But, during this time of great change, we have not perhaps paused to think how the classical methods of navigation seems to be deliberately designed to avoid the use of the calculus. For this reason methods are still in use which are only approximations.	3	B	Department of Merchant Marine	SDG1,SDG2,SDG3,SDG7,SDG9,SDG11,SDG13,SDG15,SDG17,SDG16,SDG14,SDG12,SDG10,SDG8,SDG6,SDG5,SDG4
2023	1121	Bachelor	2	B3102C96	A	Oceanography	This course teaches students to apply a variety of scientific knowledge to explore the occurrence, development, change and utilization of physical, chemical, biological, geological and other processes and phenomena in the ocean, as well as their development and utilization. It is the teaching goal of this course.	2	A	Department of Environmental Biology and Fisheries Science	SDG4,SDG14,SDG13
2023	1121	Bachelor	1	B3111M97	A	Calculus	It is hoped that students can learn from the complete basic mathematics knowledge of calculus how to use mathematical language to think, and establish the basic attitude and ability to complete analysis and solve problems according to correct theories and practices. --Based on the concept of limit, learn the concepts of characterization of functions, calculation of derivative functions and definite integrals; --Learn how to apply function characterization to solve application problems -- Understand how to apply integral theory to solve summation problems, calculation of common geometric quantities and other related problems -- And be able to learn the attitude of careful thinking and verification that is necessary in mathematical science	3	A	Department of Environmental Biology and Fisheries Science	SDG4
2023	1121	Bachelor	2	B3102606	A	Organic Chemistry	This course begins from the principle of electron movement and progressing to complex organic compounds. However, this course is also emphasis on explaining the fundamental mechanistic similarities of reactions. After the students take this elective course should increasing their knowledge of organic chemistry.	3	B	Department of Environmental Biology and Fisheries Science	SDG2,SDG10,SDG6
2023	1121	Bachelor	2	B310233B	A	Introduction to Aquaculture	Through the history of aquaculture development and the actual trends of the industry, supplemented by professional perspectives, scholars can acquire the overall concepts and basic operating theories of aquaculture in this course.	2	B	Department of Environmental Biology and Fisheries Science	SDG2,SDG15,SDG14
2023	1121	Bachelor	1	B0101806	A	Introduction to Jurisprudence	This course hopes to introduce students to basic legal concepts through teacher lectures, reports and discussions, and thus prepare them for further learning in various legal fields in the future. In addition to introducing general issues such as the meaning, interpretation and application of law, the course will also explore the study of law, my country's legal system and aspects related to law and social life. In addition to lectures and class discussions, reports will also be used to enable students to apply what they have learned and practice their skills in collecting data and conveying information.	2	A	Bachelor Degree of Ocean Law and Policy	SDG7,SDG10,SDG16
2023	1121	Bachelor	1	B01111RY	A	Civil Law: General Part	The objective of this course is to help students grasp solid concept of the general principles of civil code regulations. This class will also focus on various civil code case studies as well as intra-class discussions on related hypo exercise.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG5,SDG10
2023	1121	Bachelor	4	B5204061	A	Site Investigation	Enable students to learn the basic principles and methods of relevant site investigations and their application in related projects (such as deep excavation projects, slope engineering, Haipu land development, disaster investigation, etc.), and use project cases to discuss and illustrate, in order to enable students to Understand the importance of site survey, and then integrate previous relevant professional courses to implement a complete site survey, so that land use can better consider its potential and suitability, so as to prevent or reduce the occurrence of engineering disasters.	3	B	Department of Harbor and River Engineering	SDG4,SDG13
2023	1121	Bachelor	3	B01034O1	A	Cases of IP laws and Fair Trade Act (I)	This course will equip students with the knowledge of major IP laws and learn the legal issues arise facing the technological advancement.	1	B	Bachelor Degree of Ocean Law and Policy	SDG1,SDG7,SDG3,SDG8,SDG10,SDG12,SDG16,SDG17,SDG13,SDG11,SDG9
2023	1121	Bachelor	1	E4A01V3K	B	Collision Regulation & Watchkeeping	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Charter, and complies with the International Maritime Organization (IMO) Model Course 7.03-1.1. 1 (Celestial Navigation) and Model Course 7.01-1.2.1 (Position determination in all conditions), taking into account the teaching of relevant necessary knowledge or skills, the following teaching content is arranged: 1. International maritime ship collision avoidance 2. Understand international collision avoidance rules 3. Ship navigation safety measures 4. Navigation lights and audio signals	2	A	Department of Merchant Marine	SDG4,SDG17,SDG8,SDG10,SDG11,SDG15,SDG9
2023	1121	Bachelor	2	E4A021R2	A	Ship Handling and Simulation	This course complies with the International Maritime Organization (IMO) Model Course 7.03-1.3 Use of Radar and ARPA to Maintain Safety of Navigation and (IMO Model Course No.1.07 and STCW 1995 Regulation 1 /12), and 1.2.1 Knowledge of the Collision Regulation. 1.2.1.1 Content, application and intent of COLREG 1972; 1.2.2 Principles in Keeping a Navigational Watch Deck duty; 1.1.3 Electronic Systems of Position Fixing and Navigation Electronic positioning and navigation systems, etc.; taking into account relevant necessary knowledge or To teach skills, the following teaching content is arranged. Students can learn the following matters by using the ARPA simulator and ship maneuvering simulator: 1. Be familiar with various equipment and functions of the bridge 2. Operate various equipment 3. Familiarity and application of rudder orders and clocks 4. Observe the dynamics between ships 5. Practice ship avoidance	2	B	Department of Merchant Marine	SDG4,SDG11,SDG14,SDG17,SDG12,SDG9
2023	1121	Bachelor	3	B5203M55	B	Structure	Let students understand the composition and characteristics of various structures, as well as the corresponding theories and analysis methods of various structure-related issues, so that students can have the basic ability to engage in structural analysis in the future.	3	A	Department of Harbor and River Engineering	SDG8,SDG9

THEY EAR	AYEA RSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Master	1	M02013AS	A	Food Safety Supply Chain	In this class, students are expected: 1. To gain the knowledge in food safety and supply including the concept and practice of food supply chain, and food hygiene safety management. 2. To increase the ability of food and ingredients choose and safety exam, including the process of food purchase and sanitation examination. 3. To improve the skills of food supply chain and logistics management, including food fresh-keeping and storage technology.	3	A	Institute of Food Safety and Risk Management	SDG9
2023	1121	Bachelor	2	B3802472	A	Ecology	Ecology is a branch of biology that studies the interactions among organisms and their environments. The aim of this course is to provide students with the concepts in ecological sciences. The lecture also includes the significant ecological issues.	3	A	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG15,SDG13,SDG14
2023	1121	Bachelor	4	B3104ZF3	A	Global Environment Change	Global environmental change is a dangerous problem that must be faced by human beings for survival and development. The ongoing and developing international and regional actions will profoundly affect everyone's life and career. As a modern person, you must have the correct basic knowledge of global change and be aware of it. The connotation of the main topics is discernible and narrative. This course systematically introduces the issues of global environmental change. Through issue-oriented curriculum design, it introduces the scientific basis of the main issues of global change and the issues involved in the humanities, society, economy, politics and other levels. It is especially relevant to Taiwan's local global issues. Discuss the impact, adaptation and response of changes, and cultivate students' narrative ability on local environmental change issues.	2	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1121	Master	1	M7111I38	A	Special Topics in Merchant Marine	1. Reading and comprehension to special topics in Merchant Marine field. 2. Presentations to the special topics in Merchant Marine field.	1	A	Department of Merchant Marine	SDG4,SDG5,SDG17
2023	1121	Master	1	M31014O3	A	Classification and assemblage of larval fish	This course focuses on experimental and skills of larvae identify. The morphology method is the important lecture that will be introduced clearly. Expect students to understand the essential knowledge of the field and learn how to investigate the relationship between hydrography conditions and fish resources.	3	B	Department of Environmental Biology and Fisheries Science	SDG14
2023	1121	Doctorate	1	D310125O	A	Seminar in Fisheries Oceanography	The characteristic of this course is to use the step-by-step and comprehensive explanation of marine biological and non-living environmental factors, and cooperate with the marine research vessel to conduct practical exercises on marine structure and fishery production, so that students can understand the location and environment of fisheries in the vast ocean. The main reason is that in class, through the setting of relevant topics, the establishment of a database on the topic and the study of related papers, through the training of problem solving methods and logical thinking models, students can deepen their overall concept and application ability of marine fishery science. And instill in them the ability to maintain, manage, and predict fisheries and the environment.	3	B	Department of Environmental Biology and Fisheries Science	SDG2,SDG14,SDG13,SDG9
2023	1121	Bachelor	1	B3101Q70	A	Introduction to Fishery Science	This course aims to establish that students with an understanding of the role of fisheries scientists in the 21st century.	2	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG11,SDG14,SDG13
2023	1121	Doctorate	1	D3101S70	A	Processing and Fisheries Application of Satellite	To learn the advanced techniques for remote sensingand its application on commercial fishery and oceanography.	3	B	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1121	Bachelor	3	B0103SR1	A	General Topics on Marine Resources	The ocean is one of Earth""s most valuable natural resources. It not only adjusts the global weather but also provides food in the form of fish and shellfish to people. It""s used for transportation for travel and shipping. For the human-centered perspective, ocean supports the development of civil society. Students are expected to learn ocean resources, the interaction of human uses and ocean resources, and the connection of ocean and society.	2	B	Bachelor Degree of Ocean Law and Policy	SDG14
2023	1121	Bachelor	4	B01043BA	A	Case Studies in Criminal Law and Criminal Procedure Law (1)	This course aims to help students make use of the knowledge they have recently learned in the General Principles of Criminal Law and Special Provisions of Criminal Law, and learn how to think and solve specific cases through the practice of relevant criminal cases.	2	B	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1121	Bachelor	3	B01034NZ	A	IP laws and Fair Trade Act (I)	This course will equip students with the knowledge of major IP laws and learn the legal issues arise facing the technological advancement.	2	B	Bachelor Degree of Ocean Law and Policy	SDG1,SDG9,SDG12,SDG17,SDG16,SDG13,SDG11,SDG8,SDG3,SDG7
2023	1121	Bachelor	2	B520293B	A	Fluid Mechanics (I)	This course is to provide the physical and mechanic concepts of fluids for students majored in engineering fields. The fluid properties and fluid motions and dynamics are also introduced in the course.	3	A	Department of Harbor and River Engineering	SDG6,SDG7,SDG14
2023	1121	Bachelor	3	B5203IEK	A	Special Topic Research	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course, students can acquire the following abilities: 1. The ability to apply professional knowledge in river and sea engineering 2. The ability to design operations and data analysis of experiments 3. The ability to communicate and express.	2	B	Department of Harbor and River Engineering	SDG8,SDG9
2023	1121	Bachelor	1	B9D01968	7	English	This course is designed (1) to enable students to deal effectively with sophisticated reading materials, (2) to guide them in the development of conscious, reflective attitude toward reading, (3) to help them select the proper skills or strategies to solve each reading problem, and (4) to enlarge their English vocabulary.	2	A	Institute of Applied English	SDG1,SDG7,SDG14,SDG13,SDG4,SDG15
2023	1121	Bachelor	2	E4A02V78	A	Ship Compass	1. Make students aware of the pointing principle of gyrocompass/the working principle of magnetic compass 2. Various errors and corrections of magnetic compass/gyro compass 3. Correction of errors when using the compass for observation 4. The impact and detection of gyro compass errors transmitted to sensors such as radar/ARPA/ECDIS/steering gear	2	A	Department of Merchant Marine	SDG4,SDG14,SDG12
2023	1121	Master	1	M37014FV	A	Ocean Policy and Administration	• Understand the three major aspects of my country’ s maritime policy: maritime legislation, maritime administration and maritime law enforcement, and master my country’ s maritime policy system • Understand the application of public policy to ocean affairs • Understand important documents related to domestic and international ocean policies. • Provide critical thinking on our country’ s policies • Master national examination content	3	B	Institute of Marine Affairs and Resource Management	SDG14,SDG16
2023	1121	Bachelor	3	B5303M30	A	Introduction to Programming Lab.	1. Understand C language programming concepts. 2. Understand programming thinking skills and logic concepts. 3. Understand the meaning and grammatical rules of program code.	1	B	Department of Electrical Engineering	SDG3,SDG4,SDG9,SDG12,SDG16,SDG17,SDG14,SDG11,SDG8

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2023	1121	Bachelor	1	B38012SX	A	Programming and Data Processing	Through program design logic and syntax, construct a data processing model and create the required application forms. In this course students will learn and discuss 1. Programming: including programming logic and structure, and designing solutions through a problem-oriented approach. 2. Data processing: including data planning and data format processing to make effective use of data. 3. Programming and data processing: Integrate programs and data operations to build the required applications. 4. Other assistive technologies: including discussion of other input or output modes.	2	A	Bachelor Degree Program in Marine Biotechnology	SDG9
2023	1121	Master	1	M33010GA	A	Special Topics on Fish as a Model Animal	Zebrafish has become an emerging vertebrate genetic system. This course first introduces the important genetic tools and methods of zebrafish research, allowing students to understand that zebrafish can not only be used as a model animal for the study of farmed fish, but also as a human model. Disease model animals to accelerate drug development. By studying reports and discussing important documents on related research, we will have a deeper understanding of the important performance of fish as a model animal.	3	B	Department of Aquaculture	SDG1,SDG14,SDG9,SDG4,SDG2
2023	1121	Bachelor	4	B57040UF	I	Computer Projects (Ⅱ)	The goal is to let students (1) develop service-oriented software projects by following software engineering processes; or (2) learn computational biology by doing it.	3	B	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	1	B5701M33	B	Introduction to Programming	In this course, we will learn how to write computer programs in the C programming language.	3	A	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	4	B7204N6V	B	Mechanical and Mechatronic Engineering Laboratory (Ⅱ)	This course is designed for the under-graduate students to experimentally understand the fundamental concepts of solid mechanics and thermal-fluid they learned in the lecture courses before (including statics, dynamics, mechanics of materials, thermodynamics, fluid mechanics and heat transfer). The main purpose of this course is to familiarize students with various experimental methods and techniques of solid and thermal-fluid mechanics, and through the mutual confirmation of theory and experiment, allow students to have a deeper understanding of the fundamental concepts of mechanical engineering, and to train the students''''''' practical ability of experiments.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Master	1	M31012JZ	A	International Relations and fisheries cooperation	International relations refers to the multi-level and multi-dimensional relationships between various sovereign states and other "entities" (including countries and international organizations) in the world system, including: political, military, diplomatic, economic, fishery... and other levels. In today's technologically advanced world, fishery activities are no longer limited to fishing within a certain country, but often involve relationships between two or more countries. Therefore, the purpose of this course is to allow students to understand the basic theories of international relations. The current status of relations and fishery activities with Taiwan's neighboring countries, as well as Taiwan's participation in international fisheries organizations.	2	B	Department of Environmental Biology and Fisheries Science	SDG16,SDG17
2023	1121	Bachelor	2	B3102191	A	Celestial Navigation	1. Introduce the application of astro-navigation and astro-navigation 2. New knowledge of science and technology in today''s astro-navigation 3. Gain insight into the basic application of using observations of the sun, moon, stars and other celestial bodies to determine the ship''s position 4. Satisfied to participate in the teaching of the fishery administration system or maritime patrol system nautical personnel examination 5. Navigation applications	2	B	Department of Environmental Biology and Fisheries Science	SDG11,SDG14
2023	1121	Bachelor	2	B3102640	A	Introduction to Administrative Laws	Administrative law is the general term for domestic public law related to the operation of national administrative power. Administrative law involves various laws that are applicable when administrative agencies perform their duties. Through the study of this course, students can understand what happens when national administrative agencies exercise their powers in accordance with the law. legal norms for various social relations, as well as the mutual rights and obligations between the people and administrative agencies.	2	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG16,SDG10
2023	1121	Bachelor	2	B3102Q28	A	Principles of Fishing Boat	Fishing boats are the most important facilities in marine fisheries. Without fishing boats, it is almost impossible to engage in fishing activities at sea. Therefore, fishery practitioners must understand relevant knowledge and skills such as fishing boat construction and equipment, ship operation, maintenance... and how to maintain them during sea voyages. Regarding the safety of fishing vessels, this course will introduce the basic structure of fishing vessels, on-board instruments, ship positioning systems, and other shipping equipment when they are static, as well as basic ship maneuvering when they are dynamic, and emergency response to disasters at sea, allowing students to understand the skills required to work on ships.	2	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG9
2023	1121	Bachelor	1	B57011RQ	B	Introduction to Computer Science	Introduction to the computer architecture, the application of software, the major components of software, the operating systems and the computer networks and internet.	3	A	Department of Computer Science and Engineering	SDG4,SDG7
2023	1121	Bachelor	4	B57040UF	D	Computer Projects (Ⅱ)	Students participating in data science will learn to process big real-world data. There will be two types of data available. The first type of data is nautical data. We will be gathering and processing a few terabytes of information, in attempt to derive statistics, catch efforts, and estimates on the marine resources. The second is financial data. By monitoring fluctuations in derivatives and monetary instruments, we try to estimate the future value of contracts which depend on these underlying. Participated students of information security project will learn HTML syntax and related techniques of Javascript, which helps to detect malicious web pages on the Internet and establish high interactive dynamic client-side honeypots for detecting unknown attack variations.	3	B	Department of Computer Science and Engineering	SDG1,SDG8,SDG4,SDG9,SDG12,SDG17,SDG14,SDG11
2023	1121	Bachelor	2	B5702T0E	B	Probability Theory	Probability theory is the basis of statistical analysis. The purpose of this course is how to explain the probability of events and calculate the probability, and how to make appropriate decisions about uncertain events. The main outline is to learn the basic concepts and principles of probability, understand the "probability distribution" model of event occurrence and the rules followed by calculating probability, as a tool for data analysis and a basis for decision-making.	3	A	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	3	B5703N54	B	Database Management System	This course provides an introduction to fundamental concepts in the design and implementation of database systems. Topics to be covered include: overview of database system, data modeling using the Entity-Relationship (ER) Model, the Enhanced Entity-Relationship (EER) Model, SQL, and Normalization.	3	B	Department of Computer Science and Engineering	SDG9
2023	1121	Doctorate	1	D31011ZH	A	Population Ecology	This course is designed to introduce quantitative population dynamics. Students will learn the most common mathematical models in population and community ecology. Each chapter follows the structured format: model presentation and predictions, model assumptions, model variations, empirical examples, and problems.	3	B	Department of Environmental Biology and Fisheries Science	SDG14,SDG15
2023	1121	Bachelor	1	B53114EE	A	General Physics	An introduction to freshman physics, specifically in the topics of oscillation, mechanical and acoustic waves, electrostatics and direct current circuits.	2	A	Department of Electrical Engineering	SDG4
2023	1121	Master	1	M37010H4	A	Case Study of International Fisheries Assessment	Specific scientific papers or reports would be selected for discussion. It is expected that students would be able to understand the international fisheriess stock assessments, management models, and furture development. It aims to train the students indenpendent thinking, analysis and evaluation ability.	3	B	Institute of Marine Affairs and Resource Management	SDG14
2023	1121	Master	1	M3701H8J	A	International Law of the Sea	This course provides students a good understanding of the United Nations Convention on the Law of the Sea (UNCLOS), including relevant rights and obligations of States in various maritime zones. By reading and interpreting legal materials, students are able to provide critical thinking on the legality of activities on the sea and give insights into ocean policy.	3	B	Institute of Marine Affairs and Resource Management	SDG14,SDG17

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2023	1121	Bachelor	3	B5303850	A	Introduction to Modern Physics	Understand the theoretical concepts of modern physics, lay the physical foundation of modern science and technology, and apply knowledge related to the development of semiconductor integrated circuits, nanoscience and optoelectronics.	3	B	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Master	2	M5312I41	A	Seminar	1. To develop presentation skill. 2. To promote interdisciplinary understanding. 3. To learn novel engineering knowledge.	1	A	Department of Electrical Engineering	SDG4
2023	1121	Bachelor	1	B9D01968	V	English	This course is designed to help learners build vocabulary, improve reading comprehension, review and reinforce application of grammar, develop conversational skills, and raise cultural awareness.	2	A	Institute of Applied English	SDG4,SDG17
2023	1121	Bachelor	1	B9D01968	6	English	The goal of Freshman English is to familiarize you with the fundamental skills needed to help you become an efficient learner in reading and vocabulary (this semester) and speaking and listening (next semester). In addition to the course handouts, valuable resources (both on- and off-line) will be introduced and various learning tasks have been prepared to encourage you to build up an active learning attitude for pursuing ongoing advancement of your English ability in an independent and effective manner.	2	A	Institute of Applied English	SDG1,SDG9,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG8,SDG3,SDG5,SDG6,SDG7,SDG4,SDG2
2023	1121	Bachelor	3	B7203635	B	Automatic Control Systems (1)	The objective of this course is to apply knowledge of mathematics and engineering to analyze and design a feedback control system. Students should learn to analytically determine a control system’ s stability and performance, and design a control system to meet a set of specifications. Develop an understanding of the elements of classical control theory: the concept of feedback and its properties, the concept of stability, and the different tools used to analyze these properties.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	1	B7201L6L	A	General Chemistry(I)	This course emphasizes the basic theories and definitions in the field of chemistry, and cooperates with the concept of integrating teaching and learning to jointly understand the logical concepts of life sciences with chemical knowledge and build students' ability to study scientific English. For details, please refer to: www.chem.ntou.edu.tw	2	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	4	B57040UF	K	Computer Projects (II)	Use networks, embedded systems and sensing technologies to design and implement smart sensing and identification application systems.	3	B	Department of Computer Science and Engineering	SDG4,SDG12
2023	1121	Bachelor	1	B5701M30	B	Programming Lab.	In this course, we will practice various programming techniques in the C programming language.	1	B	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	2	B57022TS	A	Python Programming Language	In this course, students are introduced to computer programming using Python and various Python libraries.	3	B	Department of Computer Science and Engineering	SDG4
2023	1121	Master	1	M3101L01	A	Advanced Detection of Fish School	The teaching goal of this course is to use the technology and information of advanced fishery science and the research and analysis of the theory to grasp the distribution dynamics of fish stocks as the basis for fishery management.	3	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG12,SDG14
2023	1121	Bachelor	1	B7201083	B	Engineering Graphics	Engineering drawings are the primary communication tools for engineers in the industry. This course is based on the CNS national standards. Teaching the engineering projection principle and view representation method, Enable students to have the ability to map and draw.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	1	B7211M97	B	Calculus	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	4	B5704N59	A	Seminar	The course mainly allows students to understand the latest information research directions. The invited speech topics include understanding current affairs issues and understanding the impact of information engineering technology on the environment, society and the world. In addition, a special lecture on gender equality is arranged every academic year to enable students to understand the importance of gender equality.	1	A	Department of Computer Science and Engineering	SDG9
2023	1121	Bachelor	3	B7203635	A	Automatic Control Systems (1)	The objective of this course is to apply knowledge of mathematics and engineering to analyze and design a feedback control system. Students should learn to analytically determine a control system’ s stability and performance, and design a control system to meet a set of specifications. Develop an understanding of the elements of classical control theory: the concept of feedback and its properties, the concept of stability, and the different tools used to analyze these properties.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG9,SDG11
2023	1121	Bachelor	3	B7203T74	B	Mechanism	Mechanism is the basic element of all machines. Understanding the types of various transmission mechanisms and their application scenarios, and learning and understanding of mechanism analysis methods are the basis of machine design. This course is an introductory course in the field of mechanical design. It focuses on applying the basic subjects studied in the freshman and sophomore years (such as statics, dynamics, calculus, engineering mathematics, etc.) to the understanding of the motion characteristics of the mechanism and the use of various methods. Movement analysis of organizations. Specific teaching theme goals include: (1) Understand the composition of the mechanism and analyze its movement characteristics; (2) Conduct motion analysis such as position, speed, acceleration, etc. for the linkage mechanism; (3) Learn the motion planning and contour design of the cam mechanism; (4) Learn the meshing principles of gear mechanisms and the motion analysis of gear systems; (5) Lay the theoretical foundation required for mechanism design.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Master	1	M0401804	A	The Legal Methodology	Through the teaching of jurisprudence and method, let the students have a more comprehensive understanding of law	2	B	Master Degree Program in Ocean Policy	SDG4,SDG16,SDG10
2023	1121	Master	1	M0401C65	A	Ocean Policy	Since marine policy generally applies to all affairs as far as marine activities are concerned, this course aims to provide an introduction to various disciplines involved in marine policy. In addition, it is also proposed to introduce Taiwan’ s marine administrative framework and policy objectives.	2	A	Master Degree Program in Ocean Policy	SDG1,SDG9,SDG17,SDG16,SDG14,SDG13,SDG12,SDG11,SDG10,SDG8,SDG3,SDG5,SDG6,SDG7,SDG4,SDG2
2023	1121	Master	1	M9D010YQ	A	Current Research in Writing	This course is designed to provide students with a thorough understanding of research in teaching writing. It will cover a range of topics, including the relationship between second language acquisition and second language writing, academic writing, second language writing process, second language writing instruction, responding to writing, evaluating writing, revision, and technology in the writing classroom. Participants in the course will learn how to design, teach, evaluate, and give feedback to students’ writing by using the concepts and strategies learned from the course. Participants will be asked to read and respond to the texts and be ready to join class discussions. At the end of the semester, students will need to submit an integrative review of literature in their interested areas.	3	B	Institute of Applied English	SDG4
2023	1121	Bachelor	2	B5312P18	A	Lab for Electronics	Training the students in experiments and increaseing the understanding of electronics.	1	A	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B5312P18	B	Lab for Electronics	Training the students in experiments and increaseing the understanding of electronics.	1	A	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Bachelor	3	B5303M33	A	Introduction to Programming	1. Understand C language programming concepts. 2. Understand programming thinking skills and logic concepts. 3. Understand the meaning and grammatical rules of program code.	3	B	Department of Electrical Engineering	SDG3,SDG9,SDG12,SDG16,SDG17,SDG14,SDG11,SDG8,SDG4

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2023	1121	Bachelor	1	E4Q01EM1	A	Marine Engineering Management and Safety (I)	Improve the technical level of senior seafarers, so that the engineers assigned to serve as engineers and above can meet the requirements of A-III/1,2 of the International Convention on the Training, Certification and Duty Standards of Engineers (STCW CODE)	2	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	1	B7201NNX	A	Service-Learning Program-Campus Service (I)	Cultivate students'' virtues of responsibility, self-discipline, diligence, service, and mutual assistance and cooperation.	0	T	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	1	B57011RR	B	Laboratories for Introduction to Computer Science	Study in conjunction with the main course "Introduction to Computers" and use the method of computer practice to gain a deeper understanding of how each unit of the main course is applied in actual computer programming.	1	B	Department of Computer Science and Engineering	SDG4,SDG8,SDG9
2023	1121	Bachelor	3	B8103S6J	A	Satellite Image Processing	Guide students to read, process and analyze satellite image data. Explain the principles and methods of satellite image analysis and implement them using software tools.	3	B	Department of Marine Environmental Informatics	SDG4,SDG17,SDG11
2023	1121	Master	1	M83012XV	A	Phytoplankton Physiological Ecology	Introduction of phytoplankton physiological ecology and its application in the marine phytoplankton ecology	3	B	Institute of Marine Environment and Ecology	SDG4,SDG14
2023	1121	Bachelor	1	B9500Y51	B	Internship	1. Provide specifications for the focus and methods of teacher training, university internship guidance, professors' guidance, and guidance of teachers and students. 2. Provide guidance and planning for teachers and students to understand the education internship course. 3. Contribute to communication between teacher training universities and educational internship institutions. 4. Carry out effective educational internship course implementation.	4	A	Teacher Education Center	SDG4
2023	1121	Bachelor	3	B57030OI	A	Graph algorithms	To learn techniques for designing and analyzing graph algorithms	3	B	Department of Computer Science and Engineering	SDG4,SDG9
2023	1121	Bachelor	4	B57040UF	J	Computer Projects (Ⅱ)	To learn research methodlogies in designing algorithms for solving theorectical or practical problems.	3	B	Department of Computer Science and Engineering	SDG4,SDG9
2023	1121	Bachelor	1	B5711M97	B	Calculus	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics.	3	A	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	2	B5702T0E	A	Probability Theory	Probability theory is the basis of statistical analysis. The purpose of this course is how to explain the probability of events and calculate the probability, and how to make appropriate decisions about uncertain events. The main outline is to learn the basic concepts and principles of probability, understand the "probability distribution" model of event occurrence and the rules followed by calculating probability, as a tool for data analysis and a basis for decision-making.	3	A	Department of Computer Science and Engineering	SDG4,SDG5
2023	1121	Bachelor	1	B5701M33	D	Introduction to Programming	This course provides an introduction to computer science using the C programming language. It is a programming course.	3	A	Department of Computer Science and Engineering	SDG4,SDG10
2023	1121	Bachelor	3	B570339Q	A	Computer System Design	1.Introduce the concepts relating to Reduced Instruction Set Computer (RISC) organization. 2.Expose the basic relationships that exist among the internal components of the computer system and their interactions. 3.Discuss reduce instruction set and the characteristics, addressing modes and formats of the instruction. 4.Design micro-programmed control unit. 5.Implement the RISC computer on an FPGA.	3	B	Department of Computer Science and Engineering	SDG4,SDG12
2023	1121	Bachelor	2	B5302S60	A	Linear Algebra	Introduction to concepts, principles and methods of linear algebra, which includes matrices, determinants, vector spaces, orthogonality, and eigenvalues.	3	A	Department of Electrical Engineering	SDG4
2023	1121	Master	1	M04014NP	A	Ocean, Culture and Intellectual Property Laws(I)	This course helps students to learn the basic history of oceanic cultures and focus on the relevant IP legal issues.	2	B	Master Degree Program in Ocean Policy	SDG7,SDG11,SDG13,SDG17,SDG12,SDG9,SDG8
2023	1121	Bachelor	1	B9501YH1	A	Psychological and Educational Measurement	1. Students can understand the basic concepts related to educational testing (including: basic abilities such as multiple-choice testing, testing ethics, interpreting tests, and test question analysis). 2. Be able to understand the quantitative basis of psychological testing. 3. Prepare and administer actual tests through course explanations.	2	H	Teacher Education Center	SDG4,SDG10
2023	1121	Bachelor	2	B5302P50	A	Electromagnetics	This course explores basic electrostatics and magnetostatics	3	A	Department of Electrical Engineering	SDG9
2023	1121	Bachelor	4	B6C04U48	A	Applied Mathematics	This course hopes to introduce some concepts of mathematics and physics through animation examples, and hopes that students will become interested in calculus, linear algebra, probability, and physics. The course will also introduce the theoretical foundations related to undergraduate departments. I hope everyone can learn applied mathematics in a joyful atmosphere.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B380243P	A	Phycology	1. Guide students to understand algae: Teachers and external speakers introduce various algae that can be found in the seas of my country and the world, and guide students to understand the important position of algae in the ecosystem and daily life. 2. Guide students to discover their connection with algae: Teachers guide students to inquire about the use of various algae, so that students can understand the contribution of algae to people's daily life and industry. 3. Make students spontaneously care about the information of algae-related industries: Through the course, students can start to pay attention to and think about the current situation and possible future changes of China's algae-related industries after learning about algae, and enhance students' concern for algae-related industries. and understanding	3	A	Bachelor Degree Program in Marine Biotechnology	SDG14
2023	1121	Master	1	M5201N5J	A	Data mining	This course aims to introducing the techniques of data mining and the students will learn data collecting, cleaning, processing, and statistically analyzing and extract useful information.	3	B	Department of Harbor and River Engineering	SDG4,SDG10,SDG13,SDG11
2023	1121	Master	1	M5201N9W	A	Programming on Ocean Engineering	Application of PC-computation tools in coastal engineering	3	B	Department of Harbor and River Engineering	SDG4,SDG13,SDG14
2023	1121	Bachelor	1	B380145Q	A	Biology Lab. (I)	Through operating the experiments by themselves, the students will gain the knowledge of life science.	1	A	Bachelor Degree Program in Marine Biotechnology	SDG14,SDG15
2023	1121	Bachelor	1	B380145P	A	Biology (I)	The purpose of the course in biology is aimed to stimulate the interest of students in biological sciences and enlighten the curiosity of natural phenomena.	3	A	Bachelor Degree Program in Marine Biotechnology	SDG14,SDG15
2023	1121	Bachelor	2	E4N02412	A	English	The main objective of this course is to improve students''''''' listening, speaking, reading and writing skills and comprehension. The students will be asked to practice listening and reading through useful conversations and well-written articles.	2	A	Institute of Applied English	SDG3,SDG12,SDG4,SDG5
2023	1121	Bachelor	1	E4N11410	C	English	The purpose of this course is to improve students'''' abilities in vocabulary, listening and reading.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	1	B6C11M97	A	Calculus	1. To have fundamental knowledge of Calculus 2. To have the ability to use calculus to solve problems	3	A	Department of Communications Navigation and Control Engineering	SDG4,SDG8
2023	1121	Bachelor	2	B6C120K8	A	Electronic Circuits Laboratory	Establish a practical foundation for electronic circuits, verify theories through practice, and assist and enhance the learning effectiveness of electronic circuit-related courses.	1	A	Department of Communications Navigation and Control Engineering	SDG4

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2023	1121	Bachelor	1	B7201ML1	A	Matlab Programming Language	MATLAB has the following advantages: (1) It is an interpreted language, making it easy to write; (2) It provides a large number of built-in function libraries; (3) It includes specialized toolboxes for various fields; (4) It has powerful and comprehensive plotting capabilities; (5) It allows for easy creation of interactive program interfaces. Therefore, it is widely used in academia and engineering. The goal of this course is to enable students to learn this software suite as soon as possible. Besides establishing a foundation in programming languages, mastering MATLAB will also provide many benefits for assisting in academic learning, research, or work in the future.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	4	B57040UF	B	Computer Projects (Ⅱ)	applied machine learning techniques for internet/networking problems	3	B	Department of Computer Science and Engineering	SDG4,SDG9,SDG5
2023	1121	Bachelor	1	B5701NNX	B	Service-Learning Program-Campus Service(Ⅰ)	Through labor service, cleaning classrooms, cleaning the campus, renovating flower gardens and other school-loving activities, we cultivate students' service spirit.	0	T	Department of Computer Science and Engineering	SDG3,SDG4
2023	1121	Bachelor	1	B5711M97	A	Calculus	It is hoped that students can learn how to use mathematical language to think and build their ability to analyze and solve problems from the complete basic mathematical knowledge of calculus. --Based on the concept of limit, learn the concepts of characterization of functions, calculation of derivative functions and definite integrals; --Learn how to apply function characterization to solve application problems -- Understand how to apply integral theory to solve summation problems, calculation of common geometric quantities and other related problems -- And be able to learn the attitude of careful thinking and verification that is necessary in mathematical science	3	A	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	2	B7202P48	A	Electric Circuits	Enable students to understand the basic principles of circuit analysis for future application on Electronics, Automatic Control, and Mechatronics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	1	B7201099	A	Work Shop Practice	1.During factory internships, one learns to utilize commonly used mechanical tools accurately for measuring workpieces and to employ various types of hand tools for tasks such as sawing, filing, drilling, tapping, reaming, threading, and assembly. Additionally, proficiency in operating grinding machines for tool sharpening, lathes for turning round bars and step bars, and familiarity with milling machine processing principles are developed. 2.Factory internships provide opportunities for further exploration into methods of CNC machining, manufacturing procedures, and automation engineering. They also pave the way for engaging in jobs related to component design, mechanism design, and mechanical engineering. 3.Through the experiences gained from factory internships, one gains an understanding of the importance of factory safety and the significance of prioritizing safety above all else.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	1	B6C011IX	A	Introduction to Communications, Navigation and Control Engineering	Introduce basic concepts of communications, navigation and control engineering.	1	A	Department of Communications Navigation and Control Engineering	SDG4,SDG15
2023	1121	Bachelor	4	B6C042VZ	A	Internship in Information and Communication Engineering	The course enables students to develop their work attitude and practical application ability of professional knowledge in the corporate workplace. It can also broaden students'' horizons, enhance students'' competitiveness, and contribute to their career planning.	4	B	Department of Communications Navigation and Control Engineering	SDG8
2023	1121	Bachelor	2	B6C02993	A	Computer Organization	Teach students the internal organizational structure and control methods of existing computers. Then guide students to become familiar with the operation of each unit of the system.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B6C0222M	A	Engineering Mathematics	Provide students with the mathematical knowledge and skills and support their concurrent and subsequent engineering studies.	3	A	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B6C0202I	A	Introduction to Information and Entropy	Learn how to measure message capacity; how much information can be compressed; how to communicate effectively over imperfect channels	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG8,SDG9
2023	1121	Master	1	M6701U14	A	Random Signals and Optimal Filtering	To indruduce the random signals and principles and applications of Kalman filter	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG5,SDG17
2023	1121	Master	1	M6701V92	A	Neural Network Theories and Applications	Understand the neural network structure and learning model and apply it to actual systems.	3	B	Department of Communications Navigation and Control Engineering	SDG9
2023	1121	Master	1	M67010RF	A	FPGA-Based Digital Logic System Design	Use large-scale programmable logic gates (FPGA) to replace ASIC circuit design, and learn Hardware Description Language (VHDL) from the topic examples. Starting from the most basic combinational logic and sequential logic, you can finally understand the planning and design of the control chip, and cooperate with Design examples and FPGA hardware to design digital logic systems and implement hardware control circuits.	3	B	Department of Communications Navigation and Control Engineering	SDG9
2023	1121	Master	1	M6711I38	A	Seminar	Introduce the knowledge/technology in the area of the communication, navigation, and control, and other applications of science.	1	A	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Master	1	M3701Q12	A	Special Topics on Fishery Biology	Fishery biology is a basis for understanding stock assessment and management of any fish species. Thus, this class aims to introduce methods commonly used for fishery studies including stock identification, estimation of stock abundance, understanding distribution patterns (in space and time) and migration of fishes; tagging applications; age and growth, reproductive biology, and feeding ecology of fishes. These information are essential for future understanding of the dynamics of any fish stocks and related fisheries.	3	B	Institute of Marine Affairs and Resource Management	SDG14
2023	1121	Master	1	M3701D4C	A	Special Topic on Dynamics of Marine Ecosystem	Changes in marine ecosystems are closely related to natural events and human activities. The aims of this class are to discuss the composition of marine ecosystems and to understand the mechanisms and processes that drive ecosystem changes over both short and long-term temporal and spatial scales. Human perturbations in relation to these changes will be emphasized, and some thoughts on the management and protection of the marine ecosystem will also be shared and discussed.	3	B	Institute of Marine Affairs and Resource Management	SDG12,SDG13,SDG14
2023	1121	Master	1	M37010VI	A	Independent Study on Management of Coastal & Offshore Fishery Resources in Taiwan	The purposes of this class are to help students to gather information on their own thesis research, and help them to read through critical literatures on topics that closely related to their thesis research. Each week, specific topics will be assigned, and discussed. Feedbacks will then be provided and supplemental materials will also be added by instructor to fulfill the gap of students' knowledge on each of these topics. The final report are then modified and completed. All weekly reports written by each student will need to be in a format of a scientific paper, and literature cited also need to be included. Hopefully, by the end of this class, more deeply knowledge on the topics of thesis research by students can be achieved, and thesis writing can also be easily completed.	2	B	Institute of Marine Affairs and Resource Management	SDG12,SDG14
2023	1121	Master	1	M5201260	A	Hydrology Statistics	Understand fundamental theory in Statistical Methods in Hydrology	3	B	Department of Harbor and River Engineering	SDG4,SDG11,SDG6
2023	1121	Master	1	M5201F88	A	Advance of Experimental Soil Mechanics	First, students can gain a deep understanding of the challenges faced by geotechnical engineers due to global climate change, and then introduce the relevant specifications of soil mechanics, drilling and sampling, as well as the basic principles and characteristics of various soil mechanics tests, safety monitoring, and become familiar with their applications in geotechnical engineering. , as a basis for further research on the mechanical behavior of soil and rock.	3	B	Department of Harbor and River Engineering	SDG4,SDG9,SDG13,SDG8

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2023	1121	Bachelor	1	B38012VX	A	Marine Biotechnology and Biotech Industries	This course mainly invites scholars, experts or industry figures related to the development of the marine science and technology industry to give lectures, so that students can understand the current status of marine biotechnology and the actual operation of related industries, as well as the future development direction.	2	A	Bachelor Degree Program in Marine Biotechnology	SDG1,SDG8,SDG14,SDG9,SDG4,SDG2
2023	1121	Bachelor	2	B380238U	A	Marine Active Substance Utilization and Drug Development	The marine environment has characteristics that are very different from the terrestrial environment, such as high salinity, high pressure, low temperature, and lack of oxygen. In this special growth environment, marine organisms have also formed metabolic pathways and bodies that are different from those of terrestrial organisms during the long-term evolution process. The defense mechanism produces some active substances with unique structures and significant pharmacological and toxicological effects. Therefore, the particularity of the marine environment and the diversity of species form the basis for the diversity of marine natural active products. Connecting industrial applications with academic theories enables students to understand the characteristics and applicable directions of what they have learned.	3	A	Bachelor Degree Program in Marine Biotechnology	SDG3,SDG4,SDG12,SDG9
2023	1121	Master	1	M330140D	B	Cultivation Techniques of Plankton	Based on the international industrial and research trends, this course aims to introduce the biology, isolation, cultivation and nutritional analysis technologies of planktonic organisms. The course could enhance student’ s knowledge on the latest industrial and academic developments in plankton cultivation. Demonstrations of live feed cultivation technique are included in this course, and is aimed to established students’ capacity to develop plankton cultures and their application as live feed in aquaculture. The course aims to allow the students to contribute to aquaculture industry and research activities.	3	B	Department of Aquaculture	SDG1,SDG2,SDG4,SDG9,SDG12,SDG14,SDG17,SDG15,SDG13,SDG11,SDG7,SDG3
2023	1121	Bachelor	1	B3301L6M	B	General Chemistry Lab.(I)	To train students to be familiar with basic experiments in general chemistry and to establish the relationship between theory and experiment in accordance with the course content, and to enable students to learn the basic operations of chemical experiments.	1	A	Department of Aquaculture	SDG1,SDG7,SDG6,SDG3,SDG4
2023	1121	Master	1	M9A014WG	A	Special topic on measurement and questionnaire design	Through the practice of questionnaire design, this course provides basic abilities and practical experience in test and questionnaire design. The basic ability part includes the concepts and strategies of test and questionnaire design and administration, handling of details such as questionnaire format sequence, processing and analysis of questionnaire data, and report writing. Design and complete a questionnaire and test based on the topics of concern and according to needs.	2	B	Institute of Education	SDG4
2023	1121	Bachelor	2	B9502Y61	A	Environmental Education	1. Be aware of Cultural Heritage. 2. Understand historical consciousness. Historical Consciousness includes local and international environmental issues. 3. Think about civic literacy Aesthetic Literacy and actively participate in it. 4. Expand international vision Global Vision. 5. Carry out life care and environmental care actions.	2	H	Teacher Education Center	SDG3,SDG17,SDG15,SDG6,SDG11,SDG13,SDG14,SDG7,SDG4
2023	1121	Bachelor	1	B5701V75	A	Discrete Mathematics	Discrete mathematics has critical applications in the field of computer science (such as algorithms, data structures, information security, etc.). This course aims to guide students in understanding the fundamental concepts of discrete mathematics, including set theory, logic, graph theory, combinatorics, number theory, and more. Once students have mastered these techniques, they can apply them to solving real-world problems through logical reasoning and proof skills.	3	A	Department of Computer Science and Engineering	SDG9
2023	1121	Bachelor	3	B6C03K69	A	Communication Network	The course is to provide the basic understanding of the physical, data link, network and application layer of the wired and wireless communication systems.	3	B	Department of Communications Navigation and Control Engineering	SDG9,SDG17,SDG11
2023	1121	Bachelor	3	B6C03625	A	Automatic Control Systems	Introduce basic control theory and applications of automatic control systems.	3	A	Department of Communications Navigation and Control Engineering	SDG9
2023	1121	Bachelor	1	B5701M33	C	Introduction to Programming	In this course, we will illustrate basic procedural and structural programming techniques using C language.	3	A	Department of Computer Science and Engineering	SDG4,SDG9
2023	1121	Bachelor	3	B3303M82	B	Microbiology Lab. (I)	Microbes can survive in different environments and are closely related to animal life. In this course, students will have hands-on experience in laboratory and study the microorganisms that is hard to be seen by the naked eye. Knowledge about microscope operation, bacteria staining and observation, bacteria cultivation, and bacteria inoculation will be introduced. Furthermore, guidance for biotechnology, such as the extraction of plasmids, the production of competent cells, and plasmid transformation and identification will be emphasized.	1	A	Department of Aquaculture	SDG2,SDG14,SDG6,SDG3,SDG4
2023	1121	Bachelor	2	B3302601	A	Organic Chemistry	This course provides an introduction to organic chemistry for students who are aiming toward careers in the sciences and require a grounding in organic chemistry.	3	B	Department of Aquaculture	SDG1,SDG3,SDG2,SDG6,SDG17,SDG13
2023	1121	Bachelor	3	B3303L06	A	Fish Physiology	To understand the physiological characteristic of fish, we first focus on the cell constitution, tissue structure, and organ function. In the further, we discuss the distinctive mark of fish by comparative biology concepts.	3	A	Department of Aquaculture	SDG12,SDG14
2023	1121	Bachelor	3	B330366D	A	Immunology	Provide students with basic immunological concepts	2	B	Department of Aquaculture	SDG3
2023	1121	Bachelor	2	B3302310	A	Analysis of Water Quality	The Importance of Water and Its Relationship to Water Quality and Aquatic Life Cultivation	3	A	Department of Aquaculture	SDG3,SDG4,SDG6,SDG11,SDG14,SDG17,SDG12,SDG7
2023	1121	Bachelor	1	B330145P	A	Biology (I)	1. In order to enable students to have a correct concept and understanding of biology and life sciences, the course content also covers different fields such as definition, morphology, physiology, evolution, genetics and environmental science. 2. Completely introduce the process and diversity of life development through different classification levels and evolutionary sequences, and build students' understanding and respect for different life forms. 3. By using "domain" and "boundary" as inductive methods, students can clearly understand the manifestations of different life forms, as well as the characteristics and value of species diversity, and then develop a comprehensive understanding of various living things and their morphological and physiological manifestations. A complete understanding of the subject and serves as a basic education in subjects related to cells, tissues, individuals or ecology. 4. Based on biology, different applied sciences such as cell biology, genetic evolution, habitat ecology and conservation ecology are introduced at the same time as a guide for extended learning.	3	A	Department of Aquaculture	SDG14,SDG15
2023	1121	Master	1	M6701R94	A	Digital Control	Classical controls approach to the analysis and design of digital control systems. Design by frequency response and root locus methods. Use of MATLAB and a controls laboratory for controller design, implementation and system analysis.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B3302312	A	Analysis of Water Quality Lab.	The importance of water quality for aquaculture	1	A	Department of Aquaculture	SDG1,SDG6,SDG3,SDG4,SDG11,SDG12,SDG17,SDG16,SDG14
2023	1121	Bachelor	4	B3304J22	A	Research in Special Topics	Students taking the course are asked to complete the experiment, organize the data, and create a presentation before the midterm exam. The research results will then be presented orally and a written report will be submitted.	3	B	Department of Aquaculture	SDG4,SDG9,SDG12,SDG14,SDG11,SDG8

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2023	1121	Bachelor	3	B330345B	A	Biochemistry (Ⅱ)	The goals of this course are: 1. to gain sufficient fundamental understanding of the chemistry of life to be able to understand and communicate the principles that underlie the properties and function of living tissue on a molecular level; 2. to gain knowledge and skills relevant to careers either in biological sciences or in careers that utilize the informational content of, or are impacted by, research in biochemistry; 3. to be able to use this information to analyze and evaluate new projects	3	A	Department of Aquaculture	SDG1,SDG3,SDG2,SDG4,SDG13,SDG14,SDG12
2023	1121	Master	1	M83013I7	A	Oceanic greenhouse gases and climate change	This course provides comprehensive knowledge and important concepts on oceanic greenhouse gases and climate change. This course also discuss how the climate change influence the ocean and the interaction between them. By combining the scientific articles reading and discussions, it can inspire students to think, analyze and discuss the data as well as present their ideas	3	B	Institute of Marine Environment and Ecology	SDG13,SDG14
2023	1121	Master	1	M83014G9	A	Nitrous oxide concentrations and distributions in the seawater	This course provides comprehensive knowledge and important concepts on oceanic nitrous oxide production. By reading scientific articles, inspires students to think, analyze and discuss the data as well as present their ideas. This training aims to enhance the students' knowledge about nitrous oxide concentrations and distributions in the seawater.	3	B	Institute of Marine Environment and Ecology	SDG13,SDG14
2023	1121	Bachelor	1	B3801M9J	A	Calculus (I)	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics.	3	B	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG5
2023	1121	Master	1	M5201M16	A	Marine Surveying	Oceanographic survey is mainly to provide ship navigation safety, channel dredging, harbor engineering construction, sea frontier declaration, fishery development, marine (shore) development and utilization and disaster prevention protection planning and design and marine scientific research (seabed geology, current, salinity, nutrients and seafloor earthquakes, etc.). Therefore, this course mainly introduces ocean phenomena (waves, tides, currents, etc.), terrestrial phenomena (shorelines, bathymetry and sediment, etc.) and meteorology (wind, air pressure, etc.) and other observation systems principles and methods.	3	B	Department of Harbor and River Engineering	SDG4,SDG11
2023	1121	Doctorate	1	D52012DW	A	Advanced Topics in Groundwater Modeling	The teaching goal of this course is to teach students how to use advanced methods to analyze groundwater-related issues in geotechnical engineering. The content of the course starts from the introduction of groundwater, explaining the theory of saturated layer groundwater and unsaturated layer groundwater theory, and then explains the governing equations and discusses various analysis methods. The analysis methods in this course will include numerical analysis methods such as finite difference method and meshless method. The goal of the course is to equip students with the ability to use advanced methods to analyze groundwater in geotechnical engineering, and to enhance students' competitiveness in related research and future employment.	3	B	Department of Harbor and River Engineering	SDG9
2023	1121	Master	1	M33014M5	C	Theory and Applications of Entrepreneurship in Precision Agriculture and Biotech Industries	In addition to theoretical knowledge, this course combines practical aspects. Under the systematic guidance of the course, innovative and entrepreneurial ideas are turned into feasible business models, so that students can understand the domestic and foreign entrepreneurial ecosystems and have the ability to search and integrate entrepreneurial resources.	2	B	Department of Aquaculture	SDG1,SDG3,SDG9,SDG13,SDG4
2023	1121	Bachelor	3	B6C0301N	A	Communication Theory	This course provides the fundamental communication techniques, including signal processes, noise and interference analysis, analog/digital modulations, transmission theory, coding, system modeling and BER analyses. Particular emphasis in background requirement and entrance level is the must for the undergraduate student.	3	A	Department of Communications Navigation and Control Engineering	SDG9,SDG17,SDG11
2023	1121	Bachelor	1	B3301M9J	A	Calculus (I)	It is hoped that students can learn how to use mathematical language to think and build their ability to analyze and solve problems from the complete basic mathematical knowledge of calculus.	3	B	Department of Aquaculture	SDG4
2023	1121	Bachelor	4	B6D040NA	A	Pneumatics and Hydraulics	To provide the student with a sound and basic background in the vast field of fluid power and essentially to understand the design, analysis, operation and maintenance of fluid power systems.	3	B	Department of Marine Engineering	SDG17,SDG8,SDG9,SDG10,SDG4
2023	1121	Bachelor	1	B6C0199M	A	Introduction to Computer Science	This course is to provide a basic understanding of the computer science.	3	A	Department of Communications Navigation and Control Engineering	SDG9,SDG11,SDG17
2023	1121	Bachelor	4	B6C044DP	A	Practice Lecture on Current Industry	This course focuses on introducing the latest ICT (Intelligent Communication Technology) technology and related application services in the communications industry, allowing students to fully understand the industry development direction and practical operations. The course content will arrange speeches by industry representatives based on different themes to help students conceive of future development and employment directions.	2	B	Department of Communications Navigation and Control Engineering	SDG8,SDG9
2023	1121	Bachelor	1	B6C0197L	A	Practice of Computer Structure	This course is to provide a basic understanding on the computer science.	1	A	Department of Communications Navigation and Control Engineering	SDG9,SDG11,SDG17
2023	1121	Master	1	M86010UU	A	Introduction to Geosciences	This course will provide the students with the fundamental knowledge of the origin of universe and solar system as well as the interactions of Earth systems. The students will be trained to develop the ability of logic reasoning and independent problem-solving along the course.	3	B	Institute of Earth Sciences	SDG13,SDG15,SDG14
2023	1121	Bachelor	2	B3302312	B	Analysis of Water Quality Lab.	Let students to participate in practical analysis to enhance their understanding of the importance of water quality and water ecology	1	A	Department of Aquaculture	SDG4,SDG12,SDG6
2023	1121	Bachelor	2	B33022ID	A	Aquaculture Lab. (I)	In order to cultivate and strengthen the understanding and cognition of aquatic organisms among students in the Department of Aquaculture, and at the same time to train students to have theoretical and practical learning attitudes and concepts, we specifically hope to establish a complete and perfect "aquaculture experiment" system for students, hoping to To educate and train students to become comprehensive and comprehensive aquaculture professionals.	1	A	Department of Aquaculture	SDG1,SDG4,SDG9,SDG12,SDG17,SDG14,SDG11,SDG8,SDG3,SDG2
2023	1121	Bachelor	2	B33022ID	B	Aquaculture Lab. (I)	In order to cultivate and strengthen the understanding and cognition of aquatic organisms among students in the Department of Aquaculture, and at the same time to train students to have theoretical and practical learning attitudes and concepts, we specifically hope to establish a complete and perfect "aquaculture experiment" system for students, hoping to To educate and train students to become comprehensive and comprehensive aquaculture professionals.	1	A	Department of Aquaculture	SDG1,SDG8,SDG9,SDG4,SDG12,SDG17,SDG14,SDG11
2023	1121	Master	1	M86013NU	A	Industry Practice of Ocean Sciences	1.This industry practice training program is designed for undergraduate and graduate students. 2.The training field of the industry practice is at the NMMST.	2	B	Institute of Earth Sciences	SDG4,SDG11,SDG14

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2023	1121	Master	1	M86011SK	A	Field Geophysical Explorations	Establish students' understanding of geophysical exploration field work and arouse students' interest in participating in geophysical exploration field work. Combining teachers, research equipment and students from Ocean University, Donghua University, National Central University and National Chung Cheng University to jointly learn and operate geophysical instruments in the field. Allow students to learn the professional knowledge of geophysical exploration through practice, understand the ability to integrate geological and geophysical research fields, and have the skills required to perform practice and the ability to operate instruments and equipment. This course is a field teaching course in geophysics. The course is mainly practical and covers common geophysical surveys such as seismic survey, geoelectric survey, ground penetrating radar, gravity and magnetic survey, and magnetotelluric survey. method, allowing students to learn about geophysical exploration methods through practice.	3	B	Institute of Earth Sciences	SDG4,SDG10,SDG11,SDG17,SDG5
2023	1121	Bachelor	3	B52032CW	A	Special Topic Research- Watershed Hydraulic Analysis	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3. Ability to communicate and express	2	B	Department of Harbor and River Engineering	SDG6
2023	1121	Master	1	M860124Y	A	Petroleum Geology	(1) Understand important energy sources and learn to cherish limited energy sources. (2) Understand the currently commonly used oil and gas exploration technologies and geochemical analysis methods. (3) Students who have taken this course are expected to have basic concepts of petroleum geology.	3	B	Institute of Earth Sciences	SDG4,SDG15,SDG14,SDG12
2023	1121	Master	1	M86012VF	A	Academic-Industrial Cooperation in Petroleum Prospecting	In order to cultivate and reserve professional talents in petroleum exploration early, students are encouraged to participate in off-campus internships, receive practical training as early as possible, understand the oil and gas evaluation methods in the petroleum industry, and experience related practical work situations. Through practical operational analysis, it helps students gain a basic understanding of petroleum exploration and the operation of commonly used exploration analysis software, thereby stimulating students' interest in the petroleum industry and conducive to future career development.	2	B	Institute of Earth Sciences	SDG4,SDG8
2023	1121	Master	1	M5201391	A	Reliability Analysis	This course introduces the application of the principles and methods of reliability analysis in civil engineering. This course uses statistical probability theory and methods as tools to deal with the influence of possible uncertainty factors in actual engineering, and handles it from a new perspective, that is, the current perspective of uncertainty. Engineering problems, decision making, evaluation and analysis. The spirit of this course is to deal with the uncertainty of "structural strength" and "load" in a more reasonable way to explore the reliability of structural safety.	3	B	Department of Harbor and River Engineering	SDG9,SDG11
2023	1121	Master	1	T4Y014DX	A	Financial Analysis and Project Evaluation	Let students understand the theories and methods of financial management and the content of financial activities in actual company operations, and cultivate students' ability to apply financial statement analysis and investment plan evaluation.	2	B	Department of Transportation Science	SDG1,SDG9,SDG12,SDG10,SDG8,SDG3,SDG4,SDG5,SDG2
2023	1121	Master	1	T4Q01N9T	A	Computer Aided Analysis	The main goal of this course is to introduce students to how to use numerical methods or computer-aided software to solve complex mechanical problems encountered in general engineering. This course intends to combine the basic calculation method - the theory of finite element method and the application of design analysis software developed based on it. It is expected to combine theory and engineering design through computer high-speed calculation and analysis, so that students can establish basic theory and design The ability to analyze, based on computational mechanics, allows for more advanced mechanical analysis and research.	3	B	Department of Marine Engineering	SDG4,SDG9,SDG8
2023	1121	Master	1	T4Q02DRM	A	Discussion of Research Method	It is specially designed for students in the on-the-job master's class. It uses personal practical work experience as the theme and tailors its own research methods, with the purpose of completing the master's graduation thesis belonging to the on-the-job master's class.	1	B	Department of Marine Engineering	SDG4,SDG14
2023	1121	Bachelor	3	B81034SO	A	Applied Fluid Mechanics	The object of this course is to present an introduction and application of fundamental fluid mechanics which governs the motion in the atmospheric and ocean environment. Emphasis will be on the basic analysis of simplified fluid motion as well as theoretical description of ocean motions (with main focus on long waves and currents).	2	B	Department of Marine Environmental Informatics	SDG4
2023	1121	Bachelor	2	B9D023L3	B	English Grammar (Elementary)	This course aims at helping students recognize and understand the meaning of targeted grammatical structures, and then be able to use them meaningfully and appropriately in reading and writing.	2	B	Institute of Applied English	SDG4
2023	1121	Master	1	M02014R2	A	ServSafe Certified Food Protection Manager Course	Food businesses must comply with the Food Act to protect the health of consumers and employees. Through this course, students can learn the best practices for food processing in the American catering industry, and take an online exam at the end of the course. If they pass the course, they can obtain a Servsafe Food Safety Certificate, which will enhance their competitiveness in the workplace.	2	B	Institute of Food Safety and Risk Management	SDG2,SDG4,SDG8,SDG12,SDG17,SDG9,SDG6,SDG3
2023	1121	Master	1	M30014MP	A	Food Industry Management	In response to the development trend of food industry management (including food development and management), integrate cross-domain courses, expand students'' professional knowledge and literacy in multiple fields, and then cultivate cross-disciplinary talents who integrate food industry management and marketing professional skills. In the future, work independently in the workplace, enhance workplace competitiveness and employment opportunities, and even have the ability to independently operate food-related industries.	2	B	College of Life Sciences	SDG4,SDG9
2023	1121	Master	1	M30014MO	A	International marketing and interdisciplinary entrepreneurship	In the face of an increasingly complex marketing environment, whether it is a B to B or B to C market, the marketing methods are changing, and new marketing strategies are constantly appearing in the market. How can entrepreneurs clarify the truth of interdisciplinary marketing problems and avoid them Entering the trap of vicious competition in sales is an important issue at present. Therefore, this course combines the on-campus innovation and entrepreneurship mechanism, regional and international marketing management, and the basic and advanced courses of cross-domain entrepreneurship in the previous plan to cultivate interdisciplinary innovative and entrepreneurial talents in the biotechnology industry. The course covers nine major fields including intellectual property patents, technology appraisal, marketing, marketing, finance, talent management and risk assessment required for entrepreneurship.	2	B	College of Life Sciences	SDG4,SDG9

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2023	1121	Bachelor	3	B5603S01	A	Numerical Analysis	1. Understanding the basics of the numerical techniques 2. Communicating the results of a numerical method effectively 3. Knowing the strengths and limitations of the numerical techniques 4. Developing fundamental skills for further applications	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG1,SDG4
2023	1121	Doctorate	1	D86011SG	A	Special Topics on Multiple Paleoceanographic Proxies	It is the goal of the course to provide graduate senior undergraduate students with an overview of current knowledge in the areas of earth environment, paleoceanography and paleoclimatology, and global climate change through oral reports and seminar discussions. In the event that any non-Mardrian speakers join the course, the course will be taught in English.	3	B	Institute of Earth Sciences	SDG7,SDG13,SDG14,SDG11
2023	1121	Bachelor	3	B3303M9G	A	Microalgal Cultivation	1. Guide students to understand microalgae culture technology: Teachers and external speakers introduce various microalgae and their culture technology that can be found in seas in my country and the world, and guide students to understand the application scope of microalgae culture technology. 2. Guide students to discover their connection with microalgae: Teachers guide students to inquire about various microalgae cultivation technologies, so that students can understand the contribution of microalgae cultivation technology to the industry. 3. Make students spontaneously care about the information about microalgae-related industries: Through the course, students can start to pay attention to and think about the current situation and possible future changes of China's microalgae-related industries after learning about algae, and enhance students' understanding of microalgae-related industries, Industry concern and understanding	2	B	Department of Aquaculture	SDG1,SDG8,SDG11,SDG14,SDG17,SDG12,SDG9,SDG4
2023	1121	Bachelor	3	B3303N0B	A	Microalgal Cultivation Lab.	1. Guide students to understand microalgae culture technology: Teachers and external speakers introduce various microalgae and their culture technology that can be found in seas in my country and the world, and guide students to understand the application scope of microalgae culture technology. 2. Guide students to discover their connection with microalgae: Teachers guide students to inquire about various microalgae cultivation technologies, so that students can understand the contribution of microalgae cultivation technology to the industry. 3. Make students spontaneously care about the information about microalgae-related industries: Through the course, students can start to pay attention to and think about the current situation and possible future changes of China's microalgae-related industries after learning about algae, and enhance students' understanding of microalgae-related industries, Industry concern and understanding	1	B	Department of Aquaculture	SDG1,SDG9,SDG12,SDG17,SDG14,SDG11,SDG8,SDG4
2023	1121	Doctorate	1	D73010T7	A	Seminars on Green Shipping ang Logistics	The aim of the course is to provide students with an advanced understanding and investigating the important issues on green shipping and logistics, the current green shipping and logistics practices, and the academic research themes and future study directions.	3	B	Department of Shipping and Transportation Management	SDG14
2023	1121	Bachelor	1	E4A010FA	B	Introduction to Merchant Ship	To introduce the basic knowledge regarding merchant ships for the fresh students entering this department, and to make benefit for them to study professional courses of navigation during the follow-ing years.	2	B	Department of Merchant Marine	SDG1,SDG17,SDG14,SDG5,SDG8,SDG12
2023	1121	Master	1	M9C010J8	A	Editorial on the History of Maritime Immigration in East Asia	Taiwan is located on an island in East Asia. It has frequently interacted with the outside world since ancient times. Since the advent of the Age of Discovery in the 17th century, the multiculturalism created during immigration has created a great influence and impact. Under this premise, the study of Taiwan’ s immigration history has become even more important in East Asia. Therefore, through the teaching of immigration history, students can get to know and understand the interactions between the Taiwanese people who lived here in the past and other regions in East Asia, such as mainland China, Japan, Ryukyu, and Southeast Asia. Furthermore, it is even more important to understand the complete historical picture of the purpose and dynamics of immigration from Taiwanese people to various parts of East Asia, as well as the various interactions with the local areas. This is the plan and goal of this course teaching	2	B	Institute of Oceanic Culture	SDG1,SDG16,SDG11
2023	1121	Bachelor	1	B9D01968	9	English	The goal of Freshman English is to familiarize you with the fundamental skills needed to help you become an efficient learner in reading and vocabulary (this semester) and speaking and listening (next semester). In addition to the course handouts, valuable resources (both on- and off-line) will be introduced and various learning tasks have been prepared to encourage you to build up an active learning attitude for pursuing ongoing advancement of your English ability in an independent and effective manner.	2	A	Institute of Applied English	SDG1,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG7,SDG4,SDG2,SDG5,SDG6.SDG3
2023	1121	Bachelor	1	B6F010Z3	B	Fire Prevention and Basic Fire Fighting	Fitting in with request of support level of This curriculum fits with table A-III/1, STCW 95 management ability in demand of marine engineering. The course contents are basic principle of fire fighting, kinds of fire extinguisher and its agents, knowledge and responsibility of crews.	1	B	Department of Marine Engineering	SDG4
2023	1121	Bachelor	3	B77032BN	A	Brand Management	This course aims to: 1. help students understand theoretical knowledge about brand management; 2. cultivate students’ abilities to apply theoretical knowledge in analyzing brand cases; and 3. cultivate students’ abilities to apply marketing communication tools in solving practical problems of brands.	2	B	Bachelor Degree Program in Ocean Business Management	SDG12
2023	1121	Bachelor	2	B56023LW	A	Lectures of Ocean Engineering & Technology	The purpose of the course is to invite experts and scholars from the industry, academia and research fields to give presentations and lectures on the scope of marine engineering technology. It is hoped that through the presentations and practical engineering case explanations, students will have the following abilities: 1. Understand the scope covered by marine engineering technology and related industry-university practical engineering cases. 2. Understand contemporary engineering practice issues and understand the importance of engineering technology ’ s impact on the environment, ecology and society. 3. Understand the responsibilities engineers have towards society	1	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG13,SDG14
2023	1121	Doctorate	1	D8101FA8	A	Advanced Numerical Analysis	Scientific computing is playing a prominent role in both science and engineering. In this course, the main objective is introduce widely used technique for solving partial differential equations (PDEs).	3	B	Department of Marine Environmental Informatics	SDG4
2023	1121	Master	1	M89014DG	A	Fundamentals of Semiconductors Materials and Nanostructures	Physical properties of semiconductor materials and nanostructures which are critical to optoelectronic devices will be introduced in this class. These include the following topics: Bandgap engineering of nanostructures, two-, one- and zero-dimensional systems, transport in superlattices and quantum wells, carrier diffusion and scattering, kinetic equation, ballistic transport, optical absorption, excitonic effects, radiative and non-radiative recombination, electrostatics and transport in junctions, heteroepitaxy, strain, defects and interfaces.	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG9
2023	1121	Master	1	M3501Q96	A	Management Mathematics	To provide a comprehensive presentation of the basic mathematical methods which have become indispensable for a proper understanding of the current economic, financial and management literature	3	B	Institute of Applied Economics	SDG3,SDG10,SDG5,SDG8,SDG9,SDG4
2023	1121	Bachelor	2	B8112086	A	Engineering Mathematics	Understand the basic concepts of solving differential equations such as first, second and third order ordinary differential equations, sequence series, and Lablacian transformations.	3	A	Department of Marine Environmental Informatics	SDG4
2023	1121	Bachelor	4	B81041BO	A	Special Topic on Biogeochemical Cycle	The goal of this course is to understand the global biogeochemical cycle process and allow students to understand the cycle process of various marine nutrients in the global environment.	3	B	Department of Marine Environmental Informatics	SDG13

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1121	Bachelor	4	B01043LE	A	Practice in Marine Industry	1. In order to enable students to understand the practical operation of the marine industry, combine theory with practice. 2. Internship unit: Harbor Bureau of the Ministry of Transport.	2	B	Bachelor Degree of Ocean Law and Policy	SDG3,SDG8,SDG4,SDG9,SDG11,SDG16,SDG14,SDG10
2023	1121	Bachelor	3	B81032UN	A	IDL Programming Language: remote sensing data processing	understanding the fundamentals of the IDL (Interactive Data Language) language and programming for remote sensing data processing	3	B	Department of Marine Environmental Informatics	SDG9,SDG17
2023	1121	Bachelor	4	B8104122	A	Special Topic on Sandstorm	Understanding the mechanism of sandstorm and the recent researches in sandstorm	3	B	Department of Marine Environmental Informatics	SDG3,SDG15,SDG17,SDG13,SDG11,SDG12
2023	1121	Bachelor	1	B810103B	A	Marine Meteorology	To introduce the basic concepts and theories of marine meteorology. This lecture will also introduce the practical observation and application of meteorology.	3	B	Department of Marine Environmental Informatics	SDG11,SDG13,SDG17,SDG14
2023	1121	Master	1	T4F022U6	A	Educational Aesthetics and Practice	1. Be able to understand the basic connotations of beauty, aesthetics and educational aesthetics. 2. Be able to collect and understand information on aesthetics and aesthetics-related issues and report learning experiences. 3. Be able to conduct special research and reports on selected educational aesthetics research topics. 4. Be able to use the aesthetic connotation gained from learning to think about relevant issues in the teaching scene.	2	B	Institute of Education	SDG4
2023	1121	Master	1	M9C010BV	A	Editorial on the History of Navigation and Trade in East Asia	Broadly speaking, East Asia is a geographic area covering Northeast Asia, Mainland China, Taiwan, and Southeast Asia. These regions have had close interactions since ancient times through commercial and trade activities, due to the connectivity of the sea routes. Therefore, this course hopes to understand the dynamic appearance of maritime East Asia through the ship technology, economic trade, and cultural exchanges of modern East Asian countries.	2	B	Institute of Oceanic Culture	SDG17
2023	1121	Master	1	M7401I18	A	Seminar on International Law	The course is designed to develop knowledge and understanding of (1) the international legal system; (2) the main institutions which contribute to the development and application of international law; and (3) the legal rules, principles and processes which govern key areas of inter-state activities.	2	A	Institute of the Law of the Sea	SDG1,SDG4,SDG14,SDG17,SDG16
2023	1121	Master	1	T46011RY	B	Civil Code - General Principles	To enable students to understand and become familiar with the General Principles of Civil Law as the basis of my country's civil legal relations code, its important contents such as the subject of rights, objects of rights, legal acts, dates and periods, etc., and to master the relationship between them.	2	A	Institute of the Law of the Sea	SDG1,SDG10,SDG12,SDG16,SDG11,SDG9,SDG4,SDG8,SDG5
2023	1121	Master	2	T46121RZ	B	Code of Civil Procedure	Let students have a comprehensive understanding of civil procedure law after studying it, which will serve as the basis for improving their knowledge of procedure law.	2	A	Institute of the Law of the Sea	SDG1,SDG4,SDG5,SDG11,SDG16,SDG12,SDG10,SDG9,SDG8
2023	1121	Bachelor	1	B9D01968	W	English	The course is designed to teach students to analyze, critically evaluate, and intelligently respond to texts. Featuring articles from popular media outlets, each unit centers on a high-interest topic and guides learners through engaging discussions and activities. After completion of the course students are expected to develop well-reasoned, supported opinions on a wide range of high-interest topics as they learn critical thinking and reading skills to better understand and evaluate what they read.	2	A	Institute of Applied English	SDG4,SDG5,SDG11,SDG13,SDG14
2023	1121	Bachelor	3	B56034JU	A	Application of Ocean Simulation Model	Numerical models for planning and design in ocean and coastal engineering are introduced in the course. The goal of the course is to apply the models to study wave shoaling, refraction, diffraction, breaking, bottom dissipation, wave and wave interactions.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG14
2023	1121	Bachelor	1	B9D01968	Q	English	Stress reciprocal input with the ultimate goal of improved fluency, utilizing diverse strategies to teach interpersonal communicative skills	2	A	Institute of Applied English	SDG1,SDG4,SDG8,SDG12,SDG10,SDG5,SDG3,SDG13,SDG17,SDG15
2023	1121	Bachelor	1	B9D01968	C	English	This course will focus on improving students' English reading and listening skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4,SDG5,SDG10
2023	1121	Bachelor	1	E4A01T04	A	Introduction to Marine Engines	The aims of this course is to give students of Merchant marine a conceptual grounding in the subject of thermodynamics and its related topics of marine engineering. Hopefully, it could create a better communication between deck and engine department when necessary.	2	A	Department of Merchant Marine	SDG4
2023	1121	Bachelor	1	B9D01968	G	English	The goal of this Freshman English course is to teach students the reading and writing skills. The textbook uses the theme-based approach to help students obtain knowledge in business and finance, science, environmental protection, and health issues.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	1	B9D01968	O	English	The main objective of this course is to improve students' reading skills and comprehension. Through a selection of well-written articles, the students will be asked to practice various reading skills such as thematic identification and the analyses of written materials given. They will also have the opportunity of honing their writing skills.	2	A	Institute of Applied English	SDG3,SDG10,SDG16,SDG5
2023	1121	Bachelor	1	B9D01968	N	English	This course will develop students'' listening and reading skills and help them prepare the TOEIC test. Students will also be asked to practice speaking skills in a group project.	2	A	Institute of Applied English	SDG4
2023	1121	Master	2	M9C02OC1	A	History of overseas Chinese in Southeast	Our government first proposed the Southern Policy in the 1990s. However, it is still relatively biased toward foreign and economic aspects. However, culture is an observation and consideration factor for understanding the variables of international relations. Moreover, Southeast Asia is the largest overseas migration place of our country''s people, so it is necessary to further understand its cultural and social background. Therefore, this course is expected to take the Chinese in Southeast Asia as the main body, and to understand the culture and society of Southeast Asia through the history of Chinese immigration.	2	B	Institute of Oceanic Culture	SDG10,SDG17
2023	1121	Bachelor	1	B9D01968	1	English	The course aims to help students with pre-intermediate proficiency in English acquire the ability to read college-level materials fluently. This class presents to students major grammatical concepts of the English language and reviews the most basic vocabulary (affixes and roots, words, phrases and collocations).	2	A	Institute of Applied English	SDG1,SDG4
2023	1121	Bachelor	1	B9D01968	A	English	This course is designed to help students become efficient learners in fundamental skills of English. Students are also encouraged to build up an active learning attitude for pursuing ongoing advancement of English ability in an independent and effective manner.	2	A	Institute of Applied English	SDG3,SDG5,SDG4
2023	1121	Bachelor	2	B9D023KP	A	English for Business and Management (Intermediate)	This course focuses on preparing Business English language including vocabulary building through listening clips reading graded readers. Teachers prepare a series of graded reading, listening, speaking and writing materials for students to read for fun and learn more business English language skills and practical knowledge.	2	B	Institute of Applied English	SDG4,SDG8
2023	1121	Bachelor	1	E4911H61	A	Chinese	By reading the classic works of thinkers and writers, students can not only improve the foundation of their language skills, but also be able to reflect on their own life situations and attitudes towards others, so that classics can be integrated into personal life. In addition, we hope to train students in coordination, communication, oral expression, image communication and other abilities through discussions, reports, multimedia teaching and other methods.	2	A	Office of the Academic Affairs	SDG4

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2023	1121	Bachelor	1	E4901ZEL	A	The Great Artists of Fine Art	1. Be able to deeply explore the artist’ s creation and life experiences; experience the artist’ s creative adventure and its ups and downs 2. Ability to tap into the artist’ s wisdom and broaden our vision and mind	2	C	Office of the Academic Affairs	SDG3,SDG5,SDG10,SDG17,SDG15,SDG4
2023	1121	Master	2	T46121RV	B	Criminal Procedure Law	The goal of this course is to enable students to understand the principles and basic principles of criminal procedure, and to establish an overall concept of the proceedings.	2	A	Institute of the Law of the Sea	SDG8,SDG16,SDG10
2023	1121	Bachelor	4	B01043YC	A	Law of Marine Environment Protection	This course takes the marine environment as its main subject and international marine environmental protection law as its main content. It mainly discusses the international legal norms related to marine pollution, as well as regional and national marine environmental practices.	2	B	Bachelor Degree of Ocean Law and Policy	SDG14
2023	1121	Bachelor	2	B0102ZA6	A	Public Policy	Public policy is one of the main means by which the government exercises power. Public policy can also be said to be the action plan chosen by the government, and the plans and programs formed to solve specific public problems, such as environmental policy, education policy, public health policy, etc. This course covers the connotation of public policy, the formation, formulation and evaluation of public policy. Students will be able to understand the definition of public issues, how public policy is constructed and planned, and also develop independent thinking and critical abilities to gain insight into national policies.	2	B	Bachelor Degree of Ocean Law and Policy	SDG11
2023	1121	Bachelor	3	B01032GZ	A	Crime Investigation	This course aims to guide students to understand the basic knowledge of criminal investigation	2	B	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1121	Bachelor	3	B01032VR	A	Legal English(III)	Building on Legal English I and II, this course aims to provide an opportunity to put in practice various techniques and skills concerning the use of the English language in a legal context. The course focuses on detailed understanding of selected cases and practical writing skills for resumes, contracts and case comments.	2	B	Bachelor Degree of Ocean Law and Policy	SDG5,SDG10,SDG16
2023	1121	Bachelor	3	B01032VN	A	Japanese for Law Students (3)	(1) This series of courses will improve students' ability to read legal Japanese through explanations of the basic structure and syntax of Japanese. It will also provide timely current affairs materials to help accumulate preliminary experience in interpreting messages, so as to improve their profession and further help In research and thesis writing. (2) The main goal of this semester's "Legal Japanese (3)" course is to enable students to become proficient in the use of verbs and to familiarize themselves with Japan's legal and political system and current social conditions through the introduction of news.	2	B	Bachelor Degree of Ocean Law and Policy	SDG4,SDG10,SDG16,SDG17
2023	1121	Doctorate	1	D740143E	B	Seminar on Civil Code (I)	Regarding the development of contract law internationally, there are signs of unification among countries. The root of this comes from the United Nations Convention on the International Sale of Goods (CISG) adopted by the United Nations in 1980. This course uses the Convention on the International Sale of Goods as the teaching content to enable students to understand the current development direction of contract law in various countries.	2	B	Institute of the Law of the Sea	SDG1,SDG5,SDG16,SDG12,SDG11,SDG10,SDG9,SDG8,SDG4
2023	1121	Doctorate	1	D74010AG	A	Seminar on Local Government Law	Study the theory of local autonomy, explore issues related to local autonomy in our country, and clarify doubtful points in the current legal system.	2	B	Institute of the Law of the Sea	SDG13
2023	1121	Bachelor	1	B9D01968	5	English	The goal of this Freshman English course is to teach students the reading and writing skills. The textbook uses the theme-based approach to help students obtain knowledge in business and finance, science, environmental protection, and health issues.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	1	B9D01968	J	English	The main objective of this course is to improve students‘ reading skills and comprehension. Students will be asked to practice various reading skills such as thematic identification and engage in structural analyses of selected articles. They will also have the opportunity of honing their writing skills.	2	A	Institute of Applied English	SDG3,SDG10,SDG16,SDG5
2023	1121	Bachelor	1	B9D01968	H	English	The course aims to help students with pre-intermediate proficiency in English acquire the ability to read college-level materials fluently. This class presents to students major grammatical concepts of the English language and reviews the most basic vocabulary (affixes and roots, words, phrases and collocations).	2	A	Institute of Applied English	SDG1,SDG4
2023	1121	Bachelor	2	B9D023KS	A	Film and Culture (High-Intermediate)	The aim of this course is to provide students with a basis for conversation in film and to examine the inextricable link between film and contemporary culture. Class discussion, summaries and various strategies will be employed to hone student''s communication skills.	2	B	Institute of Applied English	SDG3,SDG5,SDG16,SDG10
2023	1121	Bachelor	2	B9D023KU	A	Fantasy Literature (High-Intermediate)	The aim of this course is to provide an overview of fantasy literature from the classical to the contemporary. This will cover a wide range of material across expanses of time, culture and literary forms. Through a careful selection of excerpts, we aim to define and discuss fantasy literature of today and its place on the literary map.	2	B	Institute of Applied English	SDG3,SDG10,SDG16,SDG5
2023	1121	Bachelor	1	B9D01968	8	English	This course will focus on improving students‘ English reading and listening skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4,SDG5,SDG10
2023	1121	Bachelor	2	B9D023KO	A	English Grammar and Exercises (Intermediate)	The course aims to help students become aware of, and be able to use, a variety of ways to express their ideas in writing. In this course, the emphasis is placed on doing, rather than analyzing the grammatical structures under practice. Provided with practice combining sets of sentences, students are asked to use a variety of sentence combining and expanding techniques to produce more specific, concise and fluent sentences.	2	B	Institute of Applied English	SDG1,SDG4
2023	1121	Bachelor	1	E4A01026	B	Personnel Safety and Social Responsibility	The content of this course is organized in accordance with the provisions of IMO's Model course 6.03, Model course 7.03-competence 1.21 1.4.1 3.5 3.6.1 and 1978 STCW Code Section A-VI/1, in order to enable students to become familiar with the types of shipboard operations. , characteristics, operating procedures, safe operating practices and emergency response measures.	2	A	Department of Merchant Marine	SDG3,SDG14,SDG4,SDG8
2023	1121	Master	1	T4E014Y0	A	Application of Artificial Intelligence in Marine Environment Informatics	This course will introduce the core concepts of artificial intelligence and the basic models of related technologies. The latest artificial intelligence technology is used to solve related problems faced by the marine environment, so that students can improve their artificial intelligence information technology capabilities when combining marine science with information science.	2	B	Department of Marine Environmental Informatics	SDG1,SDG10,SDG14,SDG9,SDG7,SDG4
2023	1121	Master	2	T4E024XZ	A	Visualization of marine information	This course will describe the importance and principles of data visualization and implement it using MATLAB.	2	B	Department of Marine Environmental Informatics	SDG17
2023	1121	Master	1	M8901N8A	A	The Principle of Lasers and its Applications	This course mainly allows students to understand the basic principles of laser.	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG17
2023	1121	Bachelor	2	B9D023X7	A	English Pronunciation (Intermediate)	(1) to enable students to speak English clearly and accurately; (2) to make students be aware of all aspects of pronunciation—sounds, word stress, sentence focus, rhythm, intonation, linking words, thought group and pause in conversations and essays.	2	B	Institute of Applied English	SDG4,SDG17
2023	1121	Bachelor	2	B9D023X6	A	Learning English through Pop Culture (Intermediate)	The aim of this course is to provide a deeper understanding of popular culture and the English used to construct it. This will cover a wide range of material, from fashion, music to contemporary issues. Through a selection of readings, videos, and music we aim to practice listening and speaking skills, as well as gaining a deeper appreciation for how popular culture informs of modern existence.	2	B	Institute of Applied English	SDG3,SDG5,SDG10
2023	1121	Bachelor	3	E4103K4H	A	Container Terminal Operation Theory and Practice	Let students be familiar with port container terminal planning and operations, as well as the characteristics of container yard lifting equipment, and introduce shipping-related industries, so that students have a deeper understanding of shipping, which is beneficial to students'' future career planning.	2	B	Department of Shipping and Transportation Management	SDG4,SDG14,SDG13,SDG9,SDG8

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2023	1121	Bachelor	1	E49014CA	A	Introduction to Intellectual Property Laws	Intellectual property laws mainly consists of Trademark rights, Copyrights and Patents Law. To help our students obtaining the relevant knowledge and cultivate the mind and the spirit of law-abiding, this class focuses on the scope, limits of Intellectual property rights and the reasonable access of its fair use.	2	C	Office of the Academic Affairs	SDG4,SDG16,SDG10
2023	1121	Bachelor	2	B0102D58	A	Law Enforcement on the Sea	This course introduces the theories of law enforcement at sea and the relevant practices, including domestic and international aspects. In addition to guiding the international regulatory framework and the background, the course will guide students to understand Taiwan''s laws and regulations, policy response, and relevant disputes. Students will also develop analytical and practical skills for drafting the legislative plan.	2	B	Bachelor Degree of Ocean Law and Policy	SDG8,SDG13,SDG16,SDG17,SDG14,SDG11
2023	1121	Bachelor	3	B5303N84	A	Introduction to Radar Systems	Due to the advancement of advanced semiconductor processes and the improvement of nanometer wave radar system technology, radar systems have gone from early defense and military applications to many people's livelihood applications, such as 77 GHz automotive radar and medical systems required for artificial intelligence autonomous driving. 60 GHz short-range radar for detection, security detection, and safety applications for the elderly, infants and young children. The goal of this course is to understand the principles and system architecture of radar, and to further understand the advanced technologies used in modern radar.	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1121	Bachelor	2	B011264K	A	Administrative Law: General Part	Lectures on the basic concepts, principles and structures of administrative law. Students will be guided to understand the theories and current judicial practices.	2	A	Bachelor Degree of Ocean Law and Policy	SDG3,SDG10,SDG4,SDG6,SDG5
2023	1121	Bachelor	1	E4Q01I2O	B	Fire Prevention and Basic Fire Fighting	Fitting in with request of support level of This curriculum fits with table A-III/1, STCW 95 management ability in demand of marine engineering. The course contents are basic principle of fire fighting, kinds of fire extinguisher and its agents, knowledge and responsibility of crews.	2	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	1	E4Q01DE1	A	Marine Diesel Engines (1)	The purpose of this course is to: explain the types, brands and development history of heavy diesel internal combustion engines used by modern shipping companies, as well as the major reform process towards electronic institutions, introduction and explanation of various parts of the engine structure of traditional and electronically injected internal combustion engines, and the operating principles of related systems As well as actual operation methods, comparison of old and new internal combustion engine models, explanation of internal combustion engine efficiency principles, causes and identification of faults during operation and how to eliminate and prevent them, machine parts maintenance procedures and related safety equipment systems, explanations of normal operation for engineers, and emergency procedures Operation, in response to global environmental protection policies (greenhouse effect relationship), the energy efficiency management of maritime ships addresses the future development of internal combustion engines and the adoption of new energy response measures.	2	A	Department of Marine Engineering	SDG3,SDG8,SDG11,SDG9,SDG15,SDG14,SDG13,SDG7,SDG4,SDG5,SDG6
2023	1121	Bachelor	1	B9D01968	Y	English	While learners study a language, they are expected to be able to learn the most with the awareness of their learning autonomy and the willingness to express themselves actively in learning processes. Thus, based on that, this class will help students to improve skills necessary for better successful English communication, listening and speaking, through the use of English as the medium of instruction, the use of DVD / CD, and other classroom interactive activities. This will acclimate their ears to understanding spoken English easily, and oral practices will increase their speaking fluency. In order to master English as a tool of verbal communication, emphasis will also be included on developing native-like vocabulary (idioms), speech patterns, and pronunciation. In addition, there will be frequent classroom discussions.	2	A	Institute of Applied English	SDG1,SDG4,SDG2,SDG9,SDG10
2023	1121	Master	1	M330128G	B	Special Topics on International Fishery and Aquaculture	This course is aim to instruct students to understand the development policy, strategies, current status, challenges and future prospects of International Fishery and Aquaculture.	3	B	Department of Aquaculture	SDG2,SDG8,SDG12,SDG14,SDG17,SDG13,SDG5
2023	1121	Master	1	M72011CG	A	Automated Inspection	This course aims to introduce the various components of automated inspection, and introduce relevant mathematical theoretical methods and practical application techniques, so that students have the basic ability to combine theory and practice to carry out integrated planning and design of automated inspection system equipment. This course is taught with "automated optical inspection" as the main axis, so that students can develop systematic understanding and practical application ability of automated inspection through various related exercises and implementations.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Master	2	M7212I38	D	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9,SDG17,SDG12
2023	1121	Master	1	M7201S38	A	Special Topics on Die/Mold	Qualified mold design and production have a great impact on the quality and yield of parts. Through systematic planning of mold design and production issues, students can develop and deepen their core capabilities in data collection, analysis, sorting, and writing technical reports. The extended discussion of mold-related topics inspires students'' organizational skills for induction and deduction, and enables students to have both academic theory and practical research and development capabilities.	3	B	Department of Mechanical and Mechatronic Engineering	SDG9
2023	1121	Master	1	M32014SX	A	Changing Minds Nutrition Fortified A Plus~ Hands made	The purpose of this course is to introduce the practical application of various types of food processing methods, and to explain the chemical and physical changes of raw materials during processing. How to effectively ingest high-quality protein or nutrients to improve muscle protein synthesis efficiency is an important health promotion strategy to prevent or reduce the occurrence of sarcopenia, weakness and disability.	1	B	Department of Food Science	SDG3,SDG4,SDG9
2023	1121	Master	1	M7211I38	B	Seminar	Students can improve their ability to publish papers, grasp research progress, and enhance academic and technical exchanges by participating in academic speeches and discussions.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Master	2	M7212I38	E	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M7201F71	A	Advanced Fluid Mechanics	Advanced Study on General Fluid Mechanics.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG13,SDG15,SDG14,SDG11,SDG7,SDG8,SDG10,SDG9,SDG6
2023	1121	Master	1	M7211I38	A	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	2	M7212I38	A	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4

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2023	1121	Doctorate	2	D7212I38	A	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M33014M4	C	International Marketing Management of Agricultural Products	To cultivate students' knowledge and strategic analysis ability in the international marketing of agricultural products.	2	B	Department of Aquaculture	SDG3,SDG17,SDG13,SDG12,SDG9,SDG8
2023	1121	Master	1	M33011L7	A	Comparative Reproduction	This lecture has a broadly-based introduction to the exciting and interdisciplinary field of reproduction and has designed it to be of used to advanced graduate student in biology and physiology. In addition, the comparative approach that I have discusses the difference of initial sex determination and in later sexual fate determination in the gonochorism and hermaphroditism.	3	B	Department of Aquaculture	SDG12,SDG14
2023	1121	Bachelor	2	B0102Z36	A	International Relations	The course introduces knowledge of theory and practice of international relations. Students may establish their international viewpoints, and learn independent thinking and critical analyzing on international affairs. The course is a foundation to advanced subjects.	2	A	Bachelor Degree of Ocean Law and Policy	SDG17
2023	1112	Bachelor	3	B9D03TVQ	B	Essential English	The main objective of this course is to improve students‘ reading skills and comprehension. Through a selection of well-written articles, the students will be asked to practice various reading skills such as thematic identification and analyses of written materials given. They will also have the opportunity of honing their writing skills.	0	A	Institute of Applied English	SDG10
2023	1112	Bachelor	1	B9D01969	S	English	Aiming to enhance students‘ English proficiency, the course is designed to cover the real life issues such as travel, business, athletes, culture and technology by using authentic materials and media. The content of each unit will be dedicated to the practice of four skills through lecture, group discussions, pair work, role-playing, and presentations, etc. with a view to developing students‘ critical thinking and expressing their perspectives in English.	2	A	Institute of Applied English	SDG3,SDG4,SDG17,SDG16,SDG11
2023	1112	Bachelor	3	B9D03TVQ	C	Essential English	This course will focus on improving students‘ English reading and listening skills as well as developing their grammatical and vocabulary knowledge. Moreover, this course will provide scenarios for students to use English. English for practical and academic purposes will be addressed in this course.	0	A	Institute of Applied English	SDG4
2023	1112	Master	1	M7401D62	A	Seminar on Maritime Criminal Law	The goal of this course is to enable students to understand various types of maritime crimes, as well as the controversies or dilemmas they may face in basic criminal law theory, and to seek possible solutions.	2	B	Institute of the Law of the Sea	SDG8,SDG16,SDG14,SDG10
2023	1112	Master	1	M740153A	B	Criminal Law - Kinds of Offenses	This course will teach students systematically through systematic content and explanations with examples, so that students can master the various types of crimes stipulated in the criminal law.	2	A	Institute of the Law of the Sea	SDG10,SDG16
2023	1112	Bachelor	1	B9D01969	Z	English	This course is organized around cross-cultural topics that develop all four linguistic skills: listening, reading, speaking and writing. Integrating audio-This course will focus on improving students‘ English reading and listening skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4
2023	1112	Master	1	M730150S	A	Business Research Method	On completion of this module, a student should be able to achieve some of the following goals: undertake a literature search and review, evaluate academic arguments and develop a convincing argument of their own, manage their time effectively, understand how to work productively with project supervisors, overview the qualitative and quantitative research methods, basic academic writing skill, write for academic and non-academic audiences, design a research poster, present their project orally in an effective way.	3	B	Department of Shipping and Transportation Management	SDG4,SDG17,SDG16,SDG5,SDG8,SDG10,SDG9
2023	1112	Bachelor	1	B9D01969	N	English	This course will develop your English skills in listening, speaking, reading and writing. With a variety of topics, you will practice these skills and enhance grammatical knowledge by engaging in real communication. Since you will have a lot of opportunities to practice English and discuss topics with your classmates and group members, it is important for you to come to class on time and express your opinions in class.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	1	B9D01969	4	English	To train students in the four skills of listening, speaking, reading, and writing, and to reinforce their knowledge in English vocabulary, grammar, and the American culture, so as to enable them to carry out successful communications with native speakers of English.	2	A	Institute of Applied English	SDG5,SDG12,SDG6
2023	1112	Bachelor	1	B9D01969	Y	English	While learners study a language, they are expected to be able to learn the most with the awareness of their learning autonomy and the willingness to express themselves actively in learning processes. Thus, based on that, this class will help students to improve skills necessary for better successful English communication, listening and speaking, through the use of English as the medium of instruction, the use of DVD / CD, and other classroom interactive activities. This will acclimate their ears to understanding spoken English easily, and oral practices will increase their speaking fluency. In order to master English as a tool of verbal communication, emphasis will also be included on developing native-like vocabulary (idioms), speech patterns, and pronunciation. In addition, there will be frequent classroom discussions.	2	A	Institute of Applied English	SDG3,SDG5
2023	1112	Bachelor	1	B9D01969	O	English	The main objective of this course is to improve students‘ reading skills and comprehension. Through a selection of well-written articles, the students will be asked to practice various reading skills such as thematic identification and the analyses of written materials given. They will also have the opportunity of honing their writing skills.	2	A	Institute of Applied English	SDG10
2023	1112	Bachelor	1	B9D01969	3	English	This course will focus on English reading skills, which are an essential part of language and academic development. Learners will read short passages in English and answer comprehension questions. Learners will evaluate and develop opinions, which they will be invited to share with classmates; they will develop increased confidence with English reading with various genres.	2	A	Institute of Applied English	SDG4

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Bachelor	3	B56032UJ	A	Techniques and Applications of Nondestructive Testing	At present, industrial products are pursuing precision and high-end. Non-destructive testing methods and applications have become widely used in various industrial engineering fields such as shipbuilding, electric power, petrochemicals, aerospace, electronics, manufacturing, and civil construction, and have become indispensable. missing quality solutions. Objectives of this course: 1. To enable students to gain insight into the importance of non-destructive testing in various industrial fields, and to understand the testing purposes, principles, advantages, disadvantages and applications of various testing methods. And according to the practical needs of the academic program, appropriate non-destructive testing methods can be selected and applied as the cornerstone of subsequent thesis research. 2. Enable students to understand the testing procedures of various non-destructive testing methods, establish industry-university cooperation-oriented research and practical application basis, and be able to integrate into the prerequisite course for non-destructive testing technician certificates in the future workplace. 3. Enable students to complete the content of each practical exercise unit based on the non-destructive testing practical exercise design, and fully achieve the effect of applying what they have learned. 4. Teach how to achieve high-quality special report writing and oral presentation skills to prepare for future employment as a competent engineer.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG1,SDG3,SDG7,SDG9,SDG17,SDG8,SDG4,SDG2
2023	1112	Bachelor	1	B3001L6P	A	General Chemistry Lab. (Ⅱ)	Chemistry laboratory is a connection between theory and practice. Through the hands-on activities, you will learn the scientific method and problem-solving strategy.	1	B	College of Life Sciences	SDG3,SDG9,SDG4,SDG8
2023	1112	Bachelor	3	B5703Q0G	B	Compilers	This course introduces the principles, techniques, and tools for constructing a compiler. Topics to be covered include an introduction to compilers, lexical analysis, and syntax-directed translation.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Bachelor	1	B95014JB	A	Literacy-oriented Assessment Design	1.Understanding the meaning of competency 2.Pre-service teachers can design competency-based assessment	2	H	Teacher Education Center	SDG4,SDG10,SDG16
2023	1112	Master	2	T4X22I38	A	Seminar	Improve food safety and risk communication, scientific paper reading and writing, discussion and publication skills	1	A	Institute of Food Safety and Risk Management	SDG2,SDG8,SDG11,SDG12,SDG9,SDG3
2023	1112	Bachelor	3	B52034K9	A	Special Topic Research- Application of Geographic Information System	The purpose of this course is to introduce the basic structure, related knowledge, and usage methods of geographic information systems. This special course is conducted in a practical way to enable students to have basic execution skills of geographic information systems and be able to connect and apply them with future related engineering courses.	2	B	Department of Harbor and River Engineering	SDG11,SDG13
2023	1121	Master	1	M02013VB	A	Food by-products utilization and Safety	Recognize knowledge on Food by-products utilization and Safety	3	B	Institute of Food Safety and Risk Management	SDG9,SDG14,SDG12
2023	1121	Master	1	M02014G6	A	Food and disease	To understand the relationship between food intake and chronic diseases, and the impact of healthy eating habits on the prevention and treatment of chronic diseases	2	B	Institute of Food Safety and Risk Management	SDG3,SDG15,SDG14,SDG6
2023	1121	Master	2	M7212I38	C	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M3301L05	A	Advanced Fish Taxonomy	Teach the understanding of the world's fish populations, naming regulations, memorization of scientific names, query and application of databases and illustrations, and the geographical distribution of fish families. 2021-9-28, starting from 14:10, the special course on fish taxonomy will be held remotely via GOOGLE MEET. Please click on the link below to enter the course. https://meet.google.com/fsn-xaxv-rim	3	B	Department of Aquaculture	SDG4,SDG14,SDG15
2023	1121	Master	1	M33010SZ	A	Principle and Technology of Test for Veterinary Drug Residues in Foods	Open inspection application-related courses to increase students' professional knowledge, enhance food safety concepts, strengthen laboratory management knowledge, and cultivate professional aquatic food safety inspection talents.	3	B	Department of Aquaculture	SDG1,SDG11,SDG14,SDG17,SDG16,SDG12,SDG9,SDG2,SDG3,SDG8,SDG7
2023	1121	Master	1	M33011E9	A	System of Food Safety Management and Laboratory Accreditation	This course was designed through seminar presentation, that will extend the basic knowledge of Food Safety and general requirements for the competence of testing. To cultivate domestic talents with aquaculture.	2	B	Department of Aquaculture	SDG1,SDG3,SDG8,SDG11,SDG14,SDG17,SDG16,SDG12,SDG9,SDG4,SDG2
2023	1121	Master	1	M3301U08	A	Genetic Engineering	To explain a new and rapidly growing technology and to present the principles of gene manipulation, and its associated techniques	3	B	Department of Aquaculture	SDG1,SDG3,SDG6,SDG14,SDG17,SDG13,SDG4,SDG2
2023	1121	Master	1	M33013D3	B	Fish Nutrition and Feedstuffs	This course will aim to provide a ground understanding through a holistic view to nutrition in aquaculture. It will approach the subject with due consideration of basic utilization and metabolism of finfish and ontogenetic, and their physiological features of importance to nutrition in aquaculture. This course also introduces the nutrition requirements of individual finfish species.	2	B	Department of Aquaculture	SDG4,SDG12,SDG14,SDG17,SDG13,SDG7
2023	1112	Master	2	M9D025P3	A	Academic Writing for Second Language Researchers	This course aims at improving your English academic writing skills and guiding you to write a well-organized research paper. In this course, you will learn the basic structure of a research article—Abstract, Introduction, Methods, Results and Discussion—by analyzing a set of articles of your choice and by writing these sections on your own. By the end of this course, you are expected to write a short research paper in about 10 pages and give a 20-minute presentation on your study.	3	A	Institute of Applied English	SDG4,SDG10
2023	1112	Bachelor	1	B6F21099	A	Work Shop Practice	(1) Let students understand different processing machines, their machine operation explanations and the introduction of measuring tools. (2) Use the learned technical knowledge of processing machines to facilitate the processing of parts, and ensure that the processed parts can accurately achieve the required dimensional accuracy and assembly coordination.	1	A	Department of Marine Engineering	SDG9
2023	1112	Bachelor	1	B9D01969	X	English	This course aims to help students build up their vocabulary bank and improve their listening and reading skills. Students are also expected to have a broader world-view after taking this course.	2	A	Institute of Applied English	SDG4,SDG12,SDG5
2023	1112	Bachelor	1	B9D01969	Q	English	Developing English abilities of students	2	A	Institute of Applied English	SDG4,SDG5,SDG10,SDG12
2023	1112	Bachelor	2	B9D023KS	A	Film and Culture (High-Intermediate)	The aim of this course is to provide students with a basis for conversation in film and to examine the inextricable link between film and contemporary culture. Class discussion, summaries and various strategies will be employed to hone student''s communication skills.	2	B	Institute of Applied English	SDG5,SDG10

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2023	1112	Bachelor	4	B72041OY	B	Research and Practice in Special Topics (Ⅱ)	This course is a continuation course of thematic research and implementation. In addition to continuing to focus on specific topics, it cultivates students' following abilities: collecting necessary research information, conducting actual design, assembly and operation, or using computer software to conduct simulation analysis, and organizing research Results published report. The main goal is to produce prototypes of creations or conduct physical experimental verifications other than simulations to fully present the physical results of the topic.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	1	B9D01969	B	English	Aiming to enhance students' English proficiency, the course is designed to cover the real life issues such as travel, business, athletes, culture and technology by using authentic materials and media. The content of each unit will be dedicated to the practice of four skills through lecture, group discussions, pair work, role-playing, and presentations, etc. with a view to developing students' critical thinking and expressing their perspectives in English.	2	A	Institute of Applied English	SDG4,SDG17
2023	1112	Bachelor	2	B9D023Z3	A	Classical Mythology and Arts (Intermediate)	This course aims to enhance students' listening and reading skills of English by using on-line sources related to classic mythology. Each week, in addition to exploring different websites, students can also evaluate their learning through on-line quizzes and games.	2	B	Institute of Applied English	SDG4,SDG5,SDG10
2023	1112	Bachelor	3	B7203I36	D	CapStone-Research	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	1	B7201L6K	B	General Physics Lab.	Lab. Session for General Physics (II). Students get hands-on experience from working with general physics lab.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG7
2023	1112	Bachelor	3	B3B03BAP	A	Bacterial pathogenesis	The aim of this course is to deliver knowledges about bacterial pathogenesis, virulence factors, mechanisms, detection methods, emerging infectious diseases, important clinical issues, translational medicine, and the applications in health industry, hopefully to arouse the students' interests in the infectious diseases and biomedical research.	3	B	Department of Bioscience and Biotechnology	SDG3,SDG6,SDG11
2023	1112	Master	1	T4W01N54	A	Database Management System	This course provides an introduction to fundamental concepts in the design and implementation of database systems. Topics to be covered include: overview of database system, data modeling using the Entity-Relationship (ER) Model, the Enhanced Entity-Relationship (EER) Model, SQL, and Normalization.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Bachelor	2	B9D0249Q	B	English Grammar and Exercises (Elementary)	The course aims to help students review basic grammatical concepts of the English language systematically.	2	B	Institute of Applied English	SDG4,SDG10
2023	1112	Master	1	M9C010PC	A	Local Materials and Folk Society	Historical research under the influence of the new historical trend focuses on the exploration of topics in the fields of civil society history or social and cultural history. discussion, local literature and materials have received more and more attention; this course aims to introduce local chronicles, inscriptions, and folk daily necessities Several different types of local documents and their applications, such as books, miscellaneous books, oral materials, newspapers and letters, are provided. For students' reference for future research.	2	B	Institute of Oceanic Culture	SDG4
2023	1112	Bachelor	3	B3803I38	A	Seminar	Integrate and utilize expertise in the field of marine biology	1	A	Bachelor Degree Program in Marine Biotechnology	SDG4
2023	1112	Bachelor	4	B53041ZG	A	Industrial Training	Starting from high-quality education and the concept of global partnership, we use peace, justice and sound systems to explore gender equality and reduce inequality, to facilitate dignified employment and economic development, emphasize responsible consumption and production, and commit to industrial innovation and infrastructure. We look forward to Sustainable cities and communities build good health and well-being.	9	B	Department of Electrical Engineering	SDG1,SDG9,SDG11,SDG17,SDG16,SDG12,SDG10,SDG8,SDG2,SDG3,SDG5,SDG4
2023	1112	Master	1	T4I01LOS	A	Logistics Operatio Sumulation	From the perspective of a manager, through simulation, we explore how to create the greatest value for the enterprise in logistics-related aspects.	3	B	Department of Shipping and Transportation Management	SDG4,SDG8
2023	1121	Bachelor	3	B7303L92	B	Port Administration and Management	The content of this course includes concept of port, port development and growth, port competition, port tariff, port operation and management, port case study. Students should be able to know how to evaluate the port development projects and to be familiar with the daily operation/management issues in a modern port.	2	A	Department of Shipping and Transportation Management	SDG9
2023	1112	Bachelor	1	B9D01969	I	English	This course will focus on English reading skills, which are an essential part of language and academic development. Learners will read short passages in English and answer comprehension questions. Learners will evaluate and develop opinions, which they will be invited to share with classmates; they will develop increased confidence with English reading with various genres.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	3	E4G03ISM	A	International storage and transportation management	Provide the latest development trends in international storage and transportation management, explain the main transportation methods and management rules of international goods trade, and use practical cases to discuss and analyze the decisions that government units, operators, and other stakeholders need to make in response to environmental changes and market changes. .	2	A	Department of Shipping and Transportation Management	SDG8,SDG12
2023	1112	Bachelor	2	B7202U62	A	Applied Electronics	This course familiarizes students with basic theory, analysis and design of electronic circuits with semiconduntor devices.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	3	B7203N6W	A	Mechanical and Mechatronic Engineering Laboratory (I)	To understand the practical application of the basic principles of mechanical and mechatronic engineering, and to learn the actual operation of the instruments.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	3	B720363H	A	Automatic Control Systems (Ⅱ)	1. To familiarize the procedures designing control systems 2. To understand the methods of designing PID controllers and compensators 3. To apply the state space technique in the control system design	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	3	B7203I36	F	CapStone-Research	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	1	B76013ZX	A	Social Innovation and Regional Revitalization	This course introduces theories and practices of social innovation from the global perspectives. Moreover, it also introduces how social innovation is applied to Taiwan. Recently, national policies on SDGs, USR and regional revitalization serve as important opportunities for social changes. Furthermore, policies and practices of regional revitalization in Taiwan will be introduced and serve as cases to be analyzed by the theoretical framework of social innovation. The objectives of this course are as follows. 1. Students will understand the theories and practices of social innovation from the global perspectives and how this concept is applied to Taiwan. 2. This course will provide students with methods to conduct a social innovation project. 3. This course encourages students to design and run the project by teamwork in order to facilitate the capacity of cooperation and communication.	3	B	Bachelor Degree Program in Ocean Tourism Management	SDG1,SDG5,SDG8,SDG11,SDG12,SDG10
2023	1112	Bachelor	2	B9D0249Q	A	English Grammar and Exercises (Elementary)	The course aims to help students review basic grammatical concepts of the English language systematically.	2	B	Institute of Applied English	SDG4,SDG10

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Bachelor	1	E4901ZRH	A	Read Selectively of China Ancient Humor Fables	1. This course focuses on teaching Chinese classical fables, and a total of seventeen fables (details in the table below) are selected to be studied together with the students. 2. As a literary genre, fable refers to the use of hypothetical stories or the use of personification of natural objects to illustrate principles, in order to achieve the effect of using the past to persuade the present and to use objects to satirize people, and often has the educational nature of exhortation; Only those who can understand the world and are wise can extract or create "fables" from daily life, which can be used to ridicule, warn, or persuade others in the moment. Traditional Chinese fables, those recorded in pre-Qin Dynasty, are the most original and pioneering. They are not only full of admonishment and educational significance, but sometimes also have a deep sense of humor, which has the effect of making people laugh and wake up immediately. These fables handed down since the pre-Qin Dynasty have gradually evolved into idioms due to their popularity, and they are widely circulated and familiar. However, few people today know their origin and originality. Therefore, through the establishment of this course, the lecturer has the power to act as a The role of a tour guide leads students to read original documents and enter the world where the ancients were sometimes sarcastic, sometimes humorous, and sometimes weird. 3. Strengthen the understanding of basic Chinese sentence patterns, vocabulary, and characters. 4. Learn about traditional culture and cultivate interest and ability to appreciate Chinese literature. 5. Cultivate the ability to use fluent words to express personal ideas and emotions.	2	C	Office of the Academic Affairs	SDG1,SDG2,SDG3,SDG9,SDG12,SDG16,SDG10,SDG8,SDG5,SDG4
2023	1112	Master	2	T4I02H3M	A	System Simulation	In recent years, with the rapid development of computer technology and the popularization of computer applications, system simulation can shorten test time and solve larger and complex problems. Special statistical techniques can also be used to further understand the system and formulate system improvement indicators. The goal of this course is to introduce the basic concepts of system simulation and practice it through ARENA software.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	1	T4W01SF6	A	Software Project Management	Introduce the basic knowledge and methods of project management, and strengthen the management methods of software projects and technology projects. The goal is to develop project management capabilities to ensure project success and improve project productivity.	3	B	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	3	B73031DB	A	Maritime Industry Analysis	The purpose of this course is to enhance students' competency of maritime industry analysis and insight of industry critical event. Under this premise, course would be designed by lecturer's commentary on specific issue and then followed by students' discussion and presentation. The goal of this course is to: 1. To enhance students' competency of maritime industry analysis 2. To enhance students' insight of critical event in maritime industry 3. To get familiar with environment component and operating situation of maritime industry	2	B	Department of Shipping and Transportation Management	SDG9,SDG17
2023	1112	Master	1	T4G01ITS	A	International Transportation System	From a manager's perspective, explore how international logistics companies can dynamically adopt appropriate operating strategies and formulate implementable plans in the international transportation and logistics system under existing internal corporate conditions and changing external environments to enhance the company's performance. Operational effectiveness and financial performance.	3	A	Department of Shipping and Transportation Management	SDG8
2023	1112	Master	1	T4Q01AEM	A	Applied Energy Materials	Introduce the basic properties of materials structures . Further to teach students in understanding applications of the materials characteristics. Then, the learners will catch the energy materials applied in Taiwan industries and their development.	3	B	Department of Marine Engineering	SDG7,SDG14,SDG13,SDG9,SDG12
2023	1112	Bachelor	2	B89022Q4	A	Engineering Mathematics(II)	The teaching goal of this course is to enable students to establish basic mathematical abilities to deal with natural phenomena and applied engineering problems. The content covered in this semester includes vector analysis and ordinary differential equations. The vector analysis part is initially designed to enable students to deal with problems related to electromagnetic fields and electromagnetic waves. In the long term, it can be applied to solid-state physics, fluid mechanics, gravity fields, quantum mechanics, and information science. After taking this topic, students will be familiar with scalar field gradients, vector field divergence, curl, line integrals, area integrals, volume integrals, and Leviticus-Vita notation. Ordinary differential equations refer to differential equations with a single independent variable. When dealing with dynamic problems in various disciplines, ordinary differential equations are the most commonly used mathematical tool. This part covers general solutions to first-order, second-order and higher-order differential equations, series solutions and Laplace transformations. After studying this topic, students will have the ability to (a) build models and express them in the form of differential equations (b) be familiar with the basic properties of differential equations (c) various methods of solving them	3	A	Department of Optoelectronics and Materials Technology	SDG1,SDG10,SDG4,SDG2
2023	1112	Bachelor	2	B89022Q8	A	Applied Electronics Laboratory(II)	Learn to use breadboards or Arduino UNO control boards to assemble basic electronic circuits and related application circuits. At the end of the period, you will use the Arduino UNO control board to complete the special production of a track car.	1	B	Department of Optoelectronics and Materials Technology	SDG4,SDG10,SDG5
2023	1121	Bachelor	2	E4N02412	C	English	1) Enhance conversation, vocabulary, and listening abilities in English. 2) Build up the confidence in using English. 3) Help students to meet the qualifications of the possible workplace. 4) To be more competitive in the future workplace.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	2	B9D023YR	A	Spoken English for Travel (Intermediate)	The course aims to give students the opportunities (1) to understand the general ideas of tourism English about and (2) to cope with a wide variety of travel-related situations. The course is designed for students who especially interested in overseas destinations for study, travel, working holidays or work in the near future.	2	B	Institute of Applied English	SDG3,SDG17,SDG4,SDG12
2023	1112	Bachelor	1	B9D01969	J	English	The main objective of this course is to improve students' reading skills and comprehension. Students will be asked to practice various reading skills such as thematic identification and engage in structural analyses of selected articles. They will also have the opportunity of honing their writing skills.	2	A	Institute of Applied English	SDG10
2023	1112	Bachelor	1	B9D01969	8	English	1.Listening, speaking, writing and reading skills This course will focus on improving students' English reading and listening skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	4	B72042OW	A	Heat Treatment of Metals	The structural materials for ocean engineering and construction must satisfy the requirments of high strength, high toughness and corrosion resistance. The purpose of heat treating is to make a metal more useful by changing its mechanical properties to reach the safety standard rules and the market demand. Through heat treating, a metal can be made for the harder, stronger, and more resistant to impact. The major objectives of the different kinds of thermal treatments are: soften the material for improved workability, increase the strength or hardness of the material, increase the toughness or resistance to fracture of the material, stabilize mechanical or physical properties against changes that might occur during exposure to service environments, insure part dimensional stability, relieve undesirable residual stresses induced during part fabrication	3	B	Department of Mechanical and Mechatronic Engineering	SDG8,SDG9
2023	1112	Bachelor	2	B7202S43	B	Thermodynamics (Ⅱ)	This course is to study the transformation and applications of energy and work. The thermodynamic relations of pure substances and mixtures and their applications are also covered.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9,SDG7
2023	1112	Bachelor	3	B7203T79	A	Machine Design	To study the fundamentals of mechanical components and the failure conditions under static and dynamic loadings. This course is the basic background for mechanical system design.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9

THEYEAR	AYEARSMS	ENG_DEGREE	GRACE	COURSE_NO	CLASS	ENGLISH_NAME	ENGLISH_TARGET	CREDIT	SELECT_KIND	ENG_DEPARTMENT	CONNECT_SDGS
2023	1112	Master	2	M9C021DZ	A	Seminar on the Preservation and Governance of Oceanic Culture Property	(1) Explore the significance of cultural assets and their preservation and management implications. (2) From the theory and development of cultural assets, construct humanistic thinking of marine cultural assets and cultivate care and sentiment in the humanistic field of marine society. (3) Understand the preservation and management of marine cultural assets, understand governance theories, value cultural citizen rights and citizen participation, understand marine culture and tourism policies and their relationship with national development, learn and apply cultural research methods, and The on-the-spot teaching method of theoretical narration and practical visits builds students' research knowledge on marine culture and tourism. (4) Through teaching and research that combines theoretical and practical needs, give full play to the value and opportunities provided by marine cultural administration-related industries, so that students can take into account their studies and career planning, and cultivate outstanding talents in marine cultural administration.	2	B	Institute of Oceanic Culture	SDG4,SDG17,SDG11,SDG9
2023	1112	Bachelor	3	B720315G	B	Case Study	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	3	B720315G	G	Case Study	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	3	B3B03U07	A	Genetics	Genetics is the science of the way traits are passed from parent to offspring. For all forms of life, continuity of the species depends upon the genetic code being passed from parent to offspring. Evolution by natural selection is dependent on traits being heritable. This class will be addressed through the history and development of genetics, physiology of the gene and the nature of gene action in prokaryotic and eukaryotic cells. In addition, the applications in life science and biotechnology will also be included.	3	B	Department of Bioscience and Biotechnology	SDG3,SDG4
2023	1112	Bachelor	3	B56034QZ	A	Special Topic Research - Simulation modeling and analysis of nearshore wave power	The theme of this semester's special research is "Simulation Analysis of Nearshore Wave Energy". On-site observation data and numerical simulation analysis technology are used to explore the distribution characteristics of wave potential in coastal space, which can be used as a reference for coastal disaster prevention, water-based recreation and wave energy development planning. .	2	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG14,SDG13
2023	1112	Doctorate	1	D53011FK	A	Medical Image System	Medical imaging usually refers to the science that studies image composition, acquisition and storage technology, and the research and development of instruments and equipment.	3	B	Department of Electrical Engineering	SDG3,SDG8,SDG10,SDG16,SDG11,SDG9,SDG7,SDG5,SDG4
2023	1112	Doctorate	1	D34010VK	A	Methods in Virology	In this course, students receive instruction in basic theories and advanced researches on virology. The main purposes of this course are: 1. Let students know the basic knowledge of virology. 2. Let students know the application of virology. 3. Let students know the current research on other field and consider how to apply to virological study. 4. Let students know how to search the information and/or tools to solve the virological problems.	2	B	Institute of Marine Biology	SDG14
2023	1112	Bachelor	1	E4921H61	C	Chinese	By reading the classic works of thinkers and writers, students can not only improve the foundation of their language skills, but also be able to reflect on their own life situations and attitudes towards others, so that classics can be integrated into personal life. In addition, we hope to train students' coordination, communication and oral expression skills through discussions, reports, etc.	2	A	Office of the Academic Affairs	SDG4,SDG16,SDG10,SDG5
2023	1121	Bachelor	1	E4H01IIA	A	Industrial Internship (I)	Learn through academic principles of professional and technical knowledge combined with practical workplace experience	2	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	1	E4H01T04	A	Introduction to Marine Engines	This course introduces the ship's main engine, its propulsion system and ship-related auxiliary machinery and related equipment, and establishes students' preliminary concepts in the field of marine engineering, which is helpful for further learning related theoretical and practical courses.	2	A	Department of Marine Engineering	SDG7,SDG17
2023	1121	Bachelor	1	E4N11410	A	English	The goal of this course is to make students get interested in using English to communicate with people and enhance their accuracy and fluency.	2	A	Institute of Applied English	SDG3,SDG5,SDG4
2023	1121	Bachelor	1	E4N11410	B	English	The goal of this course is to make students get interested in using English to communicate with people and enhance their accuracy and fluency.	2	A	Institute of Applied English	SDG3,SDG5,SDG4
2023	1121	Doctorate	1	D8101C1H	A	Coastal Disasters and Warning System	As global warming intensifies, environmental disasters may occur frequently in the future. This course studies recent journal articles to understand the causes of coastal disasters and how to establish early warning systems. Individual discussions will also be held in class to enhance understanding of early warning systems.	3	B	Department of Marine Environmental Informatics	SDG4
2023	1112	Bachelor	2	B9D023L3	A	English Grammar (Elementary)	This course aims at helping students recognize and understand the meaning of targeted grammatical structures, and then be able to use them meaningfully and appropriately in reading and writing.	2	B	Institute of Applied English	SDG4
2023	1112	Bachelor	3	B7203I36	I	CapStone-Research	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Bachelor	2	B7222086	A	Engineering Mathematics	This course aims to establish the mathematical ability of undergraduates in mechanical engineering. Fundamental concepts and examples of vector analysis, Fourier series, Fourier Transform, and partial differential equations are introduced in the course.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	T4A010OD	A	Port Security Policy and Assessment	In addition to enabling students to understand the relevant laws and regulations related to ISPS Code and PSC, they can also integrate analytical methods into the study of this maritime safety field in a timely manner to strengthen students' research and analysis abilities.	2	B	Department of Merchant Marine	SDG16,SDG17
2023	1112	Master	2	M7402H7N	A	Seminar on International Organizations	This course hopes to teach the theory, practice and application related to international organizations through teacher lectures, reports and discussions. In addition to introducing the norms and systems of international organizations, the course will also conduct a more in-depth analysis of relevant practices in my country. In addition to lectures and class discussions, reports will also be presented to enable students to apply what they have learned and practice their skills in collecting data and conveying information.	2	B	Institute of the Law of the Sea	SDG3,SDG17,SDG16,SDG7,SDG13,SDG14,SDG15,SDG10,SDG5
2023	1112	Master	1	T4A010O9	A	Spatial Decision Analysts	This course is a practical application course of spatial (geographical) information systems. It is aimed at the practical needs of master's and junior college students. It starts with the construction of GIS map data and various analysis functions, and introduces in detail how to apply GIS, global positioning system (GPS) and telemetry in various fields. RS related technologies, coupled with example application instructions and computer operations, enable students to not only have the basic ability to process spatial information, but also be familiar with and understand the GIS analysis process and the procedures for formulating GIS research methods to assist in solving current research, Various types of spatial decision-making problems encountered in work or life.	2	B	Department of Merchant Marine	SDG9,SDG11,SDG15,SDG16,SDG14

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2023	1112	Bachelor	3	B7203S51	B	Heat Transfer	To learn the basic physics and theories of conduction, convection and readiation. Its applications to different types of heat exchangers	3	A	Department of Mechanical and Mechatronic Engineering	SDG7,SDG13
2023	1112	Bachelor	3	B57034R3	A	Information Security Offensive and Defensive Practice	This course introduces the information security practical technical foundation. Combined with practical operation exercises, it helps students identify intrusion attacks and defenses from management and technology, and then assists enterprises to establish sound information security management and protection.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Master	1	M33012V8	B	Advanced Topics in Molecular Biology of Algae	This course focuses on the advanced biochemistry and molecular biology knowledge for algae. Materials cover algae biochemical pathway and its metabolites. The gene expression in terms of the molecular regulation mode is also contained. Besides, analytical algal gene sequences, molecular evolution, ecological significance, algae molecular biotechnology and its applications are also topics of the lectures. After the curriculum, the students can increase their understanding on how the biochemistry and molecular biological skills can be adopted in the algae research.	3	B	Department of Aquaculture	SDG1,SDG2,SDG4,SDG6,SDG9,SDG11,SDG13,SDG16,SDG17,SDG14,SDG12,SDG10,SDG8,SDG5,SDG3
2023	1112	Bachelor	3	B57030UG	M	Computer Projects (I)	Embedded systems are widely used in various applications and service fields, such as biomedical sensing and remote care platform development. The goal of this topic is to complete the implementation of topics related to biomedical sensing or embedded systems, conceive topics of interest, use past learning knowledge, break through knowledge blind spots, find solutions, and report the topic results and other integration capabilities.	3	B	Department of Computer Science and Engineering	SDG9
2023	1112	Master	1	T4G01WOM	A	Warehousing Operation Management	Modern logistics cannot eliminate the temporary storage and waiting of goods, and most of the time is spent on warehousing operations. Effective warehousing operation management is the only way to improve the efficiency of this indispensable logistics stage. This course aims to introduce the basic connotation of warehousing operations, operating systems, storage and transportation equipment and layout planning, so that students can have a complete picture and basic tools of warehousing management, and then have the ability to research and analyze warehousing management topics.	3	A	Department of Shipping and Transportation Management	SDG4,SDG9
2023	1112	Bachelor	4	E4104V90	A	Practice of Custom Duty	Understand the meaning of tariffs, tariff collection regulations and practices, and cooperate with relevant international trade knowledge and border management practices, so that learners can understand the knowledge of tariff collection and exemption for international trade import and export goods in the future, or encourage them to engage in customs related work in the future.	2	B	Department of Shipping and Transportation Management	SDG4,SDG16,SDG12,SDG10,SDG9,SDG8
2023	1112	Bachelor	3	B5603IEW	A	Special Topic Research - hydrographic survey	This course mainly introduces the principles and methods of observation systems related to river surveying and ocean surveying, and combines it with case studies related to engineering practice to stimulate students' interest in active learning and equip them with professional knowledge and abilities in ocean surveying. The goal of this course is to help students understand practical issues in ocean surveying, to familiarize students studying this topic with the research methods and practical abilities of ocean surveying issues, and to train students in their ability to search for information, conduct independent research, and write reports. Have the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3. Ability to communicate and express	2	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG9
2023	1112	Bachelor	1	B9E01618	A	Chromatics	1. Knowledge objectives: Understand the basic principles and common sense of color and how to use color chips 2. Skill goal: be able to use basic color matching principles and methods and apply 3. Affective goals: Understand the colorful life through natural colors and appreciate works of art.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1112	Bachelor	3	B5303988	A	Computer Organization	Through the content, this course not only tells students how to design current computers, but also explains the development direction of many design technologies as technology changes.	3	B	Department of Electrical Engineering	SDG4,SDG9,SDG17
2023	1112	Bachelor	1	B9E01N8D	A	E-Commerce	· Develop knowledge about the e-commerce industry · Increase understanding of e-commerce related theories · E-commerce website planning and practical operation · Marketing and selling cultural and creative goods and services	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Bachelor	3	B68033AB	A	R Programming	Learn the R programming language and develop students' ability to use R language to organize and analyze data.	3	B	Department of Transportation Science	SDG4
2023	1121	Bachelor	2	B3B024SJ	A	Functional component and biotechnology	To teach student about the knowledge of functional component and biotechnology	3	B	Department of Bioscience and Biotechnology	SDG3,SDG4
2023	1121	Master	1	M32014SW	A	Big data mining and application of microbiome	This course teaches the relationship between the composition of intestinal flora and human health, and explains how to use big data analysis of intestinal flora to assess the risk of disease, and provide personalized diet, probiotic supplements, and microbial nutrition based on test results. Health promotion methods based on precise science such as bacterial implantation. This course is jointly taught by professors and lecturers from academic, medical, big data analysis and food industry fields in the field of intestinal flora.	2	B	Department of Food Science	SDG3,SDG8,SDG9,SDG4
2023	1121	Bachelor	2	B9D023KN	B	English Listening and Reading (Intermediate)	The themes are related to SDGs (永續發展). This video-based course is to activate students` interest in learning English, to cultivate students‘ habits of using English and to improve students‘ English listening and reading abilities.	2	B	Institute of Applied English	SDG4,SDG13,SDG14
2023	1121	Bachelor	3	B5203IEA	A	Special Topic Research	Teach students an initial introduction to the tools of water resources management and system analysis, and complement each other with theory and practice.	2	B	Department of Harbor and River Engineering	SDG4
2023	1112	Bachelor	3	B7203T79	B	Machine Design	This course introduces the basics of mechanical design, including design processes, engineering mechanics and materials, failure prediction and prevention under static and dynamic loads, and various characteristics of major mechanical components such as shaft, beams, etc.	3	A	Department of Mechanical and Mechatronic Engineering	SDG7,SDG9,SDG12
2023	1112	Master	1	M7201S45	A	Design of Heat Exchangers	Introduction of various types of heat exchangers. Applying the theories of heat transfer and fluid flow, the estimation of performance is achieved. And learn how to design an efficient heat exchanger.	3	B	Department of Mechanical and Mechatronic Engineering	SDG1,SDG4,SDG7,SDG9,SDG12,SDG14,SDG16,SDG17,SDG15,SDG13,SDG11,SDG8,SDG6,SDG3
2023	1112	Master	1	M9A010E1	A	Special Topic on Teacher Professional Development	1.students can make sense of critical concepts of teacher professional development. 2.students can inquiry the models and related issues of teacher professional development. 3.students can be engaged in evaluating teacher professional development to uncrease the effectiveness of teacher professional development.	2	B	Institute of Education	SDG4,SDG17

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2023	1112	Master	2	T4I02LTA	A	Intelligent Logistics: Trends and Applications	As technology continues to evolve, Big Data (BD) is the foundation that underpins many of these new tech innovations. Data is no longer just numbers, but a vast amount of hidden business intelligence value that can bring accurate marketing and demand forecasting to business. The purpose of this course is to share the role of big data analytics in logistics management and find out the trends and applications of intelligent logistics. Through this course, participants will learn how to analyze markets and customers, identify competitive advantages, and adjust strategies to fit various nodes of logistics. By learning these skills, participants can utilize big data to solve logistics challenges.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	1	T4I01SM2	A	Service Marketing	The goal of this course is to systematically explore the theory and application of service industry marketing and management, emphasize the analysis of important concepts, and use domestic and foreign examples and life experiences to explain the practical value of academic theories, so as to enhance students' interest in service industry marketing issues. , and cultivate students' ability to analyze and solve marketing and management problems in the service industry.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	2	T4I02CBA	A	Shipping Operations and Logistics	The aim of the course is to provide students with an advanced understanding of the operations and practice of shipping industries; it will also focus on discussing the relationship between international logistics management and shipping industry.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	3	E41031A2	A	Management of cross-strait logistics and clearance practice	1. The goal of this course is to discuss the issues of customs clearance of goods and logistics management from the perspective and practice of international trade and goods circulation laws and regulations. In view of the increasingly close cross-strait economic and trade exchanges, no matter in the promotion of cross-strait trade or the establishment of a cross-strait international logistics model, it is necessary to have an understanding of the customs clearance regulations and practices of both sides before they can be implemented. 2. The design of this course can be roughly summarized into four key points: (1) Explain the goods border management system, including logistics management and mainland goods management system (2) Introduce customs clearance procedures for imported goods, including customs declaration, inspection, sub-assessment and release procedures (3) Introduce customs clearance procedures for export goods, sea and air express goods, bonded and free trade goods (4) I	2	B	Department of Shipping and Transportation Management	SDG4,SDG17,SDG9,SDG10,SDG12,SDG8
2023	1112	Master	2	T4I02I73	A	Strategic Management	From the perspective of strategic management procedures, learners can apply various strategic management concepts to real situations.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	2	T4I22J25	A	Thesis	N	3	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	2	B6A0216S	A	Research in Special Topics (I)	This course is mainly based on training undergraduate students to innovate ideas and put them into practice. It uses basic academic theories and relevant practical methods to implement innovative ideas step by step. It is expected to match academic theory with practice to cultivate innovative ideas among undergraduate students. competitiveness.	1	B	Department of Marine Engineering	SDG5,SDG14,SDG10,SDG7,SDG8,SDG9
2023	1112	Bachelor	2	B6A02R44	A	Auxiliary Machinery	By introducing the basic principles and functions of various important ship auxiliary engines, students will be able to quickly grasp the situation and take charge of their own affairs even if they are faced with a power field system that they have never been exposed to in the future career of marine engineers. .	3	A	Department of Marine Engineering	SDG4,SDG7,SDG9,SDG13,SDG14,SDG8
2023	1112	Bachelor	3	B7103E86	B	Practice of Navigation	This course complies with the International Maritime Organization (IMO) Model Course 7.03-1.1.7 METEOROLOGY Meteorology Contains:1.1.7.1~12 Learn meteorological theory and the characteristics of various weather systems, including tropical storms and avoiding storm centers and Knowledge of dangerous quadrants, understanding weather analysis and forecasting, tropical cyclone characteristics and avoidance, and meteorological data search Integrate sources and the operation and operation of relevant weather navigation systems currently used by ships to enhance ship navigation Safety is the goal	2	B	Department of Merchant Marine	SDG13,SDG17
2023	1112	Master	2	M9D024PG	A	Topics in Language Learning Strategies	This course introduces students to research on language learning strategies. We will discuss current and controversial issues most important to strategies for learning a second/foreign (L2) language. These issues include, but are not limited to, strategy definition and classification, strategy role flexibility, strategy training, strategy use versus self-regulation, strategy use in relation to the four skills, and how/whether internal and external variables affect strategy use. Classroom discussions and presentations will focus on strategy research in the 1970s (e.g., Rubin, 1975), the 1980s (e.g., O' Malley, Chamot, Stewner-Manzanares, Küpper, & Russo, 1985), the 1990s (e.g., MacIntyre & Noels, 1996), and the new millennium (e.g., Ardasheva & Tretter, 2013; Griffiths, 2015; Oxford, 2017; Thomas & Rose, 2018; Thomas, Rose, & Pojanapunya, 2021; Pawlak, 2021; Choi & Loewen, 2022; Sun, 2022). Suggested papers for classroom discussions and presentations are listed on	3	B	Institute of Applied English	SDG1,SDG10,SDG17,SDG4
2023	1112	Master	1	T4F01P9K	A	Research on Qualitative Approach	(1) Let students understand the theories and methods of qualitative research. (2) Let students enter the actual field to practice qualitative research skills. (3) Improve students' ability to interpret and reflect on literature. (4) Improve students' sensitivity to educational issues.	2	B	Institute of Education	SDG4
2023	1112	Bachelor	2	B5322P18	A	Lab for Electronics	Training the students in experiments and increaseing the understanding of electronics.	1	A	Department of Electrical Engineering	SDG4,SDG8,SDG9,SDG5
2023	1121	Bachelor	2	B7302I01	A	Practices of International Trade	This course mainly explains the international trade operation process from a practical perspective, leading students to enter the field of international trade. The teaching content includes: introduction to international trade, explanation and application of trade conditions and the latest version of the International Trade Regulations (Incoterms 2020), import cost analysis, inquiry quotation and commitment practices, explanation of letter of credit documents, and International Trade English exercises, etc. It is hoped that students will have the practical ability to operate international trade after completing the course.	3	A	Department of Shipping and Transportation Management	SDG8,SDG17
2023	1112	Bachelor	3	E4103I01	A	Practices of International Trade	This course mainly explains the international trade operation process from a practical perspective, leading students to enter the field of international trade. The teaching content includes: introduction to international trade, explanation and application of trade conditions and the latest version of the International Trade Regulations (Incoterms 2020), import cost analysis, inquiry quotation and commitment practices, explanation of letter of credit documents, and International Trade English exercises, etc. It is hoped that students will have the practical ability to operate international trade after completing the course.	3	A	Department of Shipping and Transportation Management	SDG8,SDG12,SDG17

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2023	1112	Bachelor	2	B5302T86	A	Probability Theory	Study the basic theoretical probability concepts	3	A	Department of Electrical Engineering	SDG4
2023	1112	Bachelor	2	B5302P49	B	Electromagnetic Waves	Introduce the concept of time dependent wave propagation in free space, material space and wave guiding structures	3	A	Department of Electrical Engineering	SDG4,SDG8,SDG9
2023	1112	Bachelor	3	B5343P23	L	Electrical Lab.	Through systematic implementation, students' abilities to learn independently, solve problems independently, and complete system topics are established.	1	A	Department of Electrical Engineering	SDG1,SDG9,SDG2,SDG4
2023	1112	Master	1	M570149Y	A	Game Engine Design and Implementation	Learning the techniques of game engine design and implementation. Learning computer game programming paradigm	3	B	Department of Computer Science and Engineering	SDG4,SDG9,SDG8
2023	1112	Master	1	M67010VB	A	Simulations and Measurements of Communication Systems	With self-designed teaching materials and measurement systems, students can understand the performance of various communication technologies and system simulation architecture in communication systems.	3	B	Department of Communications Navigation and Control Engineering	SDG9,SDG11
2023	1121	Bachelor	1	E4901ZRI	A	Read selectively of China ancient fables (2)	1. This course focuses on teaching Chinese classical fables and is an in-depth course following "Selected Readings on Humorous Fables Part 1". 2. Choose a total of thirty fables (details in the table below) to study together with your classmates. 3. As a literary genre, fables refer to the use of hypothetical stories or the use of personification of natural objects to illustrate principles, in order to achieve the effect of using the past to persuade the present and to use objects to satirize people, and often have an educational nature of exhortation; Only those who can understand the world and are wise can extract or create "fables" from daily life, which can be used to ridicule, warn, or persuade others in the moment. Traditional Chinese fables, those recorded in pre-Qin Dynasty, are the most original and pioneering. They are not only full of admonishment and educational significance, but sometimes also have a deep sense of humor, which has the effect of making people laugh and wake up immediately. These fables handed down since the pre-Qin Dynasty have gradually evolved into idioms due to their popularity, and they are widely circulated and familiar. However, few people today know their origin and originality. Therefore, through the establishment of this course, the lecturer has the power to act as a The role of a tour guide leads students to read original documents and enter the world where the ancients were sometimes sarcastic, sometimes humorous, and sometimes weird. 4. Strengthen the understanding of basic Chinese sentence patterns, vocabulary, and characters. 5. Learn about traditional culture and cultivate interest and ability to appreciate Chinese literature. 6. Cultivate the ability to use fluent words to express personal ideas and emotions.	2	C	Office of the Academic Affairs	SDG1,SDG16,SDG17,SDG12,SDG3,SDG5,SDG8,SDG10,SDG4,SDG2
2023	1121	Bachelor	3	B0103H70	A	International Law of the Sea	The main goal of this course is to assist students in understanding the law of the sea systematically. The content will focus on the relationship between the state as the law enforcement body of the law of the sea and global governance. This course is supplemented by relevant judicial precedents to help students understand the core concepts and the current development of the law of the sea.	2	A	Bachelor Degree of Ocean Law and Policy	SDG7,SDG13,SDG16,SDG17,SDG14,SDG12
2023	1121	Bachelor	2	B01121S0	A	Civil Law: Property	The objective of this course is to help students grasp solid concept of the rights in rem of civil code regulations. This class will also focus on various civil code case studies as well as intra-class discussions on related hypo exercise.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG10,SDG16
2023	1121	Bachelor	3	B0103D08	A	Maritime Law	1. Students should be able to understand and understand the relationship between my country’ s maritime law and relevant international conventions, practices or foreign laws, as well as the development trends of international maritime law. 2. Students should be able to correctly state the relevant provisions, basic theory and practice or doctrinal disputes of my country’ s current maritime law. 3. When students encounter relevant factual statements, they should be able to confirm the legal disputes caused by the facts, state the relevant regulations and principles, and explain why the regulations and principles can be applied to the facts, so as to resolve the legal disputes.	2	A	Bachelor Degree of Ocean Law and Policy	SDG3,SDG9,SDG16,SDG11,SDG8,SDG4
2023	1121	Bachelor	3	B01131RZ	A	Civil Procedure Law	Introduction to the theory and operation of civil procedure	2	A	Bachelor Degree of Ocean Law and Policy	SDG16
2023	1121	Bachelor	1	B01111RW	A	Criminal Law: General Part	This course aims to guide students to understand the basic knowledge of the general principles of criminal law and assist students in reading relevant textbooks independently.	2	A	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1112	Bachelor	2	B9502Y1M	A	Instructional Internship for Subjects of Fisheries and Aquatic Science	1. To understand the fisheries and aquatic science subject''s current teaching activities and classroom management practices. 2. Observe and observe the teaching of related subjects and analyze the procedures and steps of teaching activities. 3. Use teaching methods and strategies flexibly to design lesson plans. 4. Validate teaching theory or theories through simulated teaching experiences. 5. Try to establish their teaching model through self-reflection and joint discussion.	2	H	Teacher Education Center	SDG4
2023	1112	Bachelor	2	B5702P98	B	Introduction to Algorithms	Continuing the studies of data structure, this course introduces well-known algorithms and their analyses. By learning and practicing the design and analysis of algorithms, the students can enhance their intelligence and skills of programming.	3	A	Department of Computer Science and Engineering	SDG4,SDG9
2023	1112	Bachelor	1	B5701NNY	B	Service-Learning Program-Campus Service(Ⅱ)	Through labor service, school cleaning activities, etc., students can cultivate the spirit of service.	0	T	Department of Computer Science and Engineering	SDG4,SDG5
2023	1112	Bachelor	3	B57030UG	F	Computer Projects (I)	This course is designed to provide important topics in bioinformatics and medical informatics. Students are able to learn about problems involved in the big data analysis of biological/medical data such as genomic sequences, protein structures, medical imaging, and National Health Insurance Research Database. The course is intended to provide good understanding of the commonly used algorithms in the analysis of genomic and medical data, and hands-on experiences with accessing and using relevant big datasets.	3	B	Department of Computer Science and Engineering	SDG4,SDG5
2023	1112	Bachelor	1	B5701S60	B	Linear Algebra	Linear algebra provides an important tool for dealing with problems in the fields of applied sciences, including computer and information sciences. We will briefly explain how this course related to other courses available on campus. We will begin with the concept of vectors which the students are familiar with in high school, then introduce some abstract notions in algebra, and use some software packages to do the computations simultaneously.	3	A	Department of Computer Science and Engineering	SDG6
2023	1112	Bachelor	1	B5701S60	A	Linear Algebra	Linear algebra provides an important tool for dealing with problems in the fields of applied sciences, including computer and information sciences. We will briefly explain how this course related to other courses available on campus. We will begin with the concept of vectors which the students are familiar with in high school, then introduce some abstract notions in algebra, and use some software packages to do the computations simultaneously.	3	A	Department of Computer Science and Engineering	SDG4
2023	1112	Master	2	T4J02Q92	A	Seminar in Managerial Accounting	Introduce cost concepts, planning and control methods of various cost elements and various cost accounting systems, so that students can understand how costs incurred in enterprise production activities are accumulated, how to allocate them to products or services, how to record them, and be able to reorganize and analyze relevant information. , to assist managers in the formulation, planning, control, and performance evaluation of different decisions to achieve corporate goals.	3	A	Department of Shipping and Transportation Management	SDG4
2023	1112	Bachelor	3	B8903I3J	F	Independent Study(II)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4

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2023	1112	Bachelor	4	B81044GD	A	Topics on Coastal Environmental Protection	This course mainly introduces phenomena such as nearshore currents, coastal sand drifting and terrain changes due to the shallowing of water depth and the existence of structures when ocean waves are transmitted to coastal waters. It will also introduce the impact of coastal structures on the environment, and Explain what strategies are available for coastal environmental protection.	3	B	Department of Marine Environmental Informatics	SDG9,SDG15,SDG14
2023	1112	Bachelor	3	B6A03625	A	Automatic Control	Let students understand the basic theory and application of control engineering. Through the discussion of theory and practice, the application of control engineering will be introduced to students, and it will serve as a good entry foundation for students who are interested in working or researching in control engineering in the future.	3	A	Department of Marine Engineering	SDG4,SDG9
2023	1112	Bachelor	1	B5721M97	B	Calculus	It is hoped that students can learn how to use mathematical language to think and build their ability to analyze and solve problems from the complete basic mathematical knowledge of calculus.	3	A	Department of Computer Science and Engineering	SDG4
2023	1112	Bachelor	4	B57040QM	A	Object-oriented Software Engineering	1. Understand the background of object-oriented software engineering 2. Understand the basic object-oriented software engineering life process 3. Understand object-oriented software design and architecture 4. Understand the tools used in each stage of object-oriented software engineering.	3	B	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	4	B73041K3	A	Across-Strait Customs Bonded System and Physical Distribution Management	(1) Overview: 1. Introduction to cargo customs clearance procedures 2. Cross-Strait bonded systems and regulations 3. Overview of cargo customs clearance procedures and logistics in each bonded zone (2) Cross-Strait bonded business types and customs clearance practices 1. Introduce the establishment conditions, business functions, preferential measures and logistics operation models of various bonded business types under the cross-strait bonded system. 2. Customs clearance procedures and management practices for goods in various types of bonded zones in my country, including: (1) Foreign goods are stored in bonded warehouses, logistics centers and bonded warehousing goods are sold to taxable areas, bonded areas and transshipment exports, customs clearance procedures and logistics management of goods. (2) Foreign raw materials, declaration and transportation to bonded processing factory areas (bonded factories, scientific industrial parks, processing export zones and agricultural science and technology parks, etc.), cargo customs clearance procedures and logistics management (3) The declaration, transportation and export of bonded goods or their raw materials manufactured by bonded processing to taxable areas or bonded areas, customs clearance procedures and logistics management. (4) Circulation management of bonded goods in bonded areas and duty-free goods in free trade ports 3. Introduce the customs clearance procedures and logistics management of goods in mainland China’ s bonded areas (bonded warehouses, export supervision warehouses and logistics centers), bonded port areas, and export processing zones. 4. Integrate laws and regulations related to customs clearance of bonded goods into the work process, and help students obtain specific bonded practical concepts through practical information explanations, physical process explanations, and invitations to external experts to give lectures. (3) Integrated architecture 1. Bonded system and bonded goods supply chain management 2. Value-added integration services for the free circulation of goods in the free trade port zone. 3. Discussion on how Taiwanese enterprises use bonded zones and free trade port areas, complementary logistics operation models, and foreign goods import, transshipment, export, and cargo transshipment to build a global	2	B	Department of Shipping and Transportation Management	SDG4,SDG9,SDG8
2023	1112	Bachelor	2	B5302D81	B	Signals and Systems	To develop in parallel the methods of analysis for continuous-time and discrete-time signals and systems. By emphasizing the similarities between continuous- and discrete-time domains, students can share insights and intuition developed in each domain.	3	A	Department of Electrical Engineering	SDG3,SDG9,SDG4,SDG8
2023	1112	Bachelor	3	B5303P13	A	Electronic Circuits	To teach students to have basic knowledge and analysis abilities of electronic circuit, with which the students will apply the profession on the course of communication, control, computer, etc.	3	B	Department of Electrical Engineering	SDG4,SDG9
2023	1112	Master	1	M670184A	A	Queueing Theory	To introduce the fundamental concepts in queueing theory and its applications to diverse areas such as telecommunication networks, computer science, management science, and business	3	B	Department of Communications Navigation and Control Engineering	SDG11
2023	1112	Master	1	M6701N14	A	Intelligent Systems	Introduce the basic principles and applications of fuzzy systems, genetic algorithms, neural networks and hybrid intelligent systems	3	B	Department of Communications Navigation and Control Engineering	SDG9
2023	1112	Master	1	M6701T17	A	Adaptive Control	Introduce the composition principles and analysis and design issues of adaptive control systems.	3	B	Department of Communications Navigation and Control Engineering	SDG9
2023	1112	Master	1	M6701R9N	A	Digital Modulation Techniques	Understand the performance analysis of various modulation technologies in digital communication systems	3	B	Department of Communications Navigation and Control Engineering	SDG9,SDG11
2023	1121	Bachelor	2	B8102997	A	Computer Application	Understand the application of EXCEL in science and engineering	3	B	Department of Marine Environmental Informatics	SDG4
2023	1121	Bachelor	1	E4Q01P41	A	Electric Circuit	Circuit science is an important introductory subject for students in the Department of Marine Engineering to study motor-related courses. The concepts of circuit science will be used in subsequent electronics, electrical machinery, power systems, and even control theory. This course is intended to introduce circuit components and circuit analysis step by step, including DC analysis, AC analysis and network characteristic analysis. It is hoped that it can develop students' basic understanding and concepts about circuits and motor courses.	2	A	Department of Marine Engineering	SDG11
2023	1121	Bachelor	3	B81032XC	A	Julia Language Programming	The Julia Language is a new programming language used by engineers and scientists. It''s syntax is similar to Matlab''s, but it is an open source that we can freely use. Moreover, it is faster, and we can just writing the Julia Language via some internet browsers.	3	B	Department of Marine Environmental Informatics	SDG13,SDG17
2023	1121	Bachelor	1	B5201012	A	Computer Programming in FORTRAN	A prime introduction of FORTRAN programming	2	B	Department of Harbor and River Engineering	SDG4
2023	1121	Bachelor	2	B5202076	A	Engineering Statistics	Emphasizes the practical application and relevance of probability concepts in engineering, with special emphasis on applications in civil, water conservancy and environmental engineering.	3	B	Department of Harbor and River Engineering	SDG4
2023	1121	Master	1	M7201R97	A	Digital Image Processing	This course introduces digital image processing techniques in the form of unit topics. Through practical programming, both theory and practice are emphasized. The teaching objectives of this course are to provide students with an understanding of the fundamentals of image processing and to develop practical skills.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4

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2023	1121	Bachelor	3	B5203IEG	A	Special Topic Research	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3	2	B	Department of Harbor and River Engineering	SDG9
2023	1112	Master	2	M9A0227V	A	Special Topic on Marine Professionals Cultivation	1. Understand marine industry category 2. Understand marine talent cultivation concept 3. Investiage the problems of marine talent cultivation 4. Develop the problem solution ability of marine talent cultivation	2	B	Institute of Education	SDG8,SDG14,SDG11
2023	1112	Bachelor	2	B6A031CN	A	Research in Special Topics (II)	The application of computational fluid dynamics (CFD) to engineering problems, rather than grid-building techniques, discretization methods, CFD algorithms, or numerical stability.	1	B	Department of Marine Engineering	SDG6,SDG12,SDG9
2023	1112	Bachelor	1	B6F21099	B	Work Shop Practice	(1) Let students understand the work method of fitter. (2) Use the processing technology you have learned to facilitate the processing of parts, and ensure that the processed parts can accurately achieve the required dimensional accuracy and assembly fit.	1	A	Department of Marine Engineering	SDG9
2023	1112	Bachelor	2	B7602PST	A	Personal Survival Techniques	To meet the madatory minimum requirement in the content of IMO Model Course 1.23 and 1.24	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG17
2023	1112	Doctorate	1	D32014J2	A	Application of biopolymer in applied microbiology	This course is designed for students who are interested in the latest research of biopolymers in applied microbiology and application of natural antibacterial agents.	2	B	Department of Food Science	SDG3,SDG12,SDG14,SDG15,SDG13,SDG11,SDG6,SDG9,SDG7
2023	1112	Master	1	M9C010LG	A	Special Topics on History of Modern Sino-foreign Relationship	There are numerous examples of the intersection of Eastern and Western civilizations in world history, such as Alexander's Eastern Expeditions, Crusades, Mongol Large-scale war operations such as the Ancient Western Expedition all fall into this category and have also had a major impact on both Europe and Asia: trade Prosperity, circulation of materials, mutual transfer of key technologies, changes in religious concepts, etc. Since modern times, Western Europe European countries brought industrial civilization, capitalist civilization, and maritime civilization to the East, creating a gap between Eastern and Western civilizations. It not only brings new contacts and conflicts between them, but also leads to a large number of cultural exchanges and exchange of ideas between them. After all this time What impact and changes have the exchanges between Eastern and Western civilizations had on traditional Eastern civilization? This course will try to learn from different Oriented, analyzed and presented one by one	2	B	Institute of Oceanic Culture	SDG4,SDG17,SDG10,SDG8
2023	1112	Bachelor	4	B5204136	A	Middle Fluid Mechanics	Introduces fluid properties, fluid motion laws and analysis, and also introduces dynamic characteristics and analysis of various fluids.	3	B	Department of Harbor and River Engineering	SDG4
2023	1112	Bachelor	2	B7702NNY	A	Service-Learning Program-Campus Service(Ⅱ)	This course is major to cultivate the maintaining and service spirit in campus, and then extend the service sentiment toward to society and country.	0	T	Bachelor Degree Program in Ocean Business Management	SDG3,SDG4
2023	1112	Bachelor	2	B5702P98	A	Introduction to Algorithms	Continuing the studies of data structure, this course introduces well-known algorithms and their analyses. By learning and practicing the design and analysis of algorithms, the students can enhance their intelligence and skills of programming.	3	A	Department of Computer Science and Engineering	SDG4,SDG9
2023	1112	Bachelor	3	E4B03444	A	Production and Operations Management	Production and operation management aims to teach students to understand the connotation and practices of production operation management, hoping to use the most effective methods to improve operation efficiency, eliminate waste and reduce costs, so as to increase the overall profits of the enterprise.	2	B	Department of Shipping and Transportation Management	SDG12
2023	1112	Master	1	M9D014PH	A	Academic Writing Research	This course is designed to provide the students with a thorough understanding of research in academic writing. It will cover a range of topics. These include researching academic writing and writers, collecting and analyzing qualitative data, studying the effects of study-abroad experiences on EFL writers and analyzing the writing assignments and writing problems of master and doctoral students. In addition, faculty perceptions of academic writing and pedagogical issues will be discussed. Students are expected to participate in the discussions each week. At the end of the semester, students will need to submit a final report based on the research projects discussed in class.	3	B	Institute of Applied English	SDG4
2023	1112	Bachelor	3	B73034R0	A	Port Logistics Practice	Understand the practical work of port logistics operations, warehousing management, ocean express logistics, bonded warehouses, port logistics sales, green port logistics, digital logistics and information security, port blockchain construction and application, etc.	3	B	Department of Shipping and Transportation Management	SDG8,SDG14,SDG11,SDG9
2023	1121	Bachelor	3	B3203A29	A	Food Products Technology Lab. (I)	The purpose of this course is to introduce the practical application of various types of food processing methods, and to explain the chemical and physical changes of raw materials during processing.	2	A	Department of Food Science	SDG4
2023	1121	Master	2	M7302L92	B	Port Administration and Management	After the academic semester, students in this class are expected to 1.Have in-depth knowledge on the port operation practice and management, 2.Understand theories and practices on port planning and development, 3.Learn the port planning and design skills.	3	A	Department of Shipping and Transportation Management	SDG10,SDG13,SDG14,SDG17,SDG11
2023	1112	Master	1	M67013G8	A	Introduction to Quantum Information	Quantum information science is a popular research field in recent years. It is an information science based on the concept of the existence of quantum effects in physics. Quantum information covers a wide range of issues. This course focuses on introducing quantum communication, quantum measurement and calculation, and necessary core mathematical tools, including linear algebra and probability.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1112	Master	1	M67015AQ	A	Orthogonal Frequency Division Multiplexing Wireless Communications	To enable students to become familiar with the operating principles and actual system architecture of system specifications, modulation technology, interference countermeasures, etc. in orthogonal frequency division multiplex wireless communication systems.	3	B	Department of Communications Navigation and Control Engineering	SDG9,SDG11

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2023	1121	Bachelor	1	E4901ZRJ	A	Read selectively of Liu Bo Wen—Yu Li Zi fables	1. This course focuses on teaching the fables of "Yu Ion" written by Liu Ji in the Ming Dynasty. A total of seventeen fables (details in the table below) are selected to be studied with the students. 2. As a literary genre, fable refers to the use of hypothetical stories or the use of personification of natural objects to illustrate principles, in order to achieve the effect of using the past to persuade the present and to use objects to satirize people, and often has the educational nature of exhortation; Only those who can understand the world and are wise can extract or create "fables" from daily life, which can be used to ridicule, warn, or persuade others in the moment. The fables of "Yu Ion" are not only full of admonishment and educational significance, but also sometimes have a sense of humor, which has the effect of making people wake up immediately when they are laughing. There are many popular works. Through the creation of this course, the instructor can play the role of a tour guide, leading students to read the original documents and enter the world of "Yu Ion" that is sometimes satirical and sharp, sometimes humorous, and sometimes weird and wonderful. 3. Strengthen the understanding of basic Chinese sentence patterns, vocabulary, and characters. 4. Learn about traditional culture and cultivate interest and ability to appreciate Chinese literature. 5. Cultivate the ability to use fluent words to express personal ideas and emotions	2	C	Office of the Academic Affairs	SDG1,SDG2,SDG4,SDG8,SDG12,SDG17,SDG16,SDG10,SDG5,SDG3
2023	1121	Bachelor	2	B0102808	A	Legal English (I)	This course aims to provide an overview of the principles, techniques, and skills concerning the use of the English language in a legal context and build the foundation for advanced legal learning in English. Students will be provided with the opportunities to approach the various aspects of the essential skills, reading, writing, listening and speaking, through lectures, exercises, and individual feedback.	2	B	Bachelor Degree of Ocean Law and Policy	SDG16
2023	1121	Bachelor	4	B01043B9	A	Shipping Business Practice	1. In order to enable students to understand the practical operation of the shipping industry, combine theory with practice. 2. Internship unit: Evergreen Marine Corporation and member companies of the Taipei Maritime Contractors Association	2	B	Bachelor Degree of Ocean Law and Policy	SDG3,SDG9,SDG11,SDG16,SDG14,SDG10,SDG8,SDG4
2023	1121	Bachelor	1	B010128W	A	Political Science	This undergraduate level course introduces the basic concept of political science. This course also selects the case and phenomenon of real politics for helping students to achieve a broad understanding of political science. The aim of the course is to make students to observe and to assess political issues with independent thinking.	2	A	Bachelor Degree of Ocean Law and Policy	SDG1,SDG5,SDG7,SDG17,SDG16,SDG13,SDG11,SDG10,SDG8,SDG6,SDG4,SDG2,SDG3
2023	1121	Bachelor	3	B810391Q	A	Ocean Current	Students can learn to understand how ocean current/circulation is formed under the effect of earth rotation.	3	B	Department of Marine Environmental Informatics	SDG4,SDG13,SDG14
2023	1121	Bachelor	2	B011253A	A	Criminal Laws: Special Part	This course aims to guide students to understand the basic knowledge of criminal law and assist students in reading relevant textbooks independently.	2	A	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1121	Bachelor	1	B0101NNX	A	Service-Learning Program-Campus Service(I)	The goal of this course is to cultivate students' attitudes and abilities in caring for and serving the population and the environment through their participation in various activities and professional service processes.	0	T	Bachelor Degree of Ocean Law and Policy	SDG4,SDG5,SDG10,SDG6
2023	1121	Bachelor	3	B01131RV	A	Criminal Procedure Law	This course aims to guide students to understand the basic knowledge of criminal procedure law and assist students in independently reading relevant reference books and journal articles.	2	A	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1121	Bachelor	3	B01132H3	A	Civil Law：Special Part of Obligations	Civil law is an important standard for resolving disputes between private individuals. Each treatise on debt stipulates the validity of contracts that may occur in social transactions and serves as the criterion for our social transactions.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG5,SDG10
2023	1121	Bachelor	1	B8101NNX	A	Service-Learning Program-Campus Service(I)	The goal of the service-learning course is to help students maintain the learning environment, help students better understand the learning environment, develop the habits of responsibility, self-discipline, hard work, and service, increase friendship, cooperation, and interaction among students, and also serve as a guide to the next user. respect etc.	0	T	Department of Marine Environmental Informatics	SDG3,SDG6
2023	1121	Bachelor	2	B8112T84	A	Probability and Statistics	Introduce basic probability and statistical principles, and train in using computers for statistical analysis to deepen your understanding of the principles.	2	A	Department of Marine Environmental Informatics	SDG1,SDG4,SDG9,SDG17,SDG8,SDG3,SDG2
2023	1112	Bachelor	4	E4B04501	A	Business Policy	1. Understand the connotation of corporate strategy 2. Understand the procedures for corporate strategy formulation, as well as data analysis methods and models 3. Case analysis and discussion, and be familiar with the actual operation of the company	2	B	Department of Shipping and Transportation Management	SDG4
2023	1112	Master	1	T450108T	A	Engineer Disater and Prevention Techniques	First, we introduce the disaster prevention systems, organizational rights and responsibilities, and operating mechanisms of my country, the United States, and Japan, and compare their advantages and disadvantages. Introduce the types, theories and characteristics of various natural, man-made and engineering disasters, such as earthquakes, typhoons, flooding, slope disasters, landslides, etc. It also discusses possible disasters and prevention technologies such as geological hazards, land use, hazardous soil, earthquakes, tsunamis, near-shore disasters, slope disasters, underground engineering, etc. from the engineering environment, and discusses them from the four sequences of disaster reduction, preparation, response, and recovery and reconstruction. Contents and key points of disaster prevention planning and emergency response planning standard operating procedures. Discuss the application of disaster prevention information, communications and emerging technologies in disaster prevention, cultivate students' understanding of engineering disaster prevention, and then learn the application of engineering in disaster prevention	3	B	Department of Harbor and River Engineering	SDG11
2023	1112	Bachelor	3	B5343P23	H	Electrical Lab.	Instruct students to carry out special topics on antenna simulation and practical application, so as to understand the principles and application directions of antennas.	1	A	Department of Electrical Engineering	SDG4
2023	1112	Bachelor	3	B6A031CN	B	Research in Special Topics (II)	It is expected that students who study the second topic of this topic can cooperate with each other to prove the theory and practice of electromechanical and system integration technology.	1	B	Department of Marine Engineering	SDG4,SDG8
2023	1121	Bachelor	3	B3203A29	B	Food Products Technology Lab. (I)	The purpose of this course is to introduce the practical application of various types of food processing methods, and to explain the chemical and physical changes of raw materials during processing.	2	A	Department of Food Science	SDG4

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2023	1112	Master	1	M50012UJ	A	Techniques and Applications of Nondestructive Testing	At present, industrial products are pursuing precision and high-end. Non-destructive testing methods and applications have become widely used in various industrial engineering fields such as shipbuilding, electric power, petrochemicals, aerospace, electronics, manufacturing, and civil construction, and have become indispensable. missing quality solutions. Objectives of this course: 1. To enable students to gain insight into the importance of non-destructive testing in various industrial fields, and to understand the testing purposes, principles, advantages, disadvantages and applications of various testing methods. And according to the practical needs of the academic program, appropriate non-destructive testing methods can be selected and applied as the cornerstone of subsequent research on the thesis of the institute. 2. Enable students to understand the testing procedures of various non-destructive testing methods, establish industry-university cooperation-oriented research and practical application basis, and be able to integrate into the prerequisite course for non-destructive testing technician certificates in the future workplace. 3. Enable students to complete the content of each practical exercise unit based on the non-destructive testing practical exercise design, and fully achieve the effect of applying what they have learned. 4. Teach how to achieve high-quality special report writing and oral presentation skills to prepare for future employment as a competent engineer.	3	B	College of Engineering	SDG1,SDG3,SDG4,SDG8,SDG17,SDG9,SDG7,SDG2
2023	1121	Bachelor	2	B7312D08	A	Maritime Law	The objective of this course is to help the students in grasping solid concept of Maritime Act.	2	A	Department of Shipping and Transportation Management	SDG14,SDG16,SDG17
2023	1112	Bachelor	2	B9D023KW	A	English Conversation (High-Intermediate)	Course Description and Objective: The objective of this course is to increase the student’ s spoken English communication skills by: •improve fluency with regular speaking practice •enhance pronunciation •develop grammatical accuracy •expand vocabulary •increase confidence	2	B	Institute of Applied English	SDG4
2023	1112	Master	2	M73021AX	A	Sipping Derivatives and Risk Management	This course systematically analyzes different measures and proposes alternative strategies for managing all aspects of financial risks in the shipping industry.	3	B	Department of Shipping and Transportation Management	SDG1,SDG10,SDG4
2023	1121	Bachelor	3	B3203A38	A	Frozen Foods Technology	This course provides a series of introductions to the principles and processing techniques of freezing, with the aim of laying the foundation for students in food preservation. Teach students the principles of low-temperature preservation of food, introduce various food freezing and processing methods, and explore quality changes during freezing processing, so that students can understand the current operation of the food freezing industry, and then have the knowledge of production, quality control, and research and development of low-temperature products. ability.	2	B	Department of Food Science	SDG4
2023	1121	Bachelor	3	B3203A3D	A	Food Industry Extracurricular Practice	In addition to the knowledge acquired in the classroom, students can also have a real understanding of the dynamics outside the school.	1	B	Department of Food Science	SDG4
2023	1121	Bachelor	4	B39043CI	A	Introduction of tea, coffee and alcohol processing and industrial applications	Upon completion of this course, students will be familiar with the processing of coffee, tea and alcohol, and possess the basic knowledge of their industrial applications.	2	B	Department of Food Science	SDG4
2023	1112	Doctorate	1	D5301L44	A	Optimal Control	This course aims to introduce the basics and related applications of optimal control theory. Optimal control is a very important and practical control method. We will discuss the optimal control problem of linear systems, introduce the relevant results of nonlinear systems, and explore the application of optimal control to various problems.	3	B	Department of Electrical Engineering	SDG4
2023	1112	Bachelor	1	B5311P48	B	Electric Circuits	This course mainly focuses on circuit theorem and its analysis method, and the ability of circuit analysis and design can be established.	3	A	Department of Electrical Engineering	SDG9
2023	1112	Master	1	M670171B	A	System Identification	The objective of this course is to determine the mathematical model of the dynamical system based on the experimental data within a specified class of systems.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1112	Master	1	M37010JP	A	Independent Study: Why do Fish Population Vary?	The purposes of this class are to discuss the nature and types of recruitment variability of fish stocks, understand possible mechanisms controlling or influencing such variability. Both biological and non-biological factors, as well as fishing and environmental and/or climatic events affecting life stage abundance of a fish stock which eventually determine the strength of the recruitment will be addressed. Examples from historical records of various fish stocks and hypotheses proposed for explanation of fluctuations of these stocks will be examined in more detail. It is expected that more thorough considerations for the management of fish stocks will be learned for attended students after these discussions.	3	B	Institute of Marine Affairs and Resource Management	SDG12,SDG14
2023	1112	Bachelor	1	B9D01969	6	English	The goal of Freshman English is to familiarize you with the fundamental skills needed to help you become an efficient learner in reading, vocabulary, writing, speaking and listening. In addition to the course handouts, valuable resources (both on- and off-line) will be introduced and various learning tasks have been prepared to encourage you to build up an active learning attitude for pursuing ongoing advancement of your English proficiency in an independent and effective manner	2	A	Institute of Applied English	SDG1,SDG2,SDG4,SDG3,SDG6,SDG7,SDG9,SDG10,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG8,SDG5
2023	1112	Bachelor	1	B9D01969	W	English	This course focuses on language abilities that are essential in real life. You will develop effective strategies to understand others well with the various listening and reading materials in class. You will also use the speaking skills to talk in groups, to share with the class, and to present. Your learning will be based on, but not limited to, the required textbook. With the lecture and active participation, you will learn the most relevant vocabulary, grammar concepts and necessary skills for everyday interaction.	2	A	Institute of Applied English	SDG10,SDG11,SDG15,SDG14
2023	1121	Bachelor	2	B8102V75	A	Discrete Mathematics	This is an introductory course in Discrete Mathematics oriented toward Engineering and Computer Science. The course divides roughly into the following parts: 1.Fundamental Concepts of Mathematics: Logic and Proofs 2.Basic Structures: Sets, Functions, Sequences, and Sums 3.Fundamentals: Algorithms, Integers, and Matrices 4.Induction and Recursion 5.Relations 6.Discrete Probability Theory 7.Trees (optional) 8.Graphs (optional) We will concentrate on the first five parts.	3	B	Department of Marine Environmental Informatics	SDG3,SDG4,SDG8,SDG17,SDG5

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2023	1121	Bachelor	1	E4Q01083	A	Engineering Graphics	This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level. (1). Let students know the basic Engineering Graphics (2). Let students know the application of Engineering Graphics.	1	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	1	E4Q01AMM	B	Applied materials and mechanics	Learn the basic bonding and crystal structure of materials, understand the phase changes in the metal melting and solidification process, and then become familiar with the metal iron-carbon phase diagram and the mechanical properties of various alloys. Combining engineering mechanics calculations enables students to understand the importance of materials and mechanics engineering applications and the basis for advanced learning in the fields of materials and emerging energy in the future. This course complies with the mandatory requirements of Table A-III/1 of the STCW Convention on the knowledge, understanding and proficiency of operational level competencies in marine engineering	2	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	2	B01122H1	A	Administrative Law: General Part	Lectures on the basic concepts, principles and structures of administrative law. Students will be guided to understand the theories and current judicial practices.	3	A	Bachelor Degree of Ocean Law and Policy	SDG3,SDG4,SDG5,SDG10,SDG6
2023	1121	Bachelor	2	B01122H2	A	Civil Law: General Part of Obligations	The objective of this course is to help students grasp solid concept of the general principles of Civil Code: Obligations regulations. This class will also focus on various Civil Code: Obligations case studies as well as intra-class discussions on related hypo exercise.	2	A	Bachelor Degree of Ocean Law and Policy	SDG4,SDG16,SDG10
2023	1121	Bachelor	3	B52033OL	A	Engineering Internship	Let students learn the specific experience of civil engineering practice.	2	B	Department of Harbor and River Engineering	SDG7,SDG9,SDG11
2023	1121	Bachelor	3	B52033P1	A	Special Topic Research-Analysis and Research of Flow Visualization Techniques	To achieve the purpose of discussing the characteristics of waveform splitting and flow field, the generation and diffusion of eddy currents, the variations of eddy current position, etc., and to further improve the variations of the flow field when the waves pass through the submerged obstacles. To further understanding the qualitative and quantitative changes and relationships between the movement characteristics of sand and gravel around the seabed of the submerged structure after the wave propagated.	2	B	Department of Harbor and River Engineering	SDG7,SDG9,SDG14
2023	1121	Bachelor	3	B5203255	A	Hydraulic Model	By the introduction of hydraulic model cross-section experiments, students are encouraged to strengthen their basic concepts required for the development of coastal engineering and marine engineering in various areas of Taiwan, to enable students to understand the importance of adopting a hydraulic model test before engineering constructions were carried out. Model tests are conducted in advance to evaluate the purpose and necessity of various types of harbor structures.	2	B	Department of Harbor and River Engineering	SDG7,SDG11,SDG9
2023	1121	Bachelor	3	B52033XD	A	Special Topic Research-Introduction to coastal pollution	Provide undergraduate students with a first-hand understanding of the basic characteristics, popular science knowledge and related academic theories of marine pollutants	2	B	Department of Harbor and River Engineering	SDG7,SDG14,SDG15
2023	1121	Bachelor	1	B0111T54	A	Constitutional Law	The course is divided into three parts: principles, fundamental rights and state organization.	2	A	Bachelor Degree of Ocean Law and Policy	SDG1,SDG2,SDG4,SDG6,SDG8,SDG11,SDG10,SDG7,SDG5,SDG3
2023	1121	Bachelor	2	B52024EF	A	Fundamental of Remote Sensing	This course aims to provide fundamental theory and concept of remote sensing to undergraduate students and some applications of remote sensing in environmental monitoring will be introduced.	2	B	Department of Harbor and River Engineering	SDG4,SDG15,SDG10,SDG13,SDG11
2023	1121	Master	1	M0401H70	A	International Law of the Sea	This course hopes to teach the theory, practice and application of various topics in the international law of the sea through teacher lectures, reports and discussions. In addition to an introduction to general issues of international law of the sea, the course will also provide a more in-depth analysis of sub-topics closely related to my country and my country's practice. In addition to lectures and class discussions, class reports will also be introduced to allow students to apply what they have learned and practice their skills in collecting data and conveying information.	2	A	Master Degree Program in Ocean Policy	SDG7,SDG13,SDG14
2023	1121	Master	1	M04013Y8	A	Case Studies in International Negotiations	International disputes are often resolved through negotiations to seek agreements that can provide security and promote peace and prosperity for all parties involved. However, in reality, international issues are extremely complex, and negotiating styles differ among countries. Factors such as core interests and considerations of various issues can vary greatly, often leading to stalemates or even endangering international peace. This course aims to guide learners in understanding the true face of international negotiations, by exploring and analyzing various cases of peaceful dispute resolution in the current international technology competition, also known as the "technology war," and making good use of the power of law.	2	A	Master Degree Program in Ocean Policy	SDG2,SDG17,SDG16,SDG14,SDG12,SDG11,SDG10,SDG3
2023	1121	Bachelor	1	B7311N24	C	Accounting	Accounting is a subject closely related to daily life, and it is also a skill that a corporate staff should possess. Its purpose is to faithfully provide accurate and useful financial information to decision-makers to help them make economic decisions. This course enables students to acquire these skills so that they can use what they have learned in various management levels after entering the workplace.	3	A	Department of Shipping and Transportation Management	SDG8
2023	1121	Bachelor	3	B7303FR1	A	Reading of English Shipping Articles (I)	Students in this class should be able to search and reveiew shipping English literatures and journal articles independently. Group discussion is encouraged during the class to generate innovative and creative ideas for the traditional shipping industry. English is the most frequently used language in the shipping industry, thus the aim of this course is to let students familiar with all the shipping terms and current shipping practices at the same time.	2	B	Department of Shipping and Transportation Management	SDG4,SDG17,SDG8,SDG9,SDG10,SDG14,SDG13,SDG7
2023	1121	Bachelor	2	B7302I01	B	Practices of International Trade	This course mainly explains the international trade operation process from a practical perspective, leading students to enter the field of international trade. The teaching content includes: introduction to international trade, explanation and application of trade conditions and the latest version of the International Trade Regulations (Incoterms 2020), import cost analysis, inquiry quotation and commitment practices, explanation of letter of credit documents, and International Trade English exercises, etc. It is hoped that students will have the practical ability to operate international trade after completing the course.	3	A	Department of Shipping and Transportation Management	SDG1,SDG8,SDG12
2023	1121	Bachelor	3	B3203A25	A	Food Chemistry (I)	The content covers the importance of food chemistry to food processing, quality, safety and new product development. It introduces and discusses food water and water activity, sugars, lipids, protein and enzymes and their chemical properties. Chemical and biochemical changes in raw materials, processing and storage and their impact on the functional properties of food, and stimulate students' ability to infer from what is known.	3	A	Department of Food Science	SDG4
2023	1112	Doctorate	1	D090143Q	A	Protozoe(Ⅱ)	This course provides comprehensive concepts and knowledge of protistology, followed by Protistology (1), and discusses its relationship with environments. Scientific articles are going to be read and discussed for the training of independent thinking and presentation.	3	B	Doctoral Degree Program in Ocean Resource and Environmental Changes	SDG14
2023	1121	Bachelor	3	B7313661	A	Operation Research	This course is mainly aimed at teaching the theory and application of student homework research, so as to train students to use homework research theory to solve problems related to the fields of life management, financial management and decision analysis.	2	A	Department of Shipping and Transportation Management	SDG4

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2023	1121	Bachelor	3	B73030ZL	A	International Container Transportation Practice	1. Introduction 2. The Container Shipping Market under Corona Virus Influence 3. The Container Shipping Carriers 4. The Shipping Industry and Ship Routing 5. The Container Ships and Containers 6. The Container Shipping Industry and Service Lines 7. The Ocean Bill of Lading 8. The Ocean Freight and Charges 9. The Administration of Shipping 10. The Risk of Cargo Transportation, Insurance and Cargo Claims 11. The Transportation of Special Cargo 12. The Future Prospect of Container Transportation	3	B	Department of Shipping and Transportation Management	SDG1,SDG11,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG10,SDG3,SDG7,SDG8,SDG9,SDG6,SDG2
2023	1121	Master	2	M73023AY	A	Port planning and port logistics administration	1.To master port planning elements and knowledge under macro-perspectives 2.To exploit port operations and logistics professional abilities under micro-perspectives	3	B	Department of Shipping and Transportation Management	SDG11,SDG14,SDG13
2023	1112	Bachelor	1	B530108U	A	Engineering Mathematics (Ⅰ)	To provide students with solid background on applied engineering mathematics.	3	A	Department of Electrical Engineering	SDG2,SDG4,SDG9
2023	1112	Master	1	M37010XJ	A	Seminar (Ⅱ)	This class is designed to help students understand some ongoing and important issues regarding marine resource management and marine affairs around the world both from practical and theoretical perspectives. Through the reading and presentation of selected scientific papers, and Q & A among teachers and students, as well as some invited speeches, the research methods, analytical skills required for a graduate study, and experiences in problem-solving and policy-making, are expected to be learned. By using these interactive learning processes, techniques required for conducting research and writing the thesis, as well as the oral presentation may also be developed.	2	A	Institute of Marine Affairs and Resource Management	SDG14
2023	1112	Bachelor	2	B9D0232P	B	Maritime English Conversation	Students will learn daily English used in maritime context through listening tasks and conversations.All of the classroom tasks are carried out by using a maritime literacy approach. Students will work out the tasks through being immersed themselves in the materials.	2	B	Institute of Applied English	SDG17
2023	1112	Bachelor	1	B7201NNY	A	Service-Learning Program-Campus Service (Ⅱ)	Cultivate students' virtues of responsibility, self-discipline, diligence, service and mutual assistance and cooperation.	0	T	Department of Mechanical and Mechatronic Engineering	SDG3,SDG11
2023	1121	Bachelor	1	B01013YV	A	The Introduction to Ocean Law and Policy	The purpose of this course is to enable students to have an understanding of the possibilities after graduation from this bachelor's degree through visits to public and private institutions related to maritime law and politics. On the one hand, it will help students with clear goals to formulate courses and study plans. On the other hand, it also helps students who have no goals to explore the possibilities of future development, cultivate basic understanding of the fields related to the bachelor's degree, and gradually form a plan for employment after graduation. In the first two weeks, the course and the overview of each partner institution will be explained; in the last two weeks, supplementary teaching will be arranged as appropriate; in the middle term, visits to each partner institution will be arranged based on the situation.	2	B	Bachelor Degree of Ocean Law and Policy	SDG10,SDG16
2023	1121	Bachelor	2	B01022H0	A	Japanese for Law Students (1)	This course will teach basic Japanese grammar and sentence patterns from 50 syllables, that is, from scratch, in order to build students' basic reading and comprehension skills in legal Japanese.	2	B	Bachelor Degree of Ocean Law and Policy	SDG17
2023	1121	Bachelor	3	B01032YY	A	Civil Law: Family Law	Introduction to Civil Law Relatives Edition Through system introduction, enter into step-by-step analysis Let students understand the relevant provisions and legislative purposes of the Civil Law Relatives Code To understand the composition of relatives and the relationship between mutual rights and obligations	2	B	Bachelor Degree of Ocean Law and Policy	SDG4,SDG5
2023	1121	Bachelor	1	E4Q01AMM	A	Applied materials and mechanics	Learn the basic bonding and crystal structure of materials, understand the phase changes in the metal melting and solidification process, and then become familiar with the metal iron-carbon phase diagram and the mechanical properties of various alloys. Combining engineering mechanics calculations enables students to understand the importance of materials and mechanics engineering applications and the basis for advanced learning in the fields of materials and emerging energy in the future. This course complies with the mandatory requirements of Table A-III/1 of the STCW Convention on the knowledge, understanding and proficiency of operational level competencies in marine engineering.	2	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	3	B52034GK	A	Special Topic Research-Remote sensing application in disaster management	In general, the spatial coverage of various kind of disasters is relatively large and some disaster such as landslide occur in remote area where people very difficult to reach. Remote sensing is a state-of-the-art tool to monitor the land surface changes from space and it provides repeat observations to monitor the change of the disaster. With a proper environmental issue, this course is aiming to lead student to realise an environmental issue or a disaster issue and monitor it with cloud-based remote sensing tools.	2	B	Department of Harbor and River Engineering	SDG6,SDG11,SDG13,SDG15
2023	1121	Bachelor	1	B5301M30	B	Introduction to Programming Lab.	1. Establish basic concepts of logical design 2. Learn C language writing skills 3. Implement common application development 4. Cultivate the habit of autonomous learning	1	A	Department of Electrical Engineering	SDG1,SDG10,SDG5
2023	1121	Bachelor	1	B5301992	A	Introduction to Computer Science	Let students be familiar with the fundamental contents of computer science.	3	B	Department of Electrical Engineering	SDG3,SDG11,SDG14,SDG17,SDG16,SDG12,SDG9,SDG4,SDG8
2023	1121	Doctorate	1	D89010Q1	A	Special Topics and Applications of Materials Analysis	To enable students to understand the principles and methods of material composition, microstructure and physical property analysis, as well as their application in actual material development and academic research cases.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	2	B5312P17	A	Electronics	To train students to recognize and understand the related principles of electronic technology and their applications. To enable students to understand the basic principles of electronics and electronic circuits.	3	A	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B5302P50	B	Electromagnetics	To acquaint the students with the basic principles of electromagnetic theories which relate with the natural phenomena.	3	A	Department of Electrical Engineering	SDG4,SDG8,SDG9
2023	1112	Bachelor	2	B520287R	A	Introduction to Physical Oceanography	This course aims to introduce wind, waves, tides and currents in the physical field of oceanography, and to cultivate broader ocean-related knowledge for students with a background in river and marine engineering. The course first introduces the history of the development of oceanography, so as to learn from the scientific development process the motivations and influences of research, and then introduces four marine physical phenomena closely related to coastal engineering. It also uses daily homework and grouping methods to enhance students' knowledge breadth and teamwork learning.	2	B	Department of Harbor and River Engineering	SDG14

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2023	1112	Master	1	M5201U4K	A	Advanced Numerical Methods in Geotechnical Engineering	The teaching goal of this course is to teach students how to use advanced numerical analysis methods to analyze problems related to geotechnical engineering. The course content starts with numerical analysis methods in geotechnical engineering, introducing continuum and discontinuous numerical analysis methods, and then discusses the finite difference method theory and finite element method theory and engineering application case illustrations, and then explains the continuum and discontinuous numerical analysis methods. The goal of the application of geotechnical problems is to equip students with the ability to use numerical analysis methods for analysis and design, and to enhance students' competitiveness in related research and future employment.	3	B	Department of Harbor and River Engineering	SDG11
2023	1121	Master	1	M7301J68	B	Organization and Management	This course is to help students obtain in-depth understandings of organizations through good comprehension of central theoretical perspectives and paradigms. This course will focus on determinants of an organization''s success, focusing particularly on structure and design issues, as well as external environmental factors that impact organizational structure and functioning.	3	A	Department of Shipping and Transportation Management	SDG1,SDG8,SDG10,SDG12,SDG5
2023	1112	Bachelor	1	B95013U3	A	Inquiry and Practice curriculum design	1. The basic concepts and curriculum objectives of cultivating scientific literacy. The learning focus in this field covers three major categories: core concepts of science, inquiry ability, and scientific attitude and nature. 2. Integrate the three in an appropriate way according to students' physical and mental development characteristics, social and life needs, etc. The two dimensions of "Inquiry Ability" and "Scientific Attitude and Nature" represent the "learning performance" of students at each stage, while the "Core Concepts of Science" present the specific scientific "learning content" of each learning stage. 3. In courses in this field, "learning performance" and "learning content" are closely related and mutually reinforcing each other. 4. Natural science courses should guide students to acquire scientific inquiry abilities and develop scientific attitudes through multiple methods such as inquiry, reading and practice, so as to gain an understanding of scientific knowledge content.	2	A	Teacher Education Center	SDG4
2023	1121	Bachelor	2	B7302862	B	Financial Market	This is an introductory course in the field of finance. Introduce the functions, tools and related financial institutions of financial markets. The content includes the historical development and future prospects of financial markets, the theoretical framework and practical issues of monetary institutions and non-monetary institutions, bill and bond markets, stock markets, foreign exchange markets, futures and options markets, fund markets, and international financial markets. .	2	B	Department of Shipping and Transportation Management	SDG1,SDG9,SDG11,SDG16,SDG17,SDG12,SDG10,SDG8,SDG2,SDG3,SDG4
2023	1121	Master	1	M7301F24	A	General Introduction to Shipping	1.Analyzing the characteristics of liner and tramp shipping. 2.Introducing to the practice and theory of liner and tramp shipping. 3.Case studies	3	A	Department of Shipping and Transportation Management	SDG9
2023	1112	Bachelor	3	E4103M01	A	Warehousing and Distribution Management	To make students realize the definition, basic concepts and operation of warehousing and distribution management.	2	A	Department of Shipping and Transportation Management	SDG8,SDG12
2023	1112	Doctorate	1	D53011HA	A	Motor Drive Control	This course will adopt flipped teaching, and students will be required to report on relevant research and research trends related to motor drive control every week, especially focusing on predictive current control. In this way, students can learn about relevant research on motor drive control to help students find their own research topics and directions for their master's thesis.	3	B	Department of Electrical Engineering	SDG9
2023	1112	Bachelor	2	B9D0232P	A	Maritime English Conversation	Students will learn daily English used in maritime context through conversations.All of the classroom tasks are carried out by using a maritime literacy approach. Students will work out the tasks through being immersed themselves in the materials.	2	B	Institute of Applied English	SDG17
2023	1112	Bachelor	2	B9D023L4	A	Listening and Reading (Elementary)	Course Description: There are 4 main principles on which the course is based: rich input, reading and listening strategies, language awareness and self-expression. The program provides a variety of practice and tasks that ensure all learners build conversational skills alongside listening skills. Course Objectives: 1.To develop critical thinking and discussion skills. 2.To acquire deeper understanding of vocabulary and grammar. 3.To use successful reading and listening strategies. 4.To build conversation skills alongside listening skills.	2	B	Institute of Applied English	SDG1,SDG2,SDG4,SDG6,SDG8,SDG10,SDG12,SDG17,SDG15,SDG14,SDG13,SDG11,SDG9,SDG7,SDG5,SDG3
2023	1112	Bachelor	2	B9D023L5	A	English for Meetings (Intermediate)	Meeting English is a must-have ability for all mid-level and senior-level managers, and it is an important learning course for cultivating the next generation of talents. This course uses real-life videos to enhance students' English learning; at the same time, TOEIC listening question banks will be played and TOEIC reading question banks will be distributed, allowing students to apply the conference English they have learned in TOEIC) preparation for the exam. All students who take this course will receive several imported question banks and audio files for the new TOEIC question types in March 2018 for free.	2	B	Institute of Applied English	SDG4
2023	1112	Bachelor	4	B31044PR	A	Revitalization of fishing village and sustainability management	The goal of this course is to teach how to practice fishing village regeneration and industrial sustainable management under the sustainable utilization of marine resources, as well as the methods of practical participation. It also cooperates with the courses of marine and fishing village sustainable management, and improves students' practical operation through on-site operations. Practical skills such as inventory of local sustainable management resources (environment, economy, local culture, etc.), field surveys, interviews, etc. will enhance students' ability to essentially understand, think about, and participate in the sustainable management of fishing villages in the future.	3	B	Department of Environmental Biology and Fisheries Science	SDG1,SDG4,SDG9,SDG3,SDG11,SDG14,SDG12
2023	1112	Doctorate	1	D5301K59	A	Software Engineering	Software Engineering mainly introduces the basic concept and technologies of software engineering, it is the key to the development of software, and it directly relates to the quality of products. This course is to teach the main approaches and procedures using the combination of case and theory and to train the ability to implement using the final project.	3	B	Department of Electrical Engineering	SDG4
2023	1121	Bachelor	1	E4Q01083	B	Engineering Graphics	This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level. (1). Let students know the basic Engineering Graphics (2). Let students know the application of Engineering Graphics.	1	A	Department of Marine Engineering	SDG4

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2023	1121	Bachelor	2	E4Q021KX	A	Leadership and Engineroom Resource Management	Improve the technical level of officers, so that engineers assigned to hold engineer positions or above on ships can meet the requirements of the STCW CODE A-III/1: "Maintain safety Minimum competency standards for "Engine Watch", which requires knowledge of leadership and engine room resource management, such as resource allocation, allocation and prioritization, communications, decision-making and leadership, crisis management, leadership and workload Management and other detailed knowledge and abilities to maintain the safety of our merchant ships. This course uses a turbine simulator to teach students to understand the engine room environment and systems, basic engine room operations, and understand what resources in the engine room can be used and managed. The course will teach students how to evaluate operating efficiency and system health. Since human resources are also part of the cabin's resources, this course also includes leadership and team management to make the best use of the cabin's human resources. Special regulations: *Since this course can issue training certificates and the course hours must meet the regulations, unexcused absences are not allowed in this course, otherwise the result will be assessed as failing.	3	B	Department of Marine Engineering	SDG1,SDG3,SDG5,SDG8,SDG10,SDG12,SDG17,SDG16,SDG14,SDG13,SDG11,SDG9,SDG6,SDG4
2023	1121	Bachelor	3	E4G03DMT	A	Distribution management	This course is oriented to combine theoretical development and practical application to enrich students' knowledge in the field of logistics and distribution professional research. Through lectures and discussions, students will have a considerable understanding of the theory of distribution management.	2	A	Department of Shipping and Transportation Management	SDG9
2023	1121	Bachelor	2	E4A02K56	A	Cargo Work	This course follows the International Maritime Organization(IMO) Model Course 7.03-2.1.1 (The Effect of Cargo, Including Heavy Lifts on the Sea-worthiness and Stability of the Ship) and 2.1.2 (Safe Handling, Stowage and Securing of Cargoes), and the specification of physics, taking into account the transfer of the relevant necessary knowledge or skills, so as to achieve the following teaching objectives: 1. Enable students to understand the principles of loading and unloading and storage of various types of cargoes. 2. Enable students to understand the cargo handling characteristics of various professional ships. 3. Enable students to understand the impact of cargo handling and storage on ship safety.	2	A	Department of Merchant Marine	SDG4,SDG13,SDG17,SDG14,SDG8
2023	1121	Bachelor	1	E4A011KG	B	Security Duty	This course follows the norms of the IMO Model Course 3.26, STCW Convention Rule VI/6, Code A-VI/6 and Table A-VI/6-2, taking into account the transfer of relevant necessary knowledge or skills, so as to achieve the following teaching objectives: 1.knowledge of current security threats and patterns; 2.recognition and detection of weapons, dangerous substances and devices; 3.recognition, on a non-discriminatory basis, of characteristics and behavior alpatterns of persons who are likely to threaten security; 4.techniques used to circumvent security measures; 5.crowd management and control techniques; 6.security related communications; 7.knowledge of emergency procedures and contingency plans; 8.operation of security equipment and systems; 9.testing, calibration and at-sea maintenance of security equipment and systems; 10.inspection, control, and monitoring techniques; and 11.methods of physical searches of persons, personal effects, baggage, cargo, and ship stores.	1	A	Department of Merchant Marine	SDG4,SDG13,SDG16,SDG17,SDG14,SDG8
2023	1121	Bachelor	2	B5322P48	B	Electric Circuits	This course mainly teaches basic circuit theory and analysis methods, which can be applied to electronics, communications, control, computers and other related courses, and builds appropriate circuit analysis and design capabilities.	3	A	Department of Electrical Engineering	SDG1,SDG3,SDG2,SDG4,SDG6,SDG9,SDG11,SDG16,SDG17,SDG12,SDG10,SDG8,SDG5
2023	1121	Doctorate	1	D53014J7	A	Theory of Integreted Circuits Design & Fabrication	Integrated Circuits (ICs) concern the correctness, reliability, productivity, and optimization of system construction. It is an interdisciplinary field, where electrical engineering and computer sciences intersect. In IC, theoretical computer science (including algorithms, complexity, automata, logic, programming languages, etc.) finds rich and practical applications.	3	B	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Doctorate	1	D53014O8	A	Introduction to Reinforcement Learning Control and Its Applications	This course mainly introduces the basics and related applications of reinforcement learning control technology. The course mainly introduces the core theory of reinforcement learning control and deep reinforcement learning methods. The goal is to enable students to understand the spirit of reinforcement learning and deep reinforcement learning control, and learn how to apply this technology to different systems, such as robots. We also hope that students can further develop innovative applications in the future.	3	B	Department of Electrical Engineering	SDG4
2023	1121	Bachelor	3	B53030YF	A	Special Topic on Wireless Transmission Techniques	Optional topics for this semester: (Choose 1 from 2) Topic 1: Microwave/Millimeter Wave Passive Component Design Topic 2: AI radar image target recognition (using AI artificial intelligence: YOLO or CNN)	2	B	Department of Electrical Engineering	SDG8,SDG9
2023	1121	Master	1	M37010XI	A	Seminar (I)	This class was designed for the first-year students of this Institute. The students will learn how to search scientific papers, how to maintain a database, the structure of a scientific paper, and how to present a scientific paper.	1	A	Institute of Marine Affairs and Resource Management	SDG14
2023	1121	Master	1	M3701B6I	A	Climate Change and Fisheries	This course is designed to introduce the influence of climate change on fisheries, particularly in cephalopod. Students will learn the knowledge of oceanography, ecology of cephalopod, and introductory to the population ecology, recruitment dynamics and fisheries management. The current research on such topics will be learned by published papers.	3	B	Institute of Marine Affairs and Resource Management	SDG12,SDG14,SDG13
2023	1121	Bachelor	2	B7302H54	A	Commercial Law	This course is positioned as a basic course in commercial law, aiming to allow students to understand the basic contents and norms of company law and instrument law. Commercial law usually includes company law, maritime law, bill law, insurance law, etc. In order to comply with the teaching arrangements of the department, this course focuses on company law. In terms of course planning, it is planned to assist the course explanation with students' independent learning activities. It is expected that through independent learning activities: 1. Establishing basic concepts of commercial law; 2. Emphasizing problem-solving oriented learning actions; 3. Application of commercial law knowledge, goal.	2	B	Department of Shipping and Transportation Management	SDG4,SDG16
2023	1112	Bachelor	1	B53214EE	A	General Physics	An introduction to freshman physics, specifically in the topics of oscillation, mechanical and acoustic waves, electrostatics and direct current circuits.	2	A	Department of Electrical Engineering	SDG4
2023	1121	Master	1	M7301F24	B	General Introduction to Shipping	The aim of the course is to provide students with an advanced understanding and investigating the important issues on running liner and tramp shipping services, the current situation of shipping market, and the operational strategies shipping operators can employ.	3	A	Department of Shipping and Transportation Management	SDG14

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2023	1121	Bachelor	2	B6F02S47	A	Thermodynamics	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2. Thermodynamics is an engineering cours based on applied physics and particularly interested in relationships between energy, work and heat. Thermodynamic concepts are essential for analyzing almost all Mechanical Engineering problems, hence, the objective of this course is to educate engineering students so they are able to effectively utilize thermodynamics for practical problem solving.	3	A	Department of Marine Engineering	SDG1,SDG5,SDG4,SDG6,SDG7,SDG10,SDG14
2023	1112	Bachelor	1	E4121N24	C	Accounting	Form from the business activities, organizational patterns and management organizations that accounting position in the business. The basis of the accounting process and accounting transaction processing and the importance of standardizing the format of accounting and e-business and accounting needs of the times in science and technology and applications, to assist students in developing professional knowledge of accounting and information technology capabilities, establish a solid professional accounting	3	A	Department of Shipping and Transportation Management	SDG8,SDG9
2023	1112	Bachelor	3	B5303N95	A	Power Systems	1. Study Power system principle 2. Power system analysis 3. Introduction of Taiwan power system	3	B	Department of Electrical Engineering	SDG9,SDG11
2023	1112	Bachelor	1	B9D01969	9	English	The goal of Freshman English is to familiarize you with the fundamental skills needed to help you become an efficient learner in reading, vocabulary, writing, speaking and listening. In addition to the course handouts, valuable resources (both on- and off-line) will be introduced and various learning tasks have been prepared to encourage you to build up an active learning attitude for pursuing ongoing advancement of your English proficiency in an independent and effective manner	2	A	Institute of Applied English	SDG1,SDG2,SDG5,SDG7,SDG9,SDG11,SDG16,SDG15,SDG14,SDG13,SDG12,SDG10,SDG8,SDG6,SDG4,SDG3
2023	1112	Bachelor	4	B38044J0	A	Research Training (IV)	The purpose of the special research is to allow students to understand the research topics of each professor's laboratory, learn the experimental techniques and research methods that each professor specializes in, and observe and learn how the seniors in the laboratory conduct research, so as to cultivate the research ability of experimental operations as a The basis for entry into research field work.	1	B	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG9
2023	1112	Bachelor	3	B3803B7F	A	Marine Biodiversity	This course aims to understand the importance of marine biodiversity.	2	A	Bachelor Degree Program in Marine Biotechnology	SDG4,SDG14
2023	1112	Bachelor	3	B720315G	D	Case Study	Training juniors to search papers, to study individually, and to write appropriate technical report.	2	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG11,SDG9
2023	1112	Bachelor	1	B380145R	A	Biology (Ⅱ)	The purpose of the course in biology is aimed to stimulate the interest of students in biological sciences and enlighten the curiosity of natural phenomena.	3	A	Bachelor Degree Program in Marine Biotechnology	SDG11,SDG15,SDG14
2023	1112	Bachelor	2	B5302N57	A	Introduction to Data Structure	This course aims at introducing various data structures, to develop students'' ability of processing data using data structures. In addition, the course introduces the operation and application of data structures combined with algorithms.	3	B	Department of Electrical Engineering	SDG4
2023	1121	Bachelor	1	E4Q01FT1	B	Thermal fluids dynamics I	Thermodynamics is an engineering cours based on applied physics and particularly interested in relationships between energy, work and heat. Thermodynamic concepts are essential for analyzing almost all Mechanical Engineering problems, hence, the objective of this course is to educate engineering students so they are able to effectively utilize thermodynamics for practical problem solving.	2	A	Department of Marine Engineering	SDG1,SDG10,SDG9,SDG14,SDG7,SDG4
2023	1121	Doctorate	1	D81012XF	A	Ocean Currents in Marginal Seas	Let graduate students have a preliminary concept of ocean currents in marginal seas, understand the current research progress on ocean currents in marginal seas, and improve their understanding ability in relevant academic seminars.	3	B	Department of Marine Environmental Informatics	SDG13,SDG14
2023	1121	Master	1	T4G01DME	A	Distribution Management & Industrial Economics	This course includes two major subjects. The first is distribution management including structure of distribution channels, channel members'' function and task, academic research themes on distribution management, and the future development of distribution management. The second is industrial economics, which discussing firms theory, industry and market, market structure, firms'' behaviour and strategy, government regulation, and shipping industry and merket structure.	3	A	Department of Shipping and Transportation Management	SDG8
2023	1112	Master	1	M50014RF	A	Offshore Structure Design and Analysis	This course is recommended for students of senior undergraduates and graduate with major in Naval Architecture and Ocean Engineering. The course is proposed for a semester of 4 months with 36 class hours in total (3 hours each week for twelve weeks). It covers introduction of offshore platform, environmental loads, hydrodynamics, structure dynamic analysis, and classification codes for the design of offshore structures. Finally, OSAP (Offshore Structure Assessment Program) will be introduced for the design check of the offshore structures. OSAP is a software developed by ABS (American Bureau of Shipping) used to assist structure designer to easily check the compliance of the designs with ABS class requirement. The environmental loads include wind, current and wave loads. Since wave and wind loads are random in nature, wind and wave energy spectral are used for the environmental loads analysis. AQWA suites will be used f	3	B	College of Engineering	SDG8
2023	1121	Bachelor	1	B5301M30	A	Introduction to Programming Lab.	1. Establish basic concepts of logical design 2. Learn C language writing skills 3. Implement common application development 4. Cultivate the habit of autonomous learning	1	A	Department of Electrical Engineering	SDG10
2023	1121	Master	1	M8301C6D	A	Integrated Marine Biogeochemistry and Ecosystem Research(I)	This course is jointly taught with teachers from the Department of Environmental Fisheries, Institute of Marine Biology, and Institute of Biotechnology of our school. The goal is to enable students to understand the current research status of integrated research on marine biogeochemistry and ecosystems in China.	2	B	Institute of Marine Environment and Ecology	SDG4,SDG13,SDG14
2023	1121	Master	1	M52014LK	A	Application of Geographic Information System and Analysis of Dis	1. Enable students to understand the application of Geographic Information Systems in disaster prevention. 2. Cultivate students'' practical operational skills in Geographic Information Systems. 3. Facilitate students'' understanding of the process and execution capabilities of watershed runoff analysis. 4. Enhance students'' skills in presenting research results using cartography.	3	B	Department of Harbor and River Engineering	SDG11,SDG13

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2023	1112	Bachelor	3	B52034R5	A	The practice of urban disaster prevention	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3. Communication and expression skills	2	B	Department of Harbor and River Engineering	SDG11
2023	1112	Bachelor	2	B9D023Z3	B	Classical Mythology and Arts (Intermediate)	This course aims to enhance students' listening and reading skills of English by using on-line sources related to classic mythology. In addition to exploring numerous websites, students can also evaluate their learning through on-line quizzes and games.	2	B	Institute of Applied English	SDG4,SDG10,SDG5
2023	1112	Bachelor	2	B520230C	A	Introduction of Water Resources	to introduce the relationship between water resources and humans, and the water management with optimal utilization.	2	B	Department of Harbor and River Engineering	SDG4,SDG15,SDG6
2023	1112	Bachelor	3	B5343P23	Y	Electrical Lab.	This electrical engineering experimental course is produced on the topic of smart grid and explores advanced smart grid-related theories and technologies. The experimental course includes power grid theory study, program writing and simulation, paper writing and other multi-faceted abilities to cultivate the ability to analyze problems and write papers. Please contact Mr. Liu Jianhong for research topics. Teacher' s email: jhliu727@mail.ntou.edu.tw, Teacher' s Research Office: EE1-403	1	A	Department of Electrical Engineering	SDG9
2023	1112	Bachelor	3	B5303N84	A	Introduction to Radar Systems	Understand the basic principles of radar. Understand the architecture of various types of radar systems. Understand the concepts and techniques used in radar system design. Learn the ability to analyze and solve problems. Learn to improve thinking and organizational skills.	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1112	Bachelor	3	B5343P23	Q	Electrical Lab.	Optional topics for this semester: (Choose 1 from 3) Topic 1: Microwave/Millimeter Wave Passive Component Design Topic 2: Target identification in microwave radar images (using AI artificial intelligence: YOLO or CNN) Topic 3: Microwave/Millimeter Wave Antenna Design	1	A	Department of Electrical Engineering	SDG4,SDG9
2023	1112	Bachelor	3	B5343P23	R	Electrical Lab.	Implementing multimedia communication system design using computer simulation	1	A	Department of Electrical Engineering	SDG3,SDG4,SDG8,SDG9,SDG13,SDG15,SDG17,SDG14
2023	1112	Bachelor	1	B9D01969	L	English	This course is to establish students''fundamental skills and help them become efficient learners in reading and listening. They are also encouraged to build up an active learning attitude for pursuing ongoing advancement of English ability in an independent and effective manner.	2	A	Institute of Applied English	SDG4,SDG17,SDG13
2023	1112	Bachelor	2	B9D023L3	B	English Grammar (Elementary)	This course is designed to help learners analyze the parts of speech and functions of words step by step to better understand the principles of sentence structures by using examples in real life.	2	B	Institute of Applied English	SDG4,SDG17
2023	1112	Bachelor	2	B9D023KP	A	English for Business and Management (Intermediate)	This course focuses on preparing Business English language including vocabulary building through listening clips reading graded readers. Teachers prepare a series of graded reading, listening, speaking and writing materials for students to read for fun and learn more business English language skills and practical knowledge.	2	B	Institute of Applied English	SDG4,SDG17,SDG8
2023	1112	Bachelor	2	B7202690	A	Mechanics of Materials	Provide the student with a thorough presentation of the theory of the fundamental principles of mechanics of materials, including the stress-strain relationships under different loading conditions, the stress and strain transformations, and the maximum normal and maximum shear stress at a point. This course is the fundamental of the solid mechanics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	2	B7202690	B	Mechanics of Materials	Provide the student with a thorough presentation of the theory of the fundamental principles of mechanics of materials, including the stress-strain relationships under different loading conditions, the stress and strain transformations, and the maximum normal and maximum shear stress at a point. This course is the fundamental of the solid mechanics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	1	B7221M97	B	Calculus	The objective of this course is to teach students to fully grasp the basic tool of mathematics, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Bachelor	3	B7203S3B	A	Mould Design and Manufacturing	The aim of this course is to introduce mold/die design technology and practice for different manufacturing processes, such as injection molding molds, pressing dies, forging dies, and die casting molds. Among these molds/dies, a deeply discussion on the design principles of die casting molds is addressed, especially for magnesium, aluminum and zinc alloys. This is to allow students having the assoicated engineering knowledge and design practice on mold development as entering their job market.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	3	B5203080	A	Engineering Economics	This course enables students to understand basic economic principles and become familiar with cost-benefit analysis in engineering practice, and introduces the calculation of time interest costs, return on investment, calculation of equipment renewal and depreciation, analysis of risk assessment, and decision-making and management methods of investment plans.	3	B	Department of Harbor and River Engineering	SDG8,SDG11
2023	1121	Bachelor	1	E4A01C06	A	Maritime Administrative Law	This course follows the International Maritime Organization (IMO) Model Course 7.03-3.1 Ensure Compliance with pollution of the Marine Environment & 3.6.1 Basic working Knowledge of the Relevant IMO Conventions concerning SOLAS and MARPOL specifications take into account the transfer of relevant necessary knowledge or skills, and the following course contents are arranged.	2	A	Department of Merchant Marine	SDG3,SDG4,SDG14,SDG17,SDG15,SDG8
2023	1121	Doctorate	1	D53013MB	A	MSP430 Mixed Signal Microcontrollers (I)	Let students learn to use a Texas Instruments development board, including: MSP-EXP430FR2355 (16-bit), MSP-EXP430F5529LP (16-bit), MSP-EXP430FR4133 (16-bit), MSP-EXP432P401R (32-bit) development board wait. The focus of this course is on the ability of students to practice by themselves and solve problems independently.	3	B	Department of Electrical Engineering	SDG7
2023	1121	Doctorate	1	D5301M86	A	Microwave Engineering	Modern applications of Microwave Engineering cover territory microwave communication, satellite communication or even high-speed data transmission. This course applies basic EM theory and microwave network theory to emphasize the characteristics and applications of microwave components so that students can see and understand how to apply the theory to the useful engineering design process.	3	B	Department of Electrical Engineering	SDG9,SDG11,SDG17
2023	1121	Doctorate	1	D8901697	A	Analysis of Metallurgical Failure	The analysis of material failure is a very important issuse to various engineerin structure and component. To prevent unexpected failure, suitable design and material selection for different applications are the main cause of this topic.	3	B	Department of Optoelectronics and Materials Technology	SDG4

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2023	1121	Bachelor	3	B52032H7	A	Special Topic Research-Mathematics, Mechanics and Computation	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3. Ability to communicate and express	2	B	Department of Harbor and River Engineering	SDG4
2023	1121	Bachelor	3	B5303K63	A	Communication Engineering Lab.	Verify the fundamental theory and techniques of analog communication systems via Matlab labs.	1	B	Department of Electrical Engineering	SDG3,SDG4,SDG8,SDG11,SDG14,SDG17,SDG16,SDG12,SDG9
2023	1121	Bachelor	3	B5303K65	A	Communication Engineering	Teach the fundamental theory and techniques of analog communication systems.	3	B	Department of Electrical Engineering	SDG3,SDG9,SDG12,SDG14,SDG11,SDG8
2023	1121	Bachelor	3	B5303386	A	Physics of Semiconductor Devices	Understand the basic physical and electrical properties of semiconductor materials, especially the transmission mechanism of charged carriers such as electrons and holes, and then understand why diodes have a rectifying effect and transistors have an amplification effect as answers to pre-school electronics puzzles and subsequent product development The basis of body circuits and optoelectronic components. Things you need to learn and understand include: 1) The definition of semiconductor: It is definitely not as simple as being better than an insulator because its conductivity is worse than a conductor. 2) There are so-called n-type and p-type semiconductors. Why are there no conductors and insulators? How are n- and p-type semiconductors made? 3) The difference between the current generated by conductors and the current generated by semiconductors illustrates the absence of copper-iron diodes or LEDs. You need to explain the principles and mechanisms in a strong and reasonable manner. 4) This course will review the related circuits and applications of diodes such as rectification, filtering, voltage stabilization, interception, clamping and voltage doubling circuits. 5) The above are just examples	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1121	Master	1	M5A01I27	A	General Acoustics	Introduce the basic principles of acoustics, understand the sound wave equation, sound refraction, reflection, penetration, radiation, human body acoustics, architectural acoustics and environmental acoustics, etc.	3	A	Department of Systems Engineering and Naval Architecture	SDG4,SDG11,SDG14,SDG15,SDG9
2023	1121	Bachelor	2	B9D023KN	A	English Listening and Reading (Intermediate)	This course is aimed at cultivating reading and listening skills for the TOEIC exam, which is the threshold for school graduation. It leads students to explain the TOEIC question bank, test-taking strategies and watch videos on various topics. At the same time, CNN/BBC interactive videos are sometimes played in class. The content of the video is mainly business English and workplace English. In addition to helping students cope with the TOEIC (Toeic) exam, it is also of great benefit to future job hunting and workplace coping. In the class, students who have achieved high TOEIC scores will be invited to teach how to prepare for the TOEIC exam and share their practical experience in taking the exam. All students who take this course will receive several imported question banks and audio files for the new TOEIC question types in March 2018 for free.	2	B	Institute of Applied English	SDG4
2023	1121	Master	1	M52011F2	A	The Coastal Environment Monitoring and Management	The course is focused on the process and mechanism of coastal environmental change, and the techniques relevant to environmental governance and management.	3	B	Department of Harbor and River Engineering	SDG4,SDG11
2023	1121	Master	1	M5201D51	A	Dissipation of Ocean Structure	In virtue of the high-speed development of science and technology of electronic calculator nowadays, numerous numerical models are being enthusiastically established for the estimations of oceanic physical characteristics, which provide several reliable statistics for the design and construction of coastal structures. The sea wall jetty and detached breakwaters are traditionally adopted as absorbing facilities for the elimination of water wave energies. In Taiwan, starting from somewhere around the 80' s, the construction of coastal jetty and detached breakwaters were progressively adopted for coastal protection. Formerly, considerable quantities of armor units were piled outside the protecting embankment to achieve efficiency of absorptions, which in fact accomplished the purpose and ensure inland safety, effectiveness yet destroyed the landscape and ecological environment. In view of the preserving of natural landscape and the enforcement of so-called "amenity-oriented policy" r	3	B	Department of Harbor and River Engineering	SDG7,SDG9,SDG13,SDG11
2023	1121	Master	1	M5201853	A	Nearshore Dynamics	Introduction to nearshore hydrodynamics and associated engineering applications	3	B	Department of Harbor and River Engineering	SDG13,SDG15,SDG14
2023	1112	Master	1	T4Y014QL	A	Container Transport and Logistics Management	This subject is designed to provide professional study of the container transport management of liner shipping with respect to the international maritime business environment. This subject provides students with a full understanding of current developments in the liner shipping, and to enable them to understand the application of quantitative techniques in container transport management decision making. Studying this subject will also help develop students' global outlook, critical and creative thinking, entrepreneurship and leadership.	2	B	Department of Transportation Science	SDG1,SDG4,SDG9,SDG12,SDG16,SDG10,SDG8
2023	1112	Doctorate	1	D53014BE	A	Microwave/mm-wave Passive Component Design	Based on the Instructor' s extensive experience in microwave industry, this course will be mainly focused on practical design methodology of microwave/mm-wave passive components used in modern communication systems. Students will gain full knowledge on component design and manufacturing know-how, reading technical articles will be a must in this course to enhance design capability.	3	B	Department of Electrical Engineering	SDG9,SDG17,SDG11
2023	1121	Bachelor	1	B5601D60	A	Marine Geology	(1) Introduction to the importance of marine geology in ocean engineering and technology. (2) Discover the features of marine geology near Taiwan and the world.	2	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG9
2023	1112	Doctorate	1	D090118Q	A	Independent Studies in Marine Carbon Chemistry	To enable students to understand the latest developments in research on the ocean carbon dioxide system, as well as the potential of ocean carbon sinks and their research methods.	3	B	Doctoral Degree Program in Ocean Resource and Environmental Changes	SDG13,SDG14

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2023	1112	Bachelor	1	E4901ZRI	A	Read selectively of China ancient fables (2)	1. This course focuses on teaching Chinese classical fables and is an in-depth course following "Selected Readings on Humorous Fables Part 1". 2. Choose a total of thirty fables (details in the table below) to study together with your classmates. 3. As a literary genre, fables refer to the use of hypothetical stories or the use of personification of natural objects to illustrate principles, in order to achieve the effect of using the past to persuade the present and to use objects to satirize people, and often have an educational nature of exhortation; Only those who can understand the world and are wise can extract or create "fables" from daily life, which can be used to ridicule, warn, or persuade others in the moment. Traditional Chinese fables, those recorded in pre-Qin Dynasty, are the most original and pioneering. They are not only full of admonishment and educational significance, but sometimes also have a deep sense of humor, which has the effect of making people laugh and wake up immediately. These fables handed down since the pre-Qin Dynasty have gradually evolved into idioms due to their popularity, and they are widely circulated and familiar. However, few people today know their origin and originality. Therefore, through the establishment of this course, the lecturer has the power to act as a The role of a tour guide leads students to read original documents and enter the world where the ancients were sometimes sarcastic, sometimes humorous, and sometimes weird. 4. Strengthen the understanding of basic Chinese sentence patterns, vocabulary, and characters. 5. Learn about traditional culture and cultivate interest and ability to appreciate Chinese literature. 6. Cultivate the ability to use fluent words to express personal ideas and emotions	2	C	Office of the Academic Affairs	SDG1,SDG3,SDG4,SDG10,SDG16,SDG17,SDG12,SDG9,SDG8,SDG5
2023	1112	Master	2	M9D024PI	A	Sea in Western Literature	This course focuses on a variety of great literary works and films with sea as the center or background. In addition to studying themes, characters, settings, narrative techniques and symbols etc., we also discuss the historical, social and cultural backgrounds pertinent to these works. Students are required to express their own opinions/ideas regarding in-class discussions/questions, film oral presentations, and essay questions.	3	B	Institute of Applied English	SDG4,SDG5,SDG14,SDG16
2023	1112	Doctorate	1	D34010X5	A	Special Topics on Marine Zooplankton Behavior, Ecology and Aquaculture(Ⅱ)	Zooplankton not only occupies a very important position in the entire marine ecosystem, but also plays a pivotal role in the study of marine ecology. Among zooplankton, copepods not only have many types and numbers, but are also distributed over a wide area. They can be found wherever there is water, so they are often compared to insects on the sea. Copepods are usually the most dominant group of marine zooplankton, generally accounting for about 70% of the zooplankton biomass. Therefore, countries around the world have spared no effort in researching copepods in marine ecological surveys. The ocean is a resource shared by mankind all over the world. From fishery, tourism, aquaculture, food industry and even processing industry, it is an important resource brought by the ocean to mankind. However, in recent years, serious man-made destruction, environmental pollution, overfishing and other abnormal conditions have occurred. As a result, marine resources are gradually being depleted. Taiwan is a country surrounded by sea and aims to build a maritime nation. How to ensure Taiwan's dominance and sustainable management of surrounding waters is a concern of the entire people. It is hoped that this course will enable students to understand the importance of marine zooplankton behavior, ecology and breeding for the sustainable use of marine resources	3	B	Institute of Marine Biology	SDG13,SDG14
2023	1112	Master	2	M9A022VW	A	Special Topic on Ocean Literacy and Teaching	1. Understand what ocean literacy is 2. Understand the definitions of marine literacy in different countries 3. Understand the development of marine literacy in different countries 4. Compare the differences in the development of marine literacy in different countries 5. Understand marine literacy teaching at different educational stages	2	B	Institute of Education	SDG7,SDG13,SDG14
2023	1121	Bachelor	1	E4D01N80	A	Transportation	1. Let students understand the meaning, administrative organization, characteristics, various modes of transportation and their systematic connotations. 2. Stimulate students to explore transportation management strategies during the learning process, so as to achieve the integration of theory and practice.	2	A	Department of Merchant Marine	SDG1,SDG8
2023	1121	Doctorate	1	D810105L	A	Atmospheric Remote Sensing	Understanding the principle of atmospheric remote sensing	3	B	Department of Marine Environmental Informatics	SDG9,SDG13,SDG17
2023	1121	Doctorate	2	D8102I4H	A	Seminar (Ⅲ)	Culturing the presentation abilities	1	A	Department of Marine Environmental Informatics	SDG4
2023	1121	Master	1	M330148J	B	Crustacean Immunology	The purpose of this course is to provide students with an understanding of the crustacean immune system, its interactions with fish pathogens, and responses to various stimuli and vaccines in the environment. Whether it is seawater or freshwater, the living environment of crustaceans is rich in different pathogens and parasites. Therefore, a complete defense system is the best strategy to resist the invasion of foreign pathogens and parasites. This course will also select appropriate literature for study and discussion in the current field of invertebrate immunology research.	3	B	Department of Aquaculture	SDG14
2023	1121	Doctorate	1	D5301NNS	A	Radar Technology	Understand the principles of modern radar. Understand the basic technologies of various types of radar. Learn about the advanced technologies used in modern radar. Learn the ability to analyze and solve problems. Learn to improve thinking and organizational skills.	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1121	Bachelor	2	E4Q021KX	B	Leadership and Engineroom Resource Management	1. Comply with STCW A-III/1,2 international regulations and obtain training certificate 2. Understand the knowledge of safe operation of ships	3	B	Department of Marine Engineering	SDG4
2023	1121	Master	1	M02013MQ	A	Introduction to Biostatistics	The main purpose of this course is to introduce the concepts of advanced biostatistics and commonly used statistical testing methods. Students are expected to be able to perform complex data analysis and statistical testing.	3	B	Institute of Food Safety and Risk Management	SDG4
2023	1121	Bachelor	2	E4Q021KG	A	Security Duty	According to the regulations of Chapter 6, Section A-VI/6, Table A-VI/6-1 of the STCW Statutes, students will be able to master ship security responsibilities, security threats, security equipment, and security plans, and be able to effectively prevent piracy and armed hijacking, and ensure that the ship Safe operation. At the same time, through the study of this course, a more comprehensive understanding of responsibilities and enhance students'' safety awareness.	1	A	Department of Marine Engineering	SDG4
2023	1121	Master	1	M340145V	A	Seminar on Virology	There are three main purposes. 1. Let students know the fundamental knowledge of viruses. 2. Let students know the concepts of human viral diseases. 3. To investigate the infectious mechanisms of viruses.	2	B	Institute of Marine Biology	SDG3,SDG14,SDG15

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2023	1121	Doctorate	1	D53014BF	A	Practice on Electric Product Research	The objective is to teach students to understand the electric industries in Taiwan, to have ability of problem analysis and resolution and to develop individual career during their life. After the training of design process, system integration, project management and quality control on electric product, they can apply and implement their knowledge and skills of electrical engineering disciplines to the industries field smoothly, as well can demonstrate their performances. Therefore, those products possess commercial value and their career will be enlarged step by step.	3	B	Department of Electrical Engineering	SDG1,SDG4,SDG8,SDG12,SDG9,SDG7
2023	1121	Master	1	M83013OK	A	Case Study in Marine Noctiluca Scintillans	For understanding the formation and distribution of Noctiluca scintillans (blue tear) as well as its roles in the microbial food web, comprehensive concepts and knowledge of the ecology of N. scintillans are going to be provided in this course. Scientific articles are going to be read and discussed for the training of independent thinking and presentation.	3	B	Institute of Marine Environment and Ecology	SDG4,SDG11,SDG14,SDG9
2023	1121	Bachelor	1	E4H01099	A	Work Shop Practice	Let students understand the knowledge, skills and management related to factory practice, and allow students to fully establish their personal independent management and operational abilities in the process of "learning by doing", and have the ability to deal with difficulties when encountering them, so as to cope with the current and Requirements for the future workplace.	2	A	Department of Marine Engineering	SDG1,SDG11,SDG17,SDG12,SDG8,SDG4
2023	1112	Master	1	M5201M52	A	Structural Dynamics	Introduce the principles and methods of structural dynamics; and explore the dynamic behavioral response of structures after being affected by earthquake forces or typhoons and various seismic and wind-resistant design analysis methods. Be familiar with structural design principles and methods and use computer suites to assist in design analysis examples. It is hoped that both theoretical discussion and practical design of structural dynamic analysis will be paid equal attention.	3	B	Department of Harbor and River Engineering	SDG4
2023	1112	Bachelor	2	B5601NNY	A	Service-Learning Program-Campus Service(Ⅱ)	In order to enhance students' willingness and enthusiasm to care for themselves, the living environment and participate in public affairs, we use physical labor services to develop students' sound attitude towards life in caring for the campus and serving others.	0	T	Bachelor Degree Program in Ocean Engineering and Technology	SDG3,SDG6,SDG11
2023	1112	Doctorate	1	D3101S70	A	Processing and Fisheries Application of Satellite	To learn the advanced techniques for remote sensingand its application on commercial fishery and oceanography.	3	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG13,SDG17
2023	1112	Bachelor	1	B7201L66	B	General Physics	This course is a basic course for science and engineering. The main teaching scope this semester is electromagnetism, and if progress permits, it will be extended to optics and modern physics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG7
2023	1112	Master	1	M34014R1	A	Phytoplankton Ecology and Research Methods	Phytoplankton are the major primary producers in the ocean, which serve as the foundation of marine food chain. In this course, the students will have an overall understanding of marine phytoplankton ecology. Also, they will learn the basic concepts of the common methods in phytoplankton research. In addition, the students will be trained with scientific thinking and presentation skills during the course.	3	B	Institute of Marine Biology	SDG13,SDG14
2023	1112	Master	1	M9C010E5	A	Special Topic on Social and Cultural Space of Harbor City	This course will focus on three port cities in South Korea, namely Busan, Incheon, and Mokpo. Taking the port opening history and trade status of these three cities, the rise and fall of the cities and the transformation process, as well as the preservation and utilization of marine cultural resources as the axis, students can have an in-depth understanding of the development of Korean port cities through self-compiled teaching materials and related video materials, and humanistic society.	2	B	Institute of Oceanic Culture	SDG11
2023	1112	Bachelor	3	B7103FL1	B	Voyage Planning	Understand the importance of voyage planning, relevant regulations, evaluation, implementation and precautions	2	B	Department of Merchant Marine	SDG4
2023	1112	Master	2	M9C020JD	A	Topics on The History of North Chinese Americans	Overseas Chinese have always played an important role in the development history of the Republic of China. Although overseas Chinese live abroad, they continue to promote the inheritance of Chinese culture, democracy and freedom and other universal values. Therefore, this course focuses on Chinese immigrants to the United States to understand the historical footprints of Chinese immigrants overseas as well as the development, inheritance and current status of associations.	2	B	Institute of Oceanic Culture	SDG16
2023	1112	Bachelor	1	B6F010X7	B	Elementary First Aid	"Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	1	B	Department of Marine Engineering	SDG3
2023	1112	Bachelor	3	B6D03T83	A	Machine Manufacture	Students taking this course will gain: 1. Improve the concepts of various machinery manufacturing technologies 2. Improve related research and report writing skills 3. Cultivate technical problem-oriented thinking 4. Industrial Engineer Professional Talent Appraisal Examination	3	B	Department of Marine Engineering	SDG4,SDG9
2023	1121	Master	1	M37010EX	A	General Topics on Marine Resources	The aims of this class are to discuss the characteristics of marine resources (especially biological resources), and their complexities in exploitations and management. The biological resources are renewable, and their persistence and productive potential are closely linked to the variability of the environment and human exploitation. The sustainability of marine resources will be threatened if their characteristics could not be understood. However, even if their characteristics are understood, their sustainability still cannot be guaranteed if human exploitation is inadequate. This class will provide broad discussions on the characteristics of marine biological resources, their interactions with the physical environment, and human exploitation. It is expected that concepts on the exploitation and sustainable use of marine renewable resources be established for students attended.	2	A	Institute of Marine Affairs and Resource Management	SDG12,SDG14,SDG13
2023	1121	Master	1	M02014G5	A	Food toxicology	To understand the knowledge of food toxicological principles and evaluation methods, then apply them to toxicological evaluation of safety of chemicals in food	3	B	Institute of Food Safety and Risk Management	SDG3,SDG6,SDG14,SDG15
2023	1121	Master	1	M02013NR	A	Seminar on Food Industry Management	1. Teach the responsibilities of different departments in food industry operations and management 2. Discuss food innovation strategies	3	B	Institute of Food Safety and Risk Management	SDG3,SDG8,SDG9,SDG17
2023	1121	Master	1	M0201I46	A	Seminar (1)	Train graduate students in their ability to collect, organize, and present documents, and strengthen cross-field learning and interaction.	1	A	Institute of Food Safety and Risk Management	SDG4
2023	1121	Master	1	M02013AP	A	Biostatistics & Application with R	The main purpose of this course is to introduce the basic concepts of biostatistics and commonly used statistical testing methods, as well as the use and application of the statistical software R language. Students are expected to be able to perform basic data analysis and statistical testing.	3	B	Institute of Food Safety and Risk Management	SDG4
2023	1121	Bachelor	2	E4Q01OP2	B	Marine of Auxiliary Machinery Overhaul Practice (2)	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards for "Keeping a Safe Watch" as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2.	2	A	Department of Marine Engineering	SDG4
2023	1121	Master	1	M7201P8H	A	Experimental Design and Quality Engineering	This course introduces the key concepts of design of experiments (DOE) and robust parameter design, including Taguchi methods. It also explores the relationship between these concepts and various quality engineering methods. The goal of the course is to cultivate students'' innovative thinking and theoretical foundation for planning experiments when facing various engineering problems.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG12,SDG9

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2023	1121	Master	1	T4Q02AET	A	Application of energy-saving guidance technology	Refrigeration, air conditioning and lighting account for more than half of the total electrical equipment in Taiwan. Therefore, it is necessary to apply energy-saving coaching technology to these serious energy-consuming equipment. This course mainly introduces the overall industrial electricity consumption in Taiwan and combines the concepts of energy-saving coaching technology. , I hope that through the combination of practice and theory, it can be helpful to students taking this course in engineering practice.	3	B	Department of Marine Engineering	SDG1,SDG16,SDG14,SDG5,SDG6,SDG13,SDG7,SDG4
2023	1121	Bachelor	1	B92O8G04	O	Badminton (Beginner)	A.Cognition 1.Understand the basic concepts and principles related to sports and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to sports. 2.Understand the relationship between exercise and healthy life, and cultivate self-interest in exercise, and then develop regular exercise habits. 3.Understand the rules and common sense of badminton B.Skill 1.Develop badminton fitness and have the ability to engage in badminton sports 2.Learn the basic sports methods and skills of badminton sports, and be proficient in badminton skills C.Affection 1.Abide by the rules, teamwork, fair competition 2.Cultivating temperament to appreciate the beauty of sports	0	A	Office of Physical Education	SDG3
2023	1121	Master	1	M02014N2	A	Introduction of application of biopolymer in applied microbiology	This course is designed for students who are interested in the latest research of biopolymers in applied microbiology and application of natural antibacterial agents.	2	B	Institute of Food Safety and Risk Management	SDG3,SDG14,SDG13,SDG12,SDG11,SDG9,SDG7,SDG6,SDG4
2023	1121	Master	1	M720124I	A	Opto-Mechatronics System Integration	Professor, master's and doctoral students on knowledge theory and their integrated application in the fields of optics, electronic control and precision machinery	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	T4W01M23	A	Wireless Networks	This is a fundamental course for Wireless Network courses. With this course, you will learn basic wireless networks concept and principles	3	B	Department of Computer Science and Engineering	SDG4,SDG9,SDG8
2023	1121	Doctorate	1	D7211I38	A	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1112	Master	1	M37014JW	A	Special Topics on International Fisheries Management Law	•Develop legal research and legal writing skills; •Have in-depth discussion on the problems of current fisheries management issues and find out plausible solutions; •Compare relevant fisheries management regulations among international organizations, regional fisheries management organizations, and States; •Provide legal advice as a legal professional.	3	B	Institute of Marine Affairs and Resource Management	SDG10,SDG17,SDG16
2023	1112	Master	1	M37014JV	A	Contemporary Issues of the Law of the Sea	*Understand international environmental law regime and relevant important instruments *Enhance the ability to search, read, and analyze legal documents *Gain understandings of environmental sustainability *Provide professional analysis and critical thinking on contemporary fishery-related issues	3	B	Institute of Marine Affairs and Resource Management	SDG11,SDG16,SDG17
2023	1112	Bachelor	1	B9D01969	C	English	This course will focus on improving students' English reading and listening skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	1	B9D01969	D	English	This course aims to help students build up their vocabulary bank and improve their listening and reading skills. Students are also expected to have a broader world-view after taking this course.	2	A	Institute of Applied English	SDG3,SDG9,SDG12,SDG16,SDG14,SDG10,SDG5,SDG4
2023	1112	Master	1	M3701Q4E	A	Fishery Science and Management	This class aimed to give a broad discussion on the scope and the complexities of fishery science, characteristics of fishery resources, and possible influences of environmental changes and human exploitation on them. Some biological, social, and economical considerations on the utilization and management of these resources will be discussed. Trends in fisheries management and methods commonly used for the assessment of fishery resources also will be introduced. A balance between effective utilization and exploitation, as well as sustainable use of the fishery resources, is expected to be learned from the class.	3	B	Institute of Marine Affairs and Resource Management	SDG12,SDG14
2023	1112	Bachelor	1	B9D01969	2	English	While learners study a language, they are expected to be able to learn the most with the awareness of their learning autonomy and the willingness to express themselves actively in learning processes. Thus, based on that, this class will help students to improve skills necessary for better successful English communication, listening and speaking, through the use of English as the medium of instruction, the use of DVD / CD, and other classroom interactive activities. This will acclimate their ears to understanding spoken English easily, and oral practices will increase their speaking fluency. In order to master English as a tool of verbal communication, emphasis will also be included on developing native-like vocabulary (idioms), speech patterns, and pronunciation. In addition, there will be frequent classroom discussions.	2	A	Institute of Applied English	SDG4
2023	1112	Bachelor	2	B5702P36	B	Computer Network	This is a fundamental course for Computer Network-related courses. With this course, you will learn Basic computer network concept and principle	3	A	Department of Computer Science and Engineering	SDG1,SDG9,SDG5,SDG4,SDG3
2023	1121	Doctorate	1	D5311I38	A	Seminar	To prepare students with knowledges of how to write academic papers. To train students with skills of presenting papers in a conference.	1	A	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Master	1	M7201M3D	A	Special Topic on MEMS Fabrication Processes	This course is designed to train students engaged in microelectromechanical system research. By introducing advanced microelectromechanical process technology, students can have a deeper understanding of the essence of various processes. At the same time, combined with the actual operation of microelectromechanical process experiments, students can establish micro-electromechanical system related process technology and implementation capabilities to train micro-electromechanical system talents.	2	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Master	1	M720169P	A	Mechanical Behavior of Materials (I)	The subject of this course is very broad. The lecture teaches from the atomic point of view and extends to understanding the mechanism of solid deformation, and the principle of strength and toughness enhancement. Finally, the above fundamentals link to the mechanical behavior of structural materials in macroscopic view. The core teaching content includes the basic elastic mechanics, lattice defects, micromechanics, fracture mechanism, etc..	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9

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2023	1121	Bachelor	2	B56024XF	A	Introduction to Sustainable Oceans (I)	1. Teach students a preliminary understanding of the past, present and future changes of the marine environment. 2. Cultivate students' understanding of issues affecting the marine environment. 3. Educate students with professional knowledge and skills for developing sustainable oceans.	2	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG11,SDG14
2023	1121	Master	1	M3B014WA	B	Aquatic Animals and the Multidisciplinary Health Industry	The content covers the latest animal disease detection, prevention, nutrition and health related technology and industry information. The lecturers are experts and scholars with international experience and will teach in English. International students are welcome to enroll it his course and form an entrepreneurial team with local students.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG12,SDG11
2023	1121	Bachelor	3	B5203IEB	A	Special Topic Research	The construction of geotechnical foundation engineering projects often involves neighboring houses or important buildings such as high-rise buildings, MRTs, and high-speed railways. In order to avoid possible damage to neighbors or disasters, this course aims to teach students how to encounter close proximity to construction projects of different scales in current engineering practice. Or track projects such as high-speed rail or MRT, how to use theoretical analysis to determine management values such as warning values, action values and danger values in actual projects, and how to use monitoring instruments for safety management during the construction process.	2	B	Department of Harbor and River Engineering	SDG11
2023	1121	Doctorate	1	D7301NA7	A	Specialized Areas in Transportation Management	1. Understand current transportation management (including road, rail, air, and logistics), operation problems, and development trends. 2. Understand how to provide effective strategies to solve transportation management problems in order to enhance operation performance and service quality.	3	B	Department of Shipping and Transportation Management	SDG12
2023	1121	Bachelor	3	B6803649	A	Marketing Management	Let students understand the concept, composition and execution steps of marketing, and cultivate marketing project planning abilities and marketing creativity.	3	B	Department of Transportation Science	SDG1,SDG9,SDG12,SDG10,SDG8,SDG3,SDG5,SDG4
2023	1121	Doctorate	1	D660111C	A	Technical English Writing	In this course, our primary aim is to cultivate students'' abilities in critical thinking and effective communication, enabling them to articulate their perspectives clearly and coherently through English essays. Students will be guided meticulously from selecting pertinent topics, conducting in-depth literature reviews, organizing arguments, drafting, to revising their work. Emphasis is also placed on mastering the correct citation and referencing formats to ensure academic integrity. Ultimately, students will be equipped to produce rigorously structured, content-rich, and linguistically fluent academic essays, ready for presentation on the global academic stage.	3	B	Department of Marine Engineering	SDG1,SDG3,SDG12,SDG11,SDG10,SDG9,SDG8,SDG7,SDG6,SDG5,SDG4,SDG17,SDG16,SDG15,SDG14,SDG13,SDG2
2023	1121	Doctorate	1	D53012HI	A	AI Seminar for Industrial Applications	leraning to apply AI techniques in realizing Industry-Academic Collaboration project	3	B	Department of Electrical Engineering	SDG1,SDG4,SDG9,SDG10,SDG5
2023	1121	Master	1	M86011SH	A	Main Topics in Seismology: Shallow Earthquakes and the Crust	1. To guide the students: a. the main research topics in seismology b. the importance of those topics c. what kind of science problems the research results can answer 2. To train the students to think about the topic this interests them and learn how to start their researches in the beginning.	3	B	Institute of Earth Sciences	SDG4
2023	1121	Bachelor	3	B56032QS	A	Marine Corrosion and Protection	This course is designed for senior students who have learned fundamentals of material science, and provides the extensive knowledge about corrosion principles in metal and how to control corrosion as well, which can also be the basis of the further researching in corrosion related fields. 1. To understand the basic principles of corrosion. 2. To understand the forms and related mechanisms of corrosion. 3. To understand the prevention methods of corrosion.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG7,SDG14,SDG9,SDG13
2023	1121	Bachelor	2	B6F02H30	A	Dynamics	1. Establish the basic concepts of dynamics and the application of mathematical analysis capabilities in engineering, and lay the foundation for subsequent study of mechanics, mechanical design, fluid mechanics and other related advanced courses. 2. This course aims to meet the mandatory minimum knowledge, understanding and proficiency in Table A-III/1 of STCW 95 regarding operational level competencies in marine engineering and Table A-III/2 regarding mandatory requirements for management level competencies in marine engineering. requirements for knowledge, understanding and proficiency in Table A-III/1 and Table A-III/2 of STCW 1995 for the Competence Marine Engineering at the Operational Level)	3	A	Department of Marine Engineering	SDG4
2023	1121	Master	1	T45014EM	A	Engineering Management	This course introduces the current environment of the construction engineering industry at home and abroad, and helps students understand the importance, theoretical basis, and basic knowledge required for practical application of construction project management. Project management covers everything from project planning, design, contracting, and construction to completion acceptance. As for operation, maintenance, renewal and demolition, throughout the life cycle of the construction project, the basic resources of the construction project: money, time, manpower, machines, tools, and materials will be managed in a systematic way and means to ensure that the quality is on schedule and safety is guaranteed. Under the circumstances, the goal of the construction project is achieved. In addition, this course will introduce the overview of modern enterprise management and the theory and practice of general business MBA enterprise management, as well as discuss and visit excellent engineering management cases, so that students can have both engineering management professional and modern enterprise management knowledge.	3	B	Department of Harbor and River Engineering	SDG8,SDG11
2023	1121	Bachelor	2	E4Q02IML	A	Domestic Maritime Administrative Law	Consider the activity of marine transportation and the necessary change of the rules in different generation. To learn the regulations and content of R.O.C. national law of the sea is quite important. In the meantime, to have a good spirit and attitude to learn and follow the laws.	2	A	Department of Marine Engineering	SDG2,SDG13,SDG17
2023	1121	Bachelor	1	B92B8G1G	B	Rugby Football	1. Cognition (1) Understand the basic concepts and principles related to exercise and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to exercise. (2) Understand the relationship between exercise and healthy life, cultivate self-interest in exercise, and then develop regular exercise habits. (3) Understand the rules and common sense of various sports. 2. Skills (1) Develop various sports fitness and have the ability to engage in various sports. (2) Learn the basic movement methods and skills of various sports and become proficient in various sports techniques. 3. Affection (1) Ability to abide by rules, work as a team, and compete fairly. (2) Cultivate your temperament to appreciate the beauty of sports.	0	A	Office of Physical Education	SDG3
2023	1121	Master	1	M34011SU	A	Fundamental Laboratory Techniques of Biology	The course aimed to establish basic concepts in designing a biological experiment. Meanwhile, students shell understand biological principles and assumptions and planning its own study using limited time and resources	2	B	Institute of Marine Biology	SDG4,SDG14,SDG15

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2023	1112	Bachelor	1	E4Q02V73	A	Medical First Aid	This course is awarded in accordance with the International Maritime Organization (IMO) Model Course 7.03-3.5 Apply Medical First Aid on Board Ship (refer to the provisions of Model Course 1.14 and STCW Chapter 6 VI/4 Section 1-3). Relevant necessary knowledge is supplemented by practical skills.	2	A	Department of Marine Engineering	SDG3,SDG4
2023	1121	Doctorate	1	D73014XT	A	Industrial Strategy and Development	The objective of this course is threefold: 1) Cultivate students' integration capability of management and multidisciplinary knowledge, 2) Develop innovative industrial strategies, and 3) Solve the contemporary industry problems.	3	B	Department of Shipping and Transportation Management	SDG9,SDG12
2023	1121	Doctorate	2	D86022VJ	A	Inverse problem in groundwater modeling	Groundwater numerical simulation plays an important role in hydrogeology, and the numerical inversion theory and parameter rate rule in numerical simulation determine the success or failure of the numerical model. This course will teach the basic theory, mathematical derivation and practical application of numerical inversion. Students with a foundation in related courses such as hydrogeology, groundwater hydrology and numerical simulation will have the opportunity to learn about the latest international inversion theory. with its application on groundwater.	3	B	Institute of Earth Sciences	SDG4,SDG6
2023	1121	Bachelor	1	E4901ZRH	A	Read Selectively of China Ancient Humor Fables	1. This course focuses on teaching Chinese classical fables, and a total of seventeen fables (details in the table below) are selected to be studied together with the students. 2. As a literary genre, fable refers to the use of hypothetical stories or the use of personification of natural objects to illustrate principles, in order to achieve the effect of using the past to persuade the present and to use objects to satirize people, and often has the educational nature of exhortation; Only those who can understand the world and are wise can extract or create "fables" from daily life, which can be used to ridicule, warn, or persuade others in the moment. Traditional Chinese fables, those recorded in pre-Qin Dynasty, are the most original and pioneering. They are not only full of admonishment and educational significance, but sometimes also have a deep sense of humor, which has the effect of making people laugh and wake up immediately. These fables handed down since the pre-Qin Dynasty have gradually evolved into idioms due to their popularity, and they are widely circulated and familiar. However, few people today know their origin and originality. Therefore, through the establishment of this course, the lecturer has the power to act as a The role of a tour guide leads students to read original documents and enter the world where the ancients were sometimes sarcastic, sometimes humorous, and sometimes weird. 3. Strengthen the understanding of basic Chinese sentence patterns, vocabulary, and characters. 4. Learn about traditional culture and cultivate interest and ability to appreciate Chinese literature. 5. Cultivate the ability to use fluent words to express personal ideas and emotions.	2	C	Office of the Academic Affairs	SDG1,SDG5,SDG9,SDG12,SDG16,SDG10,SDG8,SDG4,SDG2,SDG3
2023	1121	Doctorate	1	D5301F8B	A	Advanced Solid State Physics	Solid state physics is an important basic course in integrated electronic circuits, semiconductor engineering and nanoscience. This course will establish students' basic concepts about solid crystals and physical properties, including the structural characteristics of crystal formation, types of solid states and crystal physical properties. , the concept of solid-state electronic components to establish the basic concepts of solid-state physics.	3	B	Department of Electrical Engineering	SDG4,SDG9,SDG8
2023	1121	Bachelor	4	B81044SP	A	Special Topics on the multi-scale air-sea interactions	This course will introduce the interactions and connections between the ocean and atmosphere that includes the ocean temperature and salinity, eddy, surface gravity waves, chlorophyll-a, typhoon, monsoon, and even the fish catch in different spatial and temporal scales. Students will learn the skills of journal reading, oral presentation, and the distributions and variations of multiple oceanic and atmospheric variables.	3	B	Department of Marine Environmental Informatics	SDG4
2023	1121	Bachelor	2	B9502Y0B	A	Introduction to Special Education	1. Understand the significance of special education, present implementation and development trends. 2. Understand the definition of special education needs, physical and mental characteristics of students with special education needs. 3. Understand the concept and practice of inclusive education and know the relative support and resources. 4. Learn the basic principles and strategies of teaching students with special education needs. 5. To establish respect for acceptance and positive support of the attitude, to provide parents, teachers and students appropriate assistance.	3	H	Teacher Education Center	SDG3,SDG10,SDG4
2023	1121	Bachelor	4	B3104H6Z	A	Ocean laws and regulations	To enable students to understand the connotation and application of the United Nations Convention on the Law of the Sea and its two implementation agreements, China's "Territorial Sea and Contiguous Zone Law" and "Exclusive Economic Zone and Continental Reef Law", and to enable students to have an in-depth understanding of China's surrounding waters, cross-strait and international Issues involving the East China Sea, the South China Sea and the Golden Horse Water Area will be covered to enhance students' literacy on ocean issues.	2	B	Department of Environmental Biology and Fisheries Science	SDG3,SDG4,SDG6,SDG15,SDG14
2023	1121	Bachelor	1	B9501Y2I	A	Health and Physical Education	1. Cultivate healthy physical fitness: Through the elements of Dacroze teaching and Laban dance teaching, students can develop their versatile and creative response abilities, understand physical development, and develop attitudes and abilities towards positive physical activities. 2. Cultivate healthy social fitness: Through the elements of Dacroze teaching and Labang dance teaching, students can develop the ability to actively interact with others and develop friendships.	2	H	Teacher Education Center	SDG3,SDG4,SDG10,SDG5
2023	1121	Master	2	T4J02Q92	A	Seminar in Managerial Accounting	Introduce cost concepts, planning and control methods of various cost elements and various cost accounting systems, so that students can understand how costs incurred in enterprise production activities are accumulated, how to allocate them to products or services, how to record them, and be able to reorganize and analyze relevant information. , to assist managers in the formulation, planning, control, and performance evaluation of different decisions to achieve corporate goals.	3	A	Department of Shipping and Transportation Management	SDG4
2023	1121	Master	1	T45014R6	A	Innovative technology in water resource	In the study of water resource management and disaster prevention, it is obvious that some newly-developed innovative technologies are adopted in the recent years. The most important ones among these innovative technology includes optimization algorithms, remote sensing technology, low impact developments and geographic information system. These cutting-edge technology has already provided some novel applications and developments in water resource management and conservation in the past decades. In addition, it can be expected that these innovative technologies will definitely play an important role in the study of water resource management and conservation in the future. Thus, to provide the basic knowledge, up-to-date engineering applications and possible future developments of these innovative technology to students is the core objective of this class.	3	B	Department of Harbor and River Engineering	SDG6
2023	1121	Bachelor	4	B81044SQ	A	Polar Ocean and the climate circulation	This is a reading course that will cover the topics of the physical oceanography of the poles, which include sea ice, the changing climate, and the air-sea circulation that potentially affects the sea ice extent and thickness. The class is divided into two parts, one in which we will do some background reading from the text-book of Sea Ice. The second part of the course will involve reading research articles on topics that extend our reading from the first part of the class. The goal of this course is to explore the Arctic, the Antarctic, the sea ice, and the climate changes in the poles to provide a basic foundation of knowledge.	3	B	Department of Marine Environmental Informatics	SDG13,SDG14

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2023	1121	Bachelor	2	B3802J51	A	Cell Biology	Based on what students learned from General Biology, Cell Biology will extend the knowledge about a cell in a deeper and broader way. Students will learn how a cell works on survival, locomotion, communication, and propagation with one another. The goal of Cell Biology is to support students with a comprehensive understanding when they step into the life science field to learn Molecular Biology and more subjects.	3	A	Bachelor Degree Program in Marine Biotechnology	SDG4
2023	1121	Bachelor	2	E4Q02MO2	A	Marine Engineering Maintenance & Overhaul (2)	improve the technical level of senior seafarers, so that the engineers who are assigned to serve as engineers and above can meet the requirements of A-III/1,2 of the International Convention on the Training, Certification and Duty Standards of Engineers (STCW CODE)	2	A	Department of Marine Engineering	SDG4
2023	1121	Master	2	T46021S5	B	Civil Code - Kinds of Obligation	Civil law is an important standard for resolving disputes between private individuals. Each treatise on debt stipulates the validity of contracts that may occur in social transactions and serves as the criterion for our social transactions.	2	A	Institute of the Law of the Sea	SDG1,SDG4,SDG5,SDG11,SDG16,SDG10,SDG9,SDG8
2023	1121	Master	2	M74121RZ	B	Code of Civil Procedure	Let students have a comprehensive understanding of civil procedure law after studying it, which will serve as the basis for improving their knowledge of procedure law.	2	A	Institute of the Law of the Sea	SDG1,SDG10,SDG12,SDG16,SDG11,SDG9,SDG4,SDG8,SDG5
2023	1121	Bachelor	2	B6F0208A	A	Engineering Mathematics (I)	This course provides a comprehensive, thorough, and up-to-date treatment of engineering mathematics. It is intended to introduce students of engineering, physics, mathematics, computer science, and related fields to those areas of applied mathematics that are most relevant for solving practical problems. A course in elementary calculus is the sole prerequisite.	3	A	Department of Marine Engineering	SDG4,SDG11,SDG12,SDG14
2023	1121	Master	1	M3C014XD	A	Topics on Marine Biotechnology	To learn the concepts of marine biotechnology and the applications of biotechniques to achieve marine sustainability	3	A	International Master Program in Marine Biotechnology and Environmental Ecology Sustainability	SDG14
2023	1121	Master	1	T4A01H7Z	A	International Shipping Policy	To enable students to understand the current trends in international shipping related to crews, ships, shipbuilding subsidies, international port operations, maritime policies and international conventions, so as to increase the research basis for writing thesis in the future.	2	B	Department of Merchant Marine	SDG8,SDG16
2023	1121	Master	2	M9C0226U	A	Seminar on the Regulation and Practice of Tourism	(1). Through curriculum design, we connect the exchanges and interactions between industry, government, academia and research, hoping to help students obtain employment in the future and establish an industry-university cooperation platform. (2). Through industry fieldwork and visits, it helps students plan their careers early, enhances employment skills and knowledge in the tourism industry, brings into play the sentiment of caring and serving the society, and allows schools and industries to establish a symbiotic relationship of "industry, academia and family" , students will implement what they have learned in social services to practice high-quality citizenship. (3). Teachers and students will combine and apply tourism theory and practice to coordinate with government policy objectives, help promote local and national tourism strategies, and move towards the ideal state of ecological and sustainable tourism.	2	B	Institute of Oceanic Culture	SDG16
2023	1121	Bachelor	3	B71030N0	B	SOLAS and MARPOL	1. Make students aware of the content of the Convention on the Safety of Life at Sea and related regulations. 2. Make students aware of the content of the Convention on the Prevention of Marine Pollution.	2	A	Department of Merchant Marine	SDG4,SDG17,SDG13,SDG14,SDG6
2023	1121	Master	1	M3C014XE	A	Topics on Marine Environmental Ecology Sustainability	The course aims to provide comprehensive knowledge on marine environment, ecology and sustainability. The course encourages students to initiative follows recent marine ecological concepts related research by updated scientific articles reading and discussion.	3	A	International Master Program in Marine Biotechnology and Environmental Ecology Sustainability	SDG4,SDG13,SDG17,SDG14
2023	1121	Bachelor	2	E4Q02MO2	B	Marine Engineering Maintenance & Overhaul (2)	improve the technical level of senior seafarers, so that the engineers who are assigned to serve as engineers and above can meet the requirements of A-III/1,2 of the International Convention on the Training, Certification and Duty Standards of Engineers (STCW CODE)	2	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	2	E4B025A0	A	Introduction to Business Management	This course introduces basic concepts related to modern enterprises	2	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Master	2	T46021S0	A	Civil Code - Property	This course provided the basic knowledge of Civil Law - Property for the students. The purpose of this course is to Introduce general theory and basic principles of property . Also it will guide the students to survey the current problem of society. It will introduce the differences and interrelations between theoretical and juridical practice. We also emphasize on motivating students'' analysis ability to help them familiarize with the some important general ideas and notions as law, such as rights and duties, the nature of legal concept and legal method. Both paper and test will be included in this class. We have two classes every week. Classroom discussion will be necessary.	2	A	Institute of the Law of the Sea	SDG1,SDG10,SDG12,SDG16,SDG5
2023	1121	Bachelor	3	B52034K9	A	Special Topic Research- Application of Geographic Information System	The purpose of this course is to introduce the basic structure, related knowledge, and usage methods of geographic information systems. This special course is conducted in a practical way to enable students to have basic execution skills of geographic information systems and be able to connect and apply them with future related engineering courses.	2	B	Department of Harbor and River Engineering	SDG11
2023	1121	Bachelor	2	B3B020F5	A	Introduction of Molecular Biology (I)	Familiar with core learning abilities in the field of life sciences, especially the ability to adapt to university biochemistry courses	1	B	Department of Bioscience and Biotechnology	SDG3,SDG4,SDG14
2023	1121	Bachelor	2	B9502Y3K	A	Teaching Methods and Materials of Social Science	1. Students can understand and analyze the teaching materials in social study. 2. students can gain the competence of applying teaching methods in social study. 3. Students can design the lesson, select the appropriate methods, and conduct teaching in social study.	2	H	Teacher Education Center	SDG4
2023	1121	Master	1	M33014SZ	C	Big Data Management of Aquaculture	The world has entered the era of data intelligence. In recent years, the transformation and upgrading of traditional industries has been promoted. The aquaculture industry has also developed AIoT, big data and image recognition in combination with information technology (IT), digital technology (DT) and artificial intelligence (AI). Intelligent management system. This course emphasizes the application of big data management, including: smart oxygenation equipment assisted precise monitoring of water quality environment (connecting water quality monitoring results to smart waterwheels and other Internet of Things devices), AI-assisted high-quality edible ornamental species performance (phenomics) precision breeding, big data management and production and sales history, etc., to promote the transformation and upgrading of the aquaculture industry.	2	B	Department of Aquaculture	SDG4,SDG9
2023	1121	Bachelor	3	E4103E40	A	Charter Party	Let students understand the main terms and contract details of various ship charter contracts.	2	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Doctorate	1	D7401H82	A	Seminar on International Law (II)	The course aims to equip doctorate students with the ability to: (1) comrpehend a series of contending issues in international law; (2) grasp a variety of methods in applying international case law; (3) provide international legal arguments.	2	B	Institute of the Law of the Sea	SDG1,SDG16,SDG17
2023	1121	Master	2	T4E024XY	A	Marine Field Observation	This course will describe the current development and methods of ocean monitoring at home and abroad, as well as its implementation.	2	B	Department of Marine Environmental Informatics	SDG7,SDG17,SDG13
2023	1121	Bachelor	2	E4Q01OP2	A	Marine of Auxiliary Machinery Overhaul Practice (2)	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards for "Keeping a Safe Watch" as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2.	2	A	Department of Marine Engineering	SDG4

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2023	1121	Bachelor	2	B56024XA	A	Innovative technoloty in engineering (I)	Due to the rapid development of science and technology in recent years, a variety of newly developed tools and technologies have been adopted in the fields of civil, water conservancy and ocean engineering, such as disaster prevention technology and low-impact development, computational fluid dynamics and computer simulation, wind tunnel experiments and wind engineering , hydraulic model experiments and applications, telemetry technology and applications, computer simulation analysis of ocean and maritime engineering, computational mechanics, etc. These newly developed technologies have provided many important novel applications and developments in the engineering field, and will have the opportunity to become leading players in the engineering field in the future. Key technologies. Therefore, the main goal of this course is to introduce to undergraduate students the basic principles of these new technologies, the latest engineering application cases, and possible future application directions, so that students can have the ability to understand and use these new technologies and apply them correctly. Various types of engineering fields	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG7,SDG13,SDG9,SDG11
2023	1121	Bachelor	3	B300310G	A	Plant Physiology	To facilitate plant physiological processes of growth, development and defense responses on the basis of plant physiology.	3	B	College of Life Sciences	SDG1,SDG12,SDG14,SDG15,SDG13,SDG9,SDG2,SDG4
2023	1121	Master	1	T450115B	A	Slope Land Sustainable Development and Utilization	This course integrates and introduces the basic concepts and knowledge of various disciplines necessary for the review of relevant laws and regulations for slope engineering development, slope environmental geology, slope site investigation, slope land utilization potential, slope planning and water conservation engineering technology, and also discusses slopes. Stability safety analysis, safety monitoring, existing slope community safety assessment, application of slope hazards and prevention technologies, and case evaluation explanations enable trainees to have the basic literacy and expertise to participate in sustainable slope development, utilization and conservation after graduation. Knowledgeable, especially the impact of the 1988 Flood on landslide disasters on slopes in Taiwan, and understanding of land planning and sustainable utilization	3	B	Department of Harbor and River Engineering	SDG4,SDG13,SDG15,SDG8
2023	1121	Master	1	M740145O	A	Seminar on Ocean Policy (I)-General Provisions	Understand the basic theory and practice of international ocean policy	2	B	Institute of the Law of the Sea	SDG14,SDG17,SDG16
2023	1121	Master	2	M9A023MY	A	Special issue on moral education	1.understanding the implication and significance on moral education 2.discussing teaching methods on moral education 3.practicing moral education into school education	2	B	Institute of Education	SDG4,SDG12,SDG16,SDG10
2023	1121	Master	1	M740134N	A	Seminar on Fisheries Law	Understand the basic theory and practice of fisheries law	2	B	Institute of the Law of the Sea	SDG8,SDG10,SDG14,SDG17,SDG16
2023	1121	Master	1	T4I01F97	A	Shipping Management	The aim of the course is to provide students with an advanced understanding and investigating the important issues on shipping operation and management, the current practices, and the academic research themes and future study directions.	3	A	Department of Shipping and Transportation Management	SDG14
2023	1121	Master	1	M3B01IAH	B	Intelligent aquarium and health healing	Ornamental aquariums include ornamental fish, shrimp, and aquatic ornamental plants, and can be extended to aquarium landscaping, ecological conservation, intelligent fish tanks. In recent years, due to the issue of physical and mental healing has become more important, nurturing aquatic creatures which can provide pleasant and treatment effect has drawn a lot of attention. Students enrolled in this course can learn from the basic ornamental aquarium system to the museum-level aquarium, from fish, shrimp, plants to landscaping and design of newly developed intelligent aquariums.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG9,SDG14
2023	1121	Bachelor	1	B92L8G04	L	Badminton (Beginner)	A.Cognition 1.Understand the basic concepts and principles related to sports and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to sports. 2.Understand the relationship between exercise and healthy life, and cultivate self-interest in exercise, and then develop regular exercise habits. 3.Understand the rules and common sense of badminton B.Skill 1.Develop badminton fitness and have the ability to engage in badminton sports 2.Learn the basic sports methods and skills of badminton sports, and be proficient in badminton skills C.Affection 1.Abide by the rules, teamwork, fair competition 2.Cultivating temperament to appreciate the beauty of sports	0	A	Office of Physical Education	SDG3
2023	1121	Bachelor	1	B92H8G10	H	Table Tennis (Beginner)	1. Cultivate students' interest in table tennis and improve their skills 2. Enjoy the fun of table tennis and enrich their leisure life	0	A	Office of Physical Education	SDG3
2023	1121	Master	2	T4F012IZ	A	Issue on practice and research of educational sociology	1.Students can understand the evolution, theory and method of educational sociology. 2.Students can conduct the topic inquiry fro macro and micro opinions. 3.Students can be engaged in doing research of educational sociology and improve the educational revolution.	2	B	Institute of Education	SDG8,SDG10
2023	1121	Bachelor	3	B530334Y	A	Special topic on electromagnetics	Through the accuracy setting of software simulation and guidance in the design of high-frequency circuits, students' sense of achievement is enhanced and students' interest in the electromagnetic field is increased.	1	B	Department of Electrical Engineering	SDG4,SDG9
2023	1121	Bachelor	1	B9501Y3U	A	Special Topic on Educational Issues	1. understaning current education issues 2. exploring the significance of various educational issues 3. designing curriculum on educational issues	2	H	Teacher Education Center	SDG4,SDG13,SDG15,SDG17,SDG16,SDG14,SDG12,SDG5,SDG10
2023	1121	Bachelor	1	B9501YA9	A	Chinese Phonetics and Speaking	1. Understand the meaning and principles of Chinese phonetics 2. Understand the sounds, rhymes, tones and pinyin of the Chinese pronunciation and its teaching methods 3. Be able to understand speaking skills and apply them appropriately in teaching	2	H	Teacher Education Center	SDG4
2023	1121	Master	2	T4J02D89	A	Financial Management	Through the study on the real cases, the course helps students understand the real process of financial management, the characteristics of financial markets, and also the main frame of international markets.	3	A	Department of Shipping and Transportation Management	SDG1,SDG10,SDG12,SDG17,SDG16,SDG11,SDG9,SDG4,SDG5,SDG8,SDG2
2023	1121	Bachelor	3	B73030T1	A	Green Supply Chain Management	After completing this course, learners will be able to: •discuss the functional breadth and topical scope of supply chain sustainability. •evaluate supply chain sustainability tools and metrics that would work for their organization. •describe and suggest applications for the role of purchasing in green supply chain management. •explain how sustainability reporting and social responsibility reporting can be used to support green supply chain. •discuss how transportation affects green supply chain, and how inter-organizational relationships can help increase transportation sustainability. •outline the possible trade-offs between sustainability, safety, and efficiency.	3	B	Department of Shipping and Transportation Management	SDG9,SDG13,SDG12

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2023	1121	Master	1	T4X01PPP	A	Academic Research Ethics	To cultivate higher education students who have just entered the research field to understand the importance of academic ethics. It is hoped that through the course, students will improve their academic ethical thinking, universal values, legal norms and other ethical knowledge, and enhance their understanding of the implications and practical aspects of academic ethics and research ethics. Understand and implement honest and responsible research conduct	0	A	Institute of Food Safety and Risk Management	SDG4
2023	1121	Bachelor	1	B92I8G10	I	Table Tennis (Beginner)	1. Cultivate students' interest in table tennis and improve their skills 2. Enjoy the fun of table tennis and enrich their leisure life	0	A	Office of Physical Education	SDG3
2023	1121	Doctorate	1	D3401X92	A	Topics on the Copepod Behavior	Copepods have a wide range of feeding habits and the feeding habits of different types of copepods are also very different. At present, there are over 14,000 species of copepods published in the world, and the biomass of marine planktonic copepods accounts for about 70% of marine zooplankton. Feeding habits range from herbivorous, omnivorous, carnivorous, parasitic, and even scavenging. This course will broadly introduce the feeding habits, behavior, and ecology of copepods. The class method includes discussions on related topics in journals and magazines and the latest feeding habits. The research progress of this course is suitable for doctoral students, but it is taught or discussed in English. Zooplankton are not only the bait of carnivorous organisms in the water body, but also often the predators of tiny organisms in the water. Herbivorous zooplankton eat algae, and carnivorous zooplankton capture their own kind. The purpose of this course is to train students how to write a	3	B	Institute of Marine Biology	SDG14
2023	1121	Bachelor	4	B6C042E0	A	System design and implementation	The purpose of this class is to provide students for system implementation ability.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	1	B71010FA	A	Introduction to Merchant Ship	This course, complying with the International Maritime Organization (IMO) Model Course 7.03-3.1 ENSURE COMPLIANCE WITH POLLUTION-PREVENTION REQUIREMENTS, is designed for new students entering the department to receive the basic knowledge of merchant ships through the concept of risk and norms, and is acting as the technical and cognitive foundations of various professional courses in follow-up study.	2	A	Department of Merchant Marine	SDG4,SDG16,SDG17,SDG12,SDG14
2023	1121	Master	1	M9A021NS	A	Special Topic on Instructional Media and Technology	1. Understand the use of media in teaching and learning. 2. To become well-versed in various teaching media. 3. To develop the ability to create teaching media.	2	B	Institute of Education	SDG4,SDG17
2023	1121	Master	1	T4F021NS	A	Special Topic on Instructional Media and Technology	1. Understand the use of media in teaching and learning. 2. To become well-versed in various teaching media. 3. To develop the ability to create teaching media.	2	B	Institute of Education	SDG4,SDG17
2023	1121	Doctorate	1	D3301U71	B	Nutritional Genomics	The growth of vertebrates is controlled by many factors, one of which is nutrition. Nutrigenomics mainly explores the science related to nutritional metabolism from the perspectives of genetics, biochemistry and nutrition. This course integrates the perspectives of Genomics, gene regulation, and Metabolism. It is hoped that through the introduction and study of this subject, students can further understand the relationship between animal growth processes and nutrition.	3	B	Department of Aquaculture	SDG14
2023	1121	Bachelor	1	B9500Y56	A	Teaching Strategies	1. Explore the concept and meaning of teaching and learning. 2. Understand the important theories, principles, principles and teaching methods of teaching and learning. 3. Design teaching plans and use related teaching resources. 4. Appreciate the use of teaching objectives and lesson plan design. 5. Be familiar with basic teaching methods, principles, strategies and techniques. 6. Apply teaching principles, methods, and strategies in teaching presentations. 7. Be an effective and innovative teacher.	2	H	Teacher Education Center	SDG4,SDG17,SDG5
2023	1121	Master	1	M9A01ED2	A	Research on Education of Sociology	1.Students can understand the evolution, theory and method of educational sociology. 2.Students can conduct the topic inquiry fro macro and micro opinions. 3.Students can be engaged in doing research of educational sociology and improve the educational revolution.	2	B	Institute of Education	SDG4,SDG10
2023	1121	Bachelor	1	B9500Y54	A	Socialogy of Education	1.Students can understand the basic concepts and theory of educational sociology. 2.Students can comprehensive the basic interrelationship between society and education so that they can control the social context of educational development. 3.Students can understand influence factors in society and use them to promote the educational effectiveness.	2	H	Teacher Education Center	SDG10
2023	1121	Doctorate	1	D81013R2	A	Special Topics in Nearshore Processes and Coastal Practices	The objective of this course is to introduce the principles of nearshore/coastal processes, theoretical/mathematical/physical modelling approaches, and practical design problems.	3	B	Department of Marine Environmental Informatics	SDG4
2023	1121	Bachelor	3	B5333P18	B	Lab for Electronics	Training the students in experiments and increaseing the understanding of electronics.	1	A	Department of Electrical Engineering	SDG4
2023	1121	Doctorate	1	D86011OI	A	Geological Investigation of Ore Deposits	The east coast of Taiwan is rich in mineral resources. Through book and newspaper discussions, students can understand the distribution of mineral resources in Taiwan, and actually understand the distribution and occurrence of mineral veins during field geological surveys. In the future, it can promote students' employment and use learning results as a reference for future field geology course planning.	3	B	Institute of Earth Sciences	SDG1,SDG4,SDG8,SDG11,SDG9
2023	1121	Bachelor	1	B80014X3	A	Geology and life	Acquire a fundamental comprehension of the fundamental concepts and principles of geology and their practical applications in real-world situations. Investigate how the Earth''s dynamic processes and geological features impact human societies and how human activities can have an effect on the Earth''s surface and subsurface. Appreciate the significance of geology in everyday life, including the utilization of mineral resources and the consequences of natural hazards. Enhance critical thinking skills and utilize geological knowledge to solve practical problems concerning environmental and societal issues.	2	B	College of Ocean Science and Resource	SDG4,SDG15,SDG14
2023	1121	Bachelor	1	B92M8G04	M	Badminton (Beginner)	A.Cognition 1.Understand the basic concepts and principles related to sports and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to sports. 2.Understand the relationship between exercise and healthy life, and cultivate self-interest in exercise, and then develop regular exercise habits. 3.Understand the rules and common sense of badminton B.Skill 1.Develop badminton fitness and have the ability to engage in badminton sports 2.Learn the basic sports methods and skills of badminton sports, and be proficient in badminton skills C.Affection 1.Abide by the rules, teamwork, fair competition 2.Cultivating temperament to appreciate the beauty of sports	0	A	Office of Physical Education	SDG3

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2023	1121	Bachelor	1	B9500Y42	A	Science Education	This course is designed to help teacher trainees understand the subject characteristics, theoretical basis and teaching applications of science education, so that students can have a general understanding of science education. It is especially designed to help teacher trainees understand the diversity of science education. Orientation - Science education is not only about imparting well-developed scientific knowledge and asking students to remember this knowledge, nor is it about training hands-on experiments or inquiry process skills, but its core is to cultivate students' scientific literacy by allowing students to understand the nature of science. , expecting students to have the ability to solve cross-field problems and judge information on scientific issues to cope with future challenges - this coincides with the 108 curriculum's emphasis on competency-based teaching, and is also natural with the 108 curriculum The science field emphasizes the goal of "cultivating students' science literacy and inquiry and practical abilities". In addition to understanding the core goals of science education, through the sharing of lesson plans and case studies, and demonstrations and discussions by current teachers, it is expected that teacher trainees will deepen their understanding of the connotation of science education, which will help them teach science after becoming formal teachers in the future.	2	H	Teacher Education Center	SDG1,SDG10,SDG4
2023	1121	Bachelor	1	B6F011LV	B	Introduction to Marine Engines	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2. By introducing various types of ships and their propulsion (main) and auxiliary systems, students can establish their initial concepts in the field of marine engineering, which will help them further study related theoretical and practical courses.	3	A	Department of Marine Engineering	SDG4,SDG7,SDG11,SDG14,SDG17,SDG9
2023	1121	Master	1	M520195A	A	Technical Writing for Scientific Paper	With the rapid development of science and technology, it is urgent to express work results in written or oral form. This course aims to guide students in basic skills and practical practice opportunities in writing and oral reporting, from the shallower to the more advanced, and finally master the essence of expression and enjoy the fun of writing and oral reporting.	2	B	Department of Harbor and River Engineering	SDG4
2023	1121	Master	1	T4301021	A	Artificial Intelligence	Learn the basic theory and application techniques of artificial intelligence	3	B	Department of Electrical Engineering	SDG1,SDG14,SDG17,SDG15,SDG13,SDG5,SDG7,SDG11,SDG10,SDG2
2023	1121	Bachelor	1	B92E8G16	E	Volleyball (Beginner)	(1) Cognition 1. Understand the basic concepts and principles related to volleyball and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to volleyball. 2. Understand the relationship between exercise and healthy life, cultivate self-interest in exercise, and then develop regular exercise habits 3. Understand the rules and common sense of volleyball (2) Skills 1. Develop volleyball fitness and have the ability to engage in volleyball 2. Learn the basic movement methods and skills of volleyball and become proficient in volleyball techniques (3) Affection 1. Ability to abide by rules, learn teamwork and fair competition spirit 2. Cultivate your temperament to appreciate the beauty of sports	0	A	Office of Physical Education	SDG3
2023	1121	Doctorate	1	D8101982	A	Computational Fluid Dynamics	To enable students to understand the numerical simulation calculation methods of ocean and coastal related physical phenomena, and then cultivate interest in related research work, and have sufficient mathematical ability when entering related industries in the future.	3	B	Department of Marine Environmental Informatics	SDG4,SDG9
2023	1121	Master	2	M74121RV	B	Criminal of Criminal Procedure	The goal of this course is to enable students to understand the principles and basic principles of criminal procedure, and to establish an overall concept of the proceedings.	2	A	Institute of the Law of the Sea	SDG10,SDG16
2023	1121	Bachelor	1	B92H8G65	H	Weight Training	cognition Understand the basics of weight training Learn how to operate various weight training equipment Learn how to improve your fitness with weight training Skill Ability to correctly operate a variety of weight training equipment Ability to correctly execute a variety of physical training programs Able to select and implement correct training methods based on set goals	0	A	Office of Physical Education	SDG3
2023	1121	Master	1	M741180G	B	Japanese for Law Student	This course is mainly an introductory course in Japanese for legal studies. It includes the teaching of basic sentence patterns and grammar to cultivate students' basic ability to pronounce Japanese correctly and effectively learn and apply basic Japanese grammar. It also helps students accurately master the professional terminology of legal Japanese and through rigorous reading and interpretation of Japanese documents. understanding, and then lay the foundation for Japanese reading skills, with a view to being able to read Japanese legal literature after advanced courses.	2	B	Institute of the Law of the Sea	SDG1,SDG12,SDG16,SDG17,SDG13,SDG11,SDG5,SDG8,SDG10,SDG9,SDG4
2023	1121	Bachelor	2	B770207D	A	Game Theory for Managers	1.The objectives of this course are to provide students with a fundamental understanding of game theory concepts and to cultivate their reading analysis ability, critical thinking, and communication skills. 2.By applying the theoretical knowledge gained in class, students are expected to develop their skills in producing reports demonstrating their game theory proficiency. 3.Furthermore, the course fosters teamwork through guided readings and group presentations for the final report.	3	B	Bachelor Degree Program in Ocean Business Management	SDG8,SDG17,SDG16,SDG9,SDG12
2023	1121	Master	1	M5201858	A	Sediment Transport	Use the theory of river hydraulics to explore the movement behavior of mud and sand in river channels and the changing phenomena of river beds to understand the large-scale and small-scale change processes of river channels.	3	B	Department of Harbor and River Engineering	SDG4,SDG11,SDG13
2023	1121	Bachelor	3	B7203672	A	Refrigeration and Air Conditioning	This course introduces the basic theory, performance analysis and design of refrigeration and air-conditioning systems and their components.	3	B	Department of Mechanical and Mechatronic Engineering	SDG3,SDG11,SDG4
2023	1121	Bachelor	4	B720416W	A	Introduction to Machine Tools	Understand machine tools'' basic structure, design principles, applications, and development trends.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG12,SDG9

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2023	1121	Bachelor	2	B56024WP	A	Marine and Nearshore Topographic Survey	The ocean is rich in resources. With the development of ocean exploration technology, the scope of utilization of ocean resources is becoming more and more extensive. The development of the marine economy and the development and utilization of marine resources have become the focus of attention around the world. Marine resource development management and development, oceanographic surveying takes oceans and land waters as the research object, and studies the theory and method of measurement of ports, docks, waterways and underwater topography. Oceanographic surveying is the basis for all ocean activities. This course is designed to first establish students' basic knowledge of surveying, and then enter the study area of oceanographic surveying, so that students can acquire basic skills in oceanographic surveying.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG13,SDG14
2023	1121	Master	1	M86013LN	A	Principle and Application of Raman Spectroscopy	Familiarize students with the fundamental principles and the operation of Raman spectrometer. Let students learn how to use Raman spectroscopy as a tool in the research of geological materials.	2	B	Institute of Earth Sciences	SDG4,SDG9,SDG8
2023	1121	Bachelor	4	B7304H81	A	The Law of the Sea	The main goal of this course is to assist students in understanding the law of the sea systematically. The content will focus on the relationship between the state as the law enforcement body of the law of the sea and global governance. This course is supplemented by relevant judicial precedents to help students understand the core concepts and the current development of the law of the sea.	2	B	Department of Shipping and Transportation Management	SDG7,SDG17,SDG14
2023	1121	Master	1	M7301D71	A	Case Study on Marine's Law	1. Understand the basic contents and application methods of maritime law and marine insurance law 2. Understand the legal and practical applications of various types of international business and logistics contracts 3. Cultivate the ability to analyze and solve issues related to maritime law and marine insurance law	3	B	Department of Shipping and Transportation Management	SDG9,SDG13,SDG14,SDG17
2023	1121	Bachelor	1	B7101Z7W	A	Introduction to Coast Guard Law	To enable students to have a preliminary understanding of the relevant legal basis for the implementation of tasks by my country''s Coast Guard, security inspection and law enforcement guidelines, and to cultivate students'' basic knowledge of marine affairs laws and regulations. Make it possible to understand and apply basic practical issues when entering the sea patrol-related workplace.	2	B	Department of Merchant Marine	SDG8,SDG14
2023	1121	Doctorate	1	D8101U9K	A	Environmental Organic Chemistry	The aims of this course is to understand the properties of different functional group compounds and their behaviors in the environment.	3	B	Department of Marine Environmental Informatics	SDG7,SDG15,SDG14
2023	1121	Master	1	M7401T54	B	Constitutional Law	This course aims to investigate the constitutional function of protecting individual''s human rights and its role in a democratic political system from the perspectives of political philosophy and constitutionalism. The course will discuss values, theories and institutions of constitution law. Finally it will also research on correlation between constitutional institutions and protection of human rights.	2	A	Institute of the Law of the Sea	SDG1,SDG10,SDG16,SDG13,SDG12,SDG11,SDG9,SDG3,SDG6,SDG7,SDG8,SDG5,SDG2
2023	1121	Bachelor	2	B95023LG	A	Teaching Methods and Materials of Science	1. Understand the curriculum structure and familiar teaching materials of "Natural Science Field" in elementary schools. 2. Learn and practice the teaching strategies and teaching methods of "Natural Science Field" in elementary schools by reading designated textbooks, trial teaching and writing lesson plans. 3. Invite experts and practical teachers to share and explore teaching methods and teaching strategies in the "natural science field".	2	H	Teacher Education Center	SDG1,SDG10,SDG4
2023	1121	Master	1	M9C013GP	A	Topics on the History of Fishery in Taiwan	1. Taiwan is an island country, and its marine resources and activities have naturally attracted the attention of successive governments. Fisheries is one of the important marine resources, so it naturally has a rich history and culture. We hope that through this course, students can learn more about it. Learn more about the richness and particularity of Taiwan’ s fishing history and culture. 2. From knowing the sea and being close to the sea to using the sea and caring for the sea. 3. Build a solid foundation for students’ relevant research methods.	2	B	Institute of Oceanic Culture	SDG14
2023	1121	Bachelor	2	B72022CK	A	Electromagnetics (I)	The goal of this course is to provide students with basic knowledge of electromagnetics, including physical concepts and mathematical skills for solving standard problems in electromagnetics.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	1	E4911H61	B	Chinese	By reading the classic works of thinkers and writers, students can not only improve the foundation of their language skills, but also be able to reflect on their own life situations and attitudes towards others, so that classics can be integrated into personal life. In addition, we hope to train students in coordination, communication, oral expression, image communication and other abilities through discussions, reports, multimedia teaching and other methods.	2	A	Office of the Academic Affairs	SDG4
2023	1121	Doctorate	1	D8901N6Y	A	Ceramic Materials	Provide basic knowledge of bonding and structure of ceramic materials and their impact on various properties of ceramics. Assist students to learn the impact of different manufacturing processes and tempering techniques on the structure and properties of ceramics. Introduce various ceramics and their application methods, and use structural ceramics as the topic of discussion to help students understand the trends in material development.	3	B	Department of Optoelectronics and Materials Technology	SDG9
2023	1121	Master	1	M33012EF	B	aquaponic	Understand and learn the principle of integrated systems, controlled environment agriculture, the requirement of aquatic animal, plants, and algae, aquaculture wastewater treatment, and sustainable food production. Train students to read scientific papers and write research proposal.	3	B	Department of Aquaculture	SDG1,SDG4,SDG6,SDG12,SDG2
2023	1121	Bachelor	1	B9500Y02	A	Introduction to Education	This course aims to cultivate the basic theoretical knowledge of education in teacher training students, and deepen the ability of teacher training students to teach formal courses, as well as the enthusiasm and correct attitude for engaging in education. In order to achieve the above purpose, on the one hand, through course teaching and discussion, teachers train students to cultivate basic knowledge in various fields of education introduction; on the other hand, through the observation of various educational phenomena, through reflective dialogue and issue transformation and other exchanges and dialogues, cultivating teachers and cultivating students’ interest and sensitivity in education, and pursuing professional growth-oriented career development. 1. Cultivate basic academic knowledge of education. 2. Cultivate interest, enthusiasm and correct attitude in the education profession. 3. Cultivate the skills to analyze and solve problems in educational phenomena.	2	H	Teacher Education Center	SDG4
2023	1121	Master	1	M52014WW	A	Mathematical models in ocean engineering	This course is designed to help students of ocean engineering acquire the foundational mathematical abilities necessary for a solid grounding in the field. The concepts covered here will provide a solid foundation for advanced research in a wide variety of ocean engineering subfields.	3	B	Department of Harbor and River Engineering	SDG4,SDG7,SDG14
2023	1121	Bachelor	3	B68033Y5	B	Big data in Transportation system Applications	Big Data is generally broadly interpreted as a large amount of information. When the amount of data is so large that it is difficult for the database system to store, calculate, process and analyze it into interpretable information in a short period of time, it is called Big Data. Precious information is hidden in big data. Therefore, in recent years, not only various research fields have gradually paid attention to the exploration and analysis of big data, but also transportation research units have recently invested a lot of resources in big data (Big Data) analysis in response to technological trends and changes in information data application methods. Traffic management and service applications. From a practical implementation perspective, this course discusses the topic of big data in the future development of the domestic transportation system, introduces the basic concepts and analysis tools of big data, and introduces the current domestic big data data analysis and data exploration results in the transportation system.	3	B	Department of Transportation Science	SDG9

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2023	1121	Bachelor	4	B6C043E5	A	Internship in Information and Communication Engineering	The course enables students to develop their work attitude and practical application ability of professional knowledge in the corporate workplace. It can also broaden students'' horizons, enhance students'' competitiveness, and contribute to their career planning.	7	B	Department of Communications Navigation and Control Engineering	SDG8
2023	1121	Master	1	M67010KC	A	Topics on Navigation System I	The aim of this course is twofold: (1) to allow you to make progress on your research in a structured way (2) to present professionalization information crucial to success in the field.	1	B	Department of Communications Navigation and Control Engineering	SDG4,SDG17
2023	1121	Bachelor	1	B9500Y51	A	Internship	1. Be able to understand the meaning and connotation of educational internship, and understand the teacher's duties from the actual teaching situation. 2. Be able to acquire basic professional knowledge to prepare to serve as a teacher and have the ability to grow professionally. 3. Be able to understand the conditions for teacher selection examinations and actively prepare for relevant examinations. 4. Be able to discover and think about relevant issues in teaching situations, and gradually cultivate teachers' professional attitudes.	4	A	Teacher Education Center	SDG3,SDG5,SDG4
2023	1121	Master	1	T4E0187K	A	Processing of Marine Environmental Data	This course introduces the application software (including Excel and Matlab) and implementation of marine environment-related data. The Excel course part includes Excel basic operations, sequences and series, data tables, and charts; and the Matlab course part includes Matlab basic syntax, data input and output, statistical analysis, and drawing.	2	B	Department of Marine Environmental Informatics	SDG14
2023	1121	Bachelor	1	B92C81ZP	C	Yoga	Through Yoga Tis exercises, body muscles can be stretched and drawn into beautiful lines. During the learning process, students will be more aware of their body and posture, and adjust the correctness of the spine. Control your body with your breathing, stabilize your core muscles, and make your body posture more correct and healthy	0	A	Office of Physical Education	SDG3
2023	1121	Bachelor	3	B7203F64	A	Advanced Mechanics of Material	The object of this course is to introduce more advanced topics in mechanics of materials.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	2	B720224G	A	Applications of Micro-controller	Understand the basics of microcontrollers and be able to write microcontrollers programs. Acquire the ability to integrate microcontrollers in various applications.	2	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	1	E4A010DU	B	Radar Navigation, Radar Plotting and Use of ARPA	This course follows IMO Model Course 7.03-1.3 (Use of Radar and ARPA to Maintain Safety of Navigation) and Model Course 1.07, taking into account the teaching of relevant necessary knowledge and skills, and aims to achieve the following teaching objectives : Use of Radar and ARPA to Maintain Safety of Navigation.	2	A	Department of Merchant Marine	SDG4,SDG12,SDG8
2023	1121	Bachelor	2	B9502Y1N	A	Instructional Materials & Methodsfor Subjects of Food Science	1. Understand the current food group teaching activities and class management practices in higher vocational colleges. 2. Observe the teaching of related subjects on probation and analyze the procedures and steps of teaching activities. 3. Flexibly use teaching methods and strategies to design teaching plans and lesson plans. 4. Verify teaching principles or theories through simulated teaching experience. 5. Through self-reflection and joint discussion, try to establish your own teaching model.	2	H	Teacher Education Center	SDG4,SDG10,SDG5
2023	1121	Master	1	T4F010M0	A	EducationalResearchMethods	1. Understand the purpose and significance of educational research. 2. Familiar with the methods and steps of educational research. 3. Practice data search and follow research ethics. 4. Learn to review and demonstrate research literature. 5. Write a research project and understand the key to research quality.	3	A	Institute of Education	SDG4
2023	1121	Master	1	M5A01NNO	A	Electroacoustics	Nowadays, all kinds of information on 3C products and the internet are nothing more than images and sounds. The speakers are the ones that can reproduce the sound. Therefore, this course is to enable students to understand the characteristics of sound,auditory characteristics of the human ear, propagation of vibration and sound, the electric field, magnetic field and magnetic materials, sound energy conversion, parameter production of loudspeakers and micro loudspeakers. Finally, introduce the sound amplifier circuit and	3	B	Department of Systems Engineering and Naval Architecture	SDG8,SDG9,SDG11
2023	1121	Bachelor	3	B57030OI	B	Graph algorithms	To learn techniques for designing and analyzing graph algorithms	3	B	Department of Computer Science and Engineering	SDG4,SDG9
2023	1121	Master	2	T4I02711	A	Decision Analysis	Understand the concept of decision analysis, and further apply the management technology of decision analysis to explore research topics related to enterprises, shipping, air transport, and transportation management to assist individuals and organizations in making the best decision analysis.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Doctorate	2	D86023YU	A	Seismic Data Processing (III)	This course provides students about the theoy of ocean-bottom seismometer (OBS) data processing and application of OBSTOOL, RAYINV packages. Data processing will be emphasized at analyzing OBS data collected offshore Taiwan recently.	3	B	Institute of Earth Sciences	SDG4,SDG8,SDG9,SDG13,SDG14,SDG11,SDG7
2023	1121	Bachelor	1	B92G8G65	G	Weight Training	1. Cognitive domain (1)Understand the basic theory of weight training (2)Understand the operation of the equipment (3)Understand how to improve fitness by weight training 2. Psychomotor domain (1)Operate the weight training equipment correctly (2)Execute the physical training properly (3)Choose and execute the training method properly according to the goals	0	A	Office of Physical Education	SDG3
2023	1121	Bachelor	2	B7202H30	C	Dynamics	The purpose of this course is to enable the students to gain a thorough understanding of the description of position, displacement, velocity, and acceleration of particles or rigid bodies (kinematics). The concepts of the relationship between the applied forces and the kinemtatic behavior of the particles or rigid bodies are provided in this course (kinetics). Three methods are covered in the course, which include force and acceleration, work and energy, and impulse and momentum. The 3D kinematics and kinetics are also introduced in this course.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M7401D62	A	Seminar on Maritime Criminal Law	The goal of this course is to enable students to understand various types of maritime crimes, as well as the controversies or dilemmas they may face in basic criminal law theory, and to seek possible solutions.	2	A	Institute of the Law of the Sea	SDG4,SDG17,SDG10,SDG14,SDG16,SDG5
2023	1121	Master	1	T4601D62	B	Seminar on Maritime Criminal Law	The goal of this course is to enable students to understand various types of maritime crimes, as well as the controversies or dilemmas they may face in basic criminal law theory, and to seek possible solutions.	2	A	Institute of the Law of the Sea	SDG4,SDG10,SDG14,SDG16,SDG17,SDG11,SDG5
2023	1121	Bachelor	1	B92A8G08	A	Tennis (Inter Mediate)	1. Improve tennis skills 2. Enjoy the fun of tennis and enrich your leisure life	0	A	Office of Physical Education	SDG3

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2023	1121	Master	1	T4611H8Y	A	Seminar on International Law	The course is designed to develop knowledge and understanding of (1) the international legal system; (2) the main institutions which contribute to the development and application of international law; and (3) the legal rules, principles and processes which govern key areas of inter-state activities.	2	A	Institute of the Law of the Sea	SDG1,SDG4,SDG14,SDG17,SDG16
2023	1121	Doctorate	1	D6601E31	A	Matrix Analysis	The Matrix Analysis course deepens students'' grasp of matrix fundamentals, covering properties like determinants, eigenvalues, and the Jordan form. We''ll explore numerical methods, such as LU, QR, and singular value decompositions, emphasizing their computational relevance. The course highlights matrix applications in areas like linear algebra and differential equations. Students will study matrix functions and solving techniques, understand numerical stability issues, and tackle advanced topics like Krylov subspace methods. Practical application using tools like MATLAB or Python''s NumPy and SciPy or Mathematica is encouraged, along with engagement in current research and critical thinking.	3	B	Department of Marine Engineering	SDG1,SDG4,SDG2,SDG3,SDG5,SDG7,SDG17,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG6
2023	1121	Doctorate	1	D8101U93	A	Environmental Chemistry	The objectives of this course are to let students understanding the distributions and fates of chemical compounds in the atmospheric, underground and aquatic environments	3	B	Department of Marine Environmental Informatics	SDG6,SDG7,SDG14
2023	1121	Bachelor	3	B6A031CN	A	Research in Special Topics (II)	This course is mainly aimed at cultivating students' following abilities, hoping that the theory and practice of applied electrical technology can cooperate with each other and be confirmed. 1. Stimulate students' ability to explore problems and creative thinking. 2. Cultivate students' ability to solve problems independently and think logically. 3. Learn the basic skills and attitudes of applied electricity. 4. Strengthen data processing and analysis capabilities. 5. Train research report writing and presentation skills 6. Cultivate students' ability to create creative special projects. 7. Cultivate students' ability to work in teams.	1	B	Department of Marine Engineering	SDG11
2023	1121	Bachelor	2	B9502Y1R	A	Instructional Materials & Methods of Marine Science	1. Understand the current maritime teaching activities and class management practices of higher vocational colleges. 2. Observe the teaching of related subjects on probation and analyze the procedures and steps of teaching activities. 3. Flexibly use teaching methods and strategies to design teaching plans and lesson plans. 4. Verify teaching principles or theories through simulated teaching experience. 5. Through self-reflection and joint discussion, try to establish your own teaching model.	2	H	Teacher Education Center	SDG4,SDG5,SDG10
2023	1121	Bachelor	2	B9502Y2F	A	Teaching Methods and Materials of Electrical and Electronics Subjects	1. Understand the current teaching activities and class management practices of electrical and electronics groups in higher vocational colleges. 2. Observe the teaching of related subjects on probation and analyze the procedures and steps of teaching activities. 3. Flexibly use teaching methods and strategies to design teaching plans and lesson plans. 4. Verify teaching principles or theories through simulated teaching experience. 5. Through self-reflection and joint discussion, try to establish your own teaching model.	2	H	Teacher Education Center	SDG4,SDG5,SDG10
2023	1121	Bachelor	3	B6D03EMS	A	Marine Engineering Management and Safety	Let students understand the principle of marine Engines, knowledge of operation, safety protection, and requirements of international regulations	3	B	Department of Marine Engineering	SDG4,SDG9,SDG13,SDG8,SDG14
2023	1121	Bachelor	2	B6F02P48	B	Electrical Circuits	Circuit science is an important introductory subject for students in the Department of Marine Engineering to study motor-related courses. The concepts of circuit science will be used in subsequent electronics, electrical machinery, power systems, and even control theory. This course is intended to introduce circuit components and circuit analysis step by step, including DC analysis, AC analysis and network characteristic analysis. It is hoped that it can develop students' basic understanding and concepts about circuits and motor courses.	3	A	Department of Marine Engineering	SDG11
2023	1121	Bachelor	1	B92B81ZP	B	Yoga	Through Yoga Tis exercises, body muscles can be stretched and drawn into beautiful lines. During the learning process, students will be more aware of their body and posture, and adjust the correctness of the spine. Control your body with your breathing, stabilize your core muscles, and make your body posture more correct and healthy	0	A	Office of Physical Education	SDG3
2023	1121	Bachelor	1	E4111N38	A	Economics	Introduce the proper terms related to economics and let students understand the outline of individual economics and overall economics. Through this course, students can learn about the theory and practice of economics, as well as its applications in daily life.	3	A	Department of Shipping and Transportation Management	SDG8
2023	1121	Bachelor	3	E4103N77	A	Transportation Planning	1. Discuss the basic concepts of transportation planning. 2. Learn the research on transportation planning topics. 3. Cultivate students with the professional knowledge required by transportation planners through practical cases.	2	B	Department of Shipping and Transportation Management	SDG11
2023	1121	Bachelor	3	B71030DU	A	Radar Navigation, Radar Plotting and Use of ARPA	This course follows the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.3 (Use of Radar and ARPA to Maintain Safety of Navigation) and Model Course 1.07, taking into account the transfer of relevant necessary knowledge or skills, with a view to achieving the following teaching objectives: to enable students to understand the use of radar and ARPA in order to maintain the safety of navigation of ships.	2	A	Department of Merchant Marine	SDG4,SDG15,SDG17,SDG16,SDG14
2023	1121	Bachelor	2	B7102V78	A	Ship Compass	This course is developed in compliance with the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass Magnetic and Gyro. Nautical compass includes two series: magnetic compass and gyro compass The magnetic compass teaching focuses on the difference between the magnetic difference and the self-difference between the earth, the ship hull and the compass induced by the magnet, and then applies it to the correction and calculation of the ship's compass. Gyrocompass teaching focuses on the pointing principle of the gyrocompass, the structure of the gyrocompass, error calculation, and the relationship between it and other navigational instruments. This enables students to understand the overall structure of the ship.	2	A	Department of Merchant Marine	SDG4
2023	1121	Bachelor	3	B310345F	A	Biological Oceanography	The purpose of this course is to guide students to understand the distinctions between marine biological environments in the vast ocean and the characteristics of biotic and abiotic environmental factors in each zone. Through topic discussions, we will explore the role of various biological and non-biological environmental factors in the biological production process, as well as the correlation between the time, space, geographical distribution of organisms and changes in environmental factors.	2	A	Department of Environmental Biology and Fisheries Science	SDG13,SDG14
2023	1121	Bachelor	3	B71032HX	A	Introduction to bulk carrier	This course follows STCW Code chapter A-II/1, regulation A-II/1, International Maritime Organization (IMO) Model Course 7.03 MONITOR THE LOADING, STOWAGE, SECURING AND UNLOADING OF CARGOES AND THEIR CARE DURING THE VOYAGE, -2.1.1 The Effect of Cargo, Including Heavy Lifts on the Sea-worthiness and Stability of the Ship, and -2.1.2 Safe Handling, Stowage and Securing of Cargoes. The course takes into account the transfer of relevant necessary knowledge or skills, and attaches equal importance to theory and practice to achieve the following teaching objectives: 1. To enable students to understand the principles of loading, unloading and storage of bulk goods. 2. Enable students to understand the loading and unloading characteristics of bulk carriers. 3. Enable students to understand the impact of bulk carrier loading, unloading and storage on ship safety.	2	B	Department of Merchant Marine	SDG4,SDG13,SDG17,SDG14,SDG8

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2023	1121	Bachelor	3	B6803MIT	A	Marine Intelligent Transportation Systems	Introducing the concepts and practices of intelligent transportation systems, emphasizing the importance of planning and implementation in this course, so that students who take this course can not only acquire the basic concepts of intelligent transportation society (ITS), but also fully Understanding the actual operation of smart transportation systems. Cooperation is the new value chain of the Internet of Things. The Internet of Things is composed of communication networks, energy networks, and logistics networks. These networks work together in a single operating system and continue to find various ways to improve and support integrated production. These three networks are complementary and indispensable. Without communication capabilities, economic activities cannot be managed. Without energy, information cannot be obtained or transportation capabilities cannot be provided. Without logistics, economic activities cannot be managed. Promoting economic activities through the value ch	3	A	Department of Transportation Science	SDG1,SDG4,SDG8
2023	1121	Bachelor	3	B680318E	A	Air Cargo Management	This course is designed to cultivate students' basic concepts of air cargo. It starts with a systematic perspective and progresses to the air cargo management unit, allowing students to understand the connotation and practical situation of air cargo management.	3	B	Department of Transportation Science	SDG4,SDG8
2023	1121	Doctorate	1	D53014WM	A	Advanced Mobile Communication Technique	Let students be familiar with the fundamental principle and contents of advanced mobile communication technique	3	B	Department of Electrical Engineering	SDG3,SDG11,SDG14,SDG8,SDG4,SDG15,SDG17
2023	1112	Master	2	T4E023UN	A	GMT ocean-science mapping	Help students learn scientific drawing and help them write their papers	2	B	Department of Marine Environmental Informatics	SDG4,SDG13,SDG9
2023	1121	Bachelor	3	B7103K2B	A	Ship Handling	This course follows the International Maritime Organization (IMO) Model Course 7.03-1.8.1 Ship maneouvring and handling; Includes: 1.8.1.1 Turning circles and stopping distance. 1.8.1.2 Effect of wind and current on ship handling. 1.8.1.3 Maneouvres for rescue of person overboard. 1.8.1.4 Squat, shallow water and similar effects. 1.8.1.5 Proper procedures for anchoring and mooring. Taking into account the transfer of relevant necessary knowledge or skills, the following teaching contents are arranged. To enable students to understand the basic fittings and operating equipment of the ship, so that the operator can take the advantage of the equipment, characteristics or other means of the ship itself to maintain or change the state of movement of the ship for the purpose of carrying out the necessary observation, analysis, judgment, command, implementation, etc. for safe navigation under the conditions of the external environment at that time	2	A	Department of Merchant Marine	SDG1,SDG4,SDG12,SDG8,SDG14
2023	1121	Bachelor	3	B7103C06	A	Maritime Administrative Law	This course follows the International Maritime Organization (IMO) Model Course 7.03-3.1 Ensure Compliance with pollution of the Marine Environment & 3.6.1 Basic working Knowledge of the Relevant IMO Conventions concerning SOLAS and MARPOL specifications take into account the transfer of relevant necessary knowledge or skills, and the following course contents are arranged.	2	A	Department of Merchant Marine	SDG3,SDG8,SDG14,SDG17,SDG15,SDG4
2023	1121	Bachelor	3	B71030DU	B	Radar Navigation, Radar Plotting and Use of ARPA	This course follows the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.3 (Use of Radar and ARPA to Maintain Safety of Navigation) and Model Course 1.07, taking into account the transfer of relevant necessary knowledge or skills, with a view to achieving the following teaching objectives: to enable students to understand the use of radar and ARPA in order to maintain the safety of navigation of ships.	2	A	Department of Merchant Marine	SDG4,SDG14,SDG16,SDG17
2023	1121	Bachelor	3	B7103C06	B	Maritime Administrative Law	This course follows the International Maritime Organization (IMO) Model Course 7.03-3.1 Ensure Compliance with pollution of the Marine Environment & 3.6.1 Basic working Knowledge of the Relevant IMO Conventions concerning SOLAS and MARPOL specifications take into account the transfer of relevant necessary knowledge or skills, and the following course contents are arranged.	2	A	Department of Merchant Marine	SDG3,SDG4,SDG8,SDG15,SDG17,SDG14
2023	1121	Bachelor	3	B710331Q	A	Practice of Oil Tanker	In accordance with the specifications of IMO Model Course 7.03-2.1 Monitor the Loading and Unloading of Cargos and their care during the voyage., consideration will be given to the teaching of relevant necessary knowledge or skills. It enables students to learn the relevant knowledge of oil tanker cargo loading and the complete operation of oil tanker cargo load calculation practice.	2	B	Department of Merchant Marine	SDG4,SDG14
2023	1121	Bachelor	1	B7101I2Q	A	Basic First Aid and Medical Emergency-First Aid	Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	1	A	Department of Merchant Marine	SDG3
2023	1121	Bachelor	3	B7103C0A	A	Maritime Administration Law	In this module, there will be explanations on the basic rules of maritime administrative law and its authorities, applications, and amendments from the aspect of administrative law, including the relationship between national law and international conventions. It will also cover laws and regulations related to topics below: Inspections on ocean pollution and marine casualty. Salvage and towage. Inspections on foreign ships. Traffic inside port waters and aids to navigation. Management of pilot. Coast guards. Structure of maritime administrative departments in Taiwan.	2	B	Department of Merchant Marine	SDG14,SDG16
2023	1121	Doctorate	1	D89010YH	A	Low-dimensional Nanomaterials	Teach the latest development status of international low-dimensional nanomaterials, allowing students to understand the synthesis methods of various low-dimensional nanomaterials, structural analysis techniques, and the principles of optical, electrical, and magnetic physical properties of materials, and use practical examples to match them. Several practical participation activities allowed students to experience the technical application of synthesis and analysis of low-dimensional materials.	3	B	Department of Optoelectronics and Materials Technology	SDG3,SDG7,SDG6,SDG4
2023	1121	Doctorate	1	D8901P8E	A	Practical Transmission Electron Microscopy	Introduces the structure and imaging principles of scanning electron microscopes, as well as practical analysis applications in materials science.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B3203167	A	Molecular Biology	Objectives: Our objective is to provide a stimulating environment in which students can obtain: a) an in-depth understanding of the organization, replication and expression of the genetic material in prokaryotic and eukaryotic cells, b) an understanding of contemporary methods and approaches used in the analysis of gene structure and function, c) experience and confidence in applying this knowledge to solve new and interesting problems in molecular biology. --- ** The purpose of this course is intended fo	4	B	Department of Food Science	SDG4
2023	1121	Bachelor	2	B68020YW	B	Commerce Automation and Automated Identification	This is a course that explores the important development, application trends and related practical issues of commercial automation and automated identification, and helps students in the course obtain the international barcode manager certification. Since the start of the course in 2013, a total of 374 students have obtained the international barcode management certificate. Only 5 students failed to pass the management certification certification, which can effectively strengthen the students' future workplace advantages. In addition, starting from 2018, certificate certification for Internet of Things engineers has been added. So far, a total of 111 students have obtained Internet of Things engineer certification.	3	B	Department of Transportation Science	SDG9,SDG12
2023	1121	Bachelor	2	B6802K5F	A	Cargo Operation	This course mainly provides transportation students with the basic knowledge of cryogenic logistics.	3	A	Department of Transportation Science	SDG4

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2023	1121	Bachelor	3	B68031CP	B	E-Commerce and Logistics	This course will introduce basic concepts of E-Commerce (EC) and logistics and supply chain management under the EC environment. Through actual business case analysis, students will learn the practical use of EC and logistics / supply chain operations supporting EC. After completing this course, students should be able to understand EC and the relationship between EC and logistics / supply chain. Students are also expected to have the basic capability to plan and design EC logistics / supply chain model.	3	B	Department of Transportation Science	SDG1,SDG9
2023	1121	Doctorate	2	D74022I8	A	Selected Readings on Legal English (1)	Improve students' ability to read and understand English legal documents, increase their understanding of English legal vocabulary, and then understand how Japan, the United States, Europe and other countries solve certain international and domestic law issues and their thinking logic. It is hoped that students can think about how to use China's relevant laws When dealing with similar problems, will the process and results be different? It is hoped that in addition to improving students' English proficiency, they can also enhance their understanding of international law and foreign laws.	2	B	Institute of the Law of the Sea	SDG3,SDG4,SDG8,SDG11,SDG15,SDG16,SDG12,SDG10,SDG5
2023	1121	Master	1	M9A01ED3	A	Study on Educational Philosophy	1. Be able to understand the basic connotation of educational philosophy. 2. Be able to collect and understand information on topics related to educational philosophy and report learning experiences. 3. Be able to conduct special research and reports on selected educational philosophy research topics.	2	B	Institute of Education	SDG4
2023	1121	Bachelor	1	E4A01I3O	A	Fire Prevention and Fire Fighting	This course enables students to learn the basic knowledge and skills of fire prevention, fire fighting and safety in order to comply with the minimum competency standards for officers with function of controlling the operation of the ship and care for persons on board at the operational level required by Table A-II/1, Section II/1, Chapter II, STCW Code.	2	A	Department of Merchant Marine	SDG4,SDG12
2023	1121	Bachelor	3	B6A03N1H	A	Power Electronics Converters	1. Familiar with basic power electronic converter circuit analysis and high-frequency switching technology 2. Understand the application and development status of power electronics technology in various electric vehicles	3	B	Department of Marine Engineering	SDG9
2023	1121	Bachelor	1	B7101I2Q	B	Basic First Aid and Medical Emergency-First Aid	Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	1	A	Department of Merchant Marine	SDG3
2023	1121	Bachelor	2	B7102MC0	A	Basic Electronics	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass: Magnetic and Gyro and 1.1.6 Steering and Control System, taking into account the teaching of relevant necessary knowledge or skills. The following teaching content is arranged to enable students to understand commonly used ships. Basic principles and types of motors.	2	A	Department of Merchant Marine	SDG4
2023	1121	Bachelor	2	B7112437	A	Introduction to Civil Law	Introduce the law of life and make the law come to life.	2	B	Department of Merchant Marine	SDG1,SDG3,SDG4,SDG6,SDG8,SDG10,SDG12,SDG14,SDG17,SDG16,SDG15,SDG13,SDG11,SDG9,SDG7.SDG5.SDG2
2023	1121	Bachelor	1	B9E012G6	A	Introduction in Oceanic Cultures	The so-called "ocean culture" refers to all cultural phenomena and connotations related to the surface space of the "ocean". It includes at least the daily life, industrial economy and trade, scientific and technological inventions, population migration, community organizations, etc. related to the "ocean". Humanistic activities at various levels such as governance systems, cultural and educational activities, and value beliefs, as well as their origin, evolution, development, and even the context and pattern of interrelationships. Therefore, when "ocean culture" becomes a proposition, it also refers to the spatial pattern, relationship between man and land, social culture related to the ocean, as well as the collective experience and historical depth that constitute these humanistic connotations, and even includes the culture developed from it. Theoretical construction, etc. This course aims to cultivate students' understanding of marine culture from the perspectives of ocean awareness, ocean space, cross-ocean migration, sea-based livelihoods, human-sea interaction, etc., and further explore its connotation and think about the reappearance of ocean culture. The specific goals are: (1) Enhance people’ s understanding and awareness of the ocean. (2) Understand the spatial pattern of interaction between humans and the ocean. (3) Experience the humanistic characteristics of cross-ocean migration. (4) Discuss the relationship between man and land and the living world of making a living based on the sea. (5) Understand the rational activities and technological inventions of human interaction. (6) Creative ideas to reproduce marine culture.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG11
2023	1121	Bachelor	2	B3102ZYB	A	Introduction to the Technology of Fishery Information	To learn the science fundamentals, theory and its application which is major in fishery industry and other aids.	2	B	Department of Environmental Biology and Fisheries Science	SDG9,SDG13,SDG14
2023	1121	Bachelor	3	B3103L09	A	Fish Ecology	This course focuses on the basic knowledge of the relationship between the fish and the environment. Based on the knowledge, it will be helpful to apply the scientific management of fish farming, fishery resources, and marine environmental protection, fishery production in the future.	3	B	Department of Environmental Biology and Fisheries Science	SDG14
2023	1121	Bachelor	3	B3103E1I	A	Pelagic Fisheries	This course tries to introduce each pelagic fishery in Taiwan to enable students to understand the current status, surrounding problems, and fisheries management. Through the above learning content, literature discussion, and oral reporting to training and strengthen students'' ability to organize reports.	2	B	Department of Environmental Biology and Fisheries Science	SDG14
2023	1121	Bachelor	3	B31030PO	A	Case Study on Offshore and Coastal Fishery Resources	Teach students to understand the management, conservation and restoration of coastal fishery resources, arrange relevant industry-university exchanges to strengthen students’ practical application of industry-university, and lead students to complete relevant topics and case studies	2	B	Department of Environmental Biology and Fisheries Science	SDG2,SDG13,SDG14,SDG12,SDG4,SDG11,SDG8
2023	1121	Bachelor	3	B31031TM	A	Statistical methods and Application	Teach students to become familiar with the operation and application of computer statistical software and understand the basic theories of statistics including probability, sampling, distribution and testing, so as to cultivate students' practical ability in data analysis.	2	B	Department of Environmental Biology and Fisheries Science	SDG11,SDG12,SDG14
2023	1121	Master	1	M7401D12	A	Seminar on Maritime Law	1. Students should be able to understand and understand the relationship between my country’ s maritime law and relevant international conventions, practices or foreign laws, as well as the development trends of international maritime law. 2. Students should be able to correctly state the relevant provisions, basic theory and practice or doctrinal disputes of my country’ s current maritime law. 3. When students encounter relevant factual statements, they should be able to confirm the legal disputes caused by the facts, state the relevant regulations and principles, and explain why the regulations and principles can be applied to the facts, so as to resolve the legal disputes.	2	A	Institute of the Law of the Sea	SDG4
2023	1121	Bachelor	3	B5333P18	A	Lab for Electronics	Training the students in experiments and increaseing the understanding of electronics.	1	A	Department of Electrical Engineering	SDG4

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2023	1121	Doctorate	1	D66011YU	A	Advances in Mathematical Physics	The primary objective of the Advances in Mathematical Physics course is to equip students with a refined set of mathematical skills, enabling them to effectively address intricate challenges within the realm of physics. Through this course, we anticipate that students will not only master these sophisticated mathematical methodologies, ranging from partial differential equations to integral transforms, complex functions, tensor analysis, Green''s function and variational principles, but also adeptly apply these theories to tangible physical scenarios. This course places a particular emphasis on bridging the connection between mathematical theories and physical practices, aiming to cultivate students'' capacities for independent, critical thinking, and the adaptability to embrace and implement new mathematical strategies to meet the evolving demands of future physics research and applications .	3	B	Department of Marine Engineering	SDG1,SDG2,SDG3,SDG5,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG10,SDG9,SDG8,SDG7,SDG6,SDG4
2023	1121	Bachelor	3	B71034Y9	A	Practice of Ship Inspection	Based on The Law of Ships as a framework to introduce the ship inspection operations of administration authority of R.O.C, so as to understand how about the corresponding laws and regulations on ship operations, and cultivate the ability to integrate and apply other disciplines.	2	B	Department of Merchant Marine	SDG5,SDG12
2023	1121	Bachelor	1	B6811M97	A	Calculus	The objectives of this course are to provide a sound, intuitive understanding of basic calculus concepts for the students who pursue careers in business and engineering and to teach techniques of differential and integral calculus without sacrificing mathematical accuracy.	3	A	Department of Transportation Science	SDG4
2023	1121	Bachelor	1	B6811N38	B	Economics	To enable students to understand the relationship between economic activities, economic policies and financial markets, and to have the basic ability to analyze overall economic issues.	3	A	Department of Transportation Science	SDG3,SDG16,SDG8,SDG11,SDG9,SDG12
2023	1121	Master	1	M68010P8	A	Transportation Productivity and Efficiency Analysis	Introduces the concepts and methods of transportation performance evaluation, and provides legal full versions of free software for students to use on the spot to train students' practical operational analysis capabilities in academia and the transportation industry.	3	B	Department of Transportation Science	SDG8,SDG11,SDG12,SDG9
2023	1121	Bachelor	1	B310183P	A	General Physics Lab.	In conjunction with general physics teaching, students can gain a deep understanding of the physical principles taught in class through experiments, and develop students' practical abilities.	1	A	Department of Environmental Biology and Fisheries Science	SDG4,SDG7,SDG9,SDG14
2023	1121	Bachelor	1	E4A01MC0	A	Basic Electronics	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass: Magnetic and Gyro and 1.1.6 Steering and Control System, taking into account the teaching of relevant necessary knowledge or skills. The following teaching content is arranged to enable students to understand commonly used ships. Basic principles and types of motors.	2	A	Department of Merchant Marine	SDG11
2023	1121	Bachelor	2	B7202S42	B	Thermodynamics (I)	To introduce the properties and equilibrium states of a system, and the transformation of energy among different forms and engineering applications for different types of system.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG7,SDG13
2023	1121	Bachelor	2	E4A02C96	A	Oceanography	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.1.7 Meteorology. It takes into account the teaching of relevant necessary knowledge or skills, arranges the teaching content, and enables students to understand the physics and chemistry of seawater. There is a general understanding of the characteristics, seabed geology, topography, currents, waves, tides, sea ice, etc. as a basis for more in-depth courses in the future.	2	A	Department of Merchant Marine	SDG4,SDG14
2023	1121	Doctorate	1	D8911I38	A	Seminar	Establish an academic exchange platform and invite domestic and foreign experts and scholars to give special speeches. Students will discuss and interact with the speeches and practice questions, so that students can increase their exposure to different fields.	1	A	Department of Optoelectronics and Materials Technology	SDG4,SDG8
2023	1121	Doctorate	1	D89010KU	A	Semiconductor Manufacturing Technology	Learn basic semiconductor manufacturing processes.	3	B	Department of Optoelectronics and Materials Technology	SDG1,SDG12,SDG4
2023	1121	Doctorate	1	D89014MH	A	Special topics on advanced ceramics	This course first introduces the basic properties, composition, structure, process and material properties of advanced ceramics. Afterwards, the structure, preparation process, material properties and related applications of advanced ceramic materials such as boron carbide (B4C) and zirconium oxide (ZrO2) are systematically introduced.	3	B	Department of Optoelectronics and Materials Technology	SDG4,SDG9
2023	1121	Bachelor	1	B310183N	A	General Physics	In addition to enabling students to establish the basic concepts of physics and understand their development, they can also further use relevant knowledge flexibly.	3	A	Department of Environmental Biology and Fisheries Science	SDG4,SDG7
2023	1121	Bachelor	4	B310487C	A	Management of Marine Environment	The teaching goal of this course is to use the professional knowledge acquired in the past and the basic theory of marine environmental monitoring and impact assessment to understand the measures and methods for marine environmental protection and management.	2	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG14,SDG13,SDG11
2023	1121	Master	1	M310187Z	A	Special Topics in Marine Environmental Chemistry	This course focuses at the distribution and cycle in the marine environmental chemicals and the changes of marine primary production and nutrients. This course will let students understand the marine environment and chemicals.	3	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG13,SDG14,SDG11,SDG6
2023	1121	Doctorate	1	D81014SR	A	High Performance Computing and the applications of oceanic and atmospheric models	This course is to guide students about cluster, high performance computing (HPC), and their application to oceanic and atmospheric numerical modeling. Students will learn and operate the Linux-based cluster, perform and conduct the oceanic and atmospheric models, and modify the model scripts for ideal and actual cases.	3	B	Department of Marine Environmental Informatics	SDG4,SDG17
2023	1121	Master	2	T4J02OAM	A	Organization and Management	1. Understand the basic theories of management 2. Strengthen students' self-disclosure of management-related functions	3	A	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	1	E4N11410	D	English	The purpose of this course is to improve students'' English proficiency in vocabulary, listening and reading.	2	A	Institute of Applied English	SDG4,SDG14,SDG17,SDG15,SDG13,SDG8,SDG10,SDG11
2023	1121	Doctorate	1	D3311I38	A	Seminar	1. Collect and integrate scientific information 2. Real-time information indexing and sharing 3. Discussion of research results	1	A	Department of Aquaculture	SDG1,SDG2,SDG4,SDG8,SDG14
2023	1121	Master	1	M6801K5C	A	Container Transport Management	This subject is designed to provide professional study of the container transport management of liner shipping with respect to the international maritime business environment. This subject provides students with a full understanding of current developments in the liner shipping, and to enable them to understand the application of quantitative techniques in container transport management decision making. Studying this subject will also help develop students' global outlook, critical and creative thinking, entrepreneurship and leadership.	3	B	Department of Transportation Science	SDG1,SDG16,SDG4,SDG8,SDG14,SDG9,SDG3
2023	1121	Master	1	M7411807	A	German for Law Student	Understand basic German pronunciation, words and grammar. Understand basic German legal terms.	2	B	Institute of the Law of the Sea	SDG4,SDG17
2023	1121	Master	1	M6801NAN	A	Spatial Decision Making Methods	Methodology of the Spatial Decision Support and AI Systems (Spatial decision methodology) Methods of using space and time axis to discuss decision-making include multi-criteria decision-making (MCDM), fuzzy theory (FT), marine geographic information system (MGIS), artificial intelligence system development (AI SYSTEM), neural network (ANN), and time series analysis (TSA) Genetic Algorithm (GA) Chaos Theory (CHAOS) Data Mining (DM) Big Data Analysis (BDA)... and other methodologies and related software applications	3	B	Department of Transportation Science	SDG4,SDG9,SDG17
2023	1121	Master	2	M6812I38	A	Seminar	Cultivate students' ability to conduct research, present presentations, write papers and research reports; increase students' ability to think logically and use scientific methods to solve problems; and strengthen students' tolerance for frustration.	1	B	Department of Transportation Science	SDG1,SDG3,SDG4,SDG12,SDG10,SDG9,SDG5
2023	1121	Master	1	M89013BQ	A	Introduction of Novel Display Technology	ntroduction of the novel displays including LCD, AMOLED, 3D display, Head-up display, transparent display, and reflective display.	3	B	Department of Optoelectronics and Materials Technology	SDG1,SDG4,SDG8,SDG17,SDG12

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2023	1121	Master	1	M8911I38	A	Seminar	Establish an academic exchange platform, invite domestic and foreign experts and scholars to give special speeches, and students will make comments based on the speeches. Discussions, interactions, and practice questions enable students to increase their exposure to different fields.	1	A	Department of Optoelectronics and Materials Technology	SDG4,SDG8
2023	1121	Master	1	M890151Y	A	Fiber-Optic Communication Systems	Let students have a preliminary understanding of the evolution of optical fiber communications and the entire optical transmission system, and also understand the basic principles and applications of individual transmission, amplification and receiving components.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	2	B720208A	B	Engineering Mathematics (I)	This course aims to establish the mathematical ability of undergraduates in mechanical engineering. Fundamental concepts and examples for first and second order ordinary differential equations, Laplace transform, series solutions and vector analysis are introduced in the course.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	2	B720208A	A	Engineering Mathematics (I)	This course aims to establish the mathematical ability of undergraduates in mechanical engineering. Fundamental concepts and examples for first and second order ordinary differential equations, Laplace transform, series solutions and vector analysis are introduced in the course.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG9
2023	1121	Bachelor	2	B9E022GC	A	Ocean Writing and Myth	(1) Emotional aspect: In line with the school’ s teaching direction of developing “ocean” , we hope that by reading ocean writings and legends in Chinese literature, students can understand the emotions or life philosophy that Chinese literati have when facing the ocean. Think, and be able to apply the connotations learned to observe, think and emotionally experience one's surrounding marine environment, thereby cultivating the qualities of "Haida people with marine vision and humanistic care". (2) Cognition: Through the reading, interpretation, analysis and appreciation of the unique maritime writing (connotation and formal techniques) of Chinese literary works in different time and space, students can systematically understand the maritime writing of Chinese literature. The development of the literature and its writing characteristics will enhance students‘ appreciation of marine literature. (3) Skills: Although the course content is mainly "reading", it will be supplemented by "writing" training (writing written reports, writing in class) and "oral presentation" training (reporting on stage, designated delivery in class) , it is expected to improve students' reading ability, writing ability and oral presentation ability.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4,SDG14,SDG16
2023	1121	Bachelor	1	B9E01646	A	Marketing	1. Understanding the basic concept of marketing and future trend of the industry. 2. Fostering critical thinking and oral presentation via case studies. 3. Promoting teamwork and negotiation skills since all reports are group based.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG3,SDG8,SDG9,SDG7,SDG10,SDG12,SDG16,SDG17,SDG13,SDG11
2023	1121	Bachelor	2	B9E022TK	A	Consumer Psychology and Behavior	1. Understanding the basic concept of consumer behavior and psychology and future trend of the industry. 2. Fostering critical thinking and oral presentation via case studies. 3. Promoting teamwork and negotiation skills since all reports are group based.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG3,SDG17,SDG16,SDG13,SDG12,SDG11,SDG8,SDG10,SDG9
2023	1121	Bachelor	2	B93021HN	A	All-Out Defense Education Military Training-International Situations	This course mainly studies regional cooperation and conflict, and uses classroom lectures, special discussions, video viewing, etc. to achieve the following teaching objectives: 1. Cultivate students‘ independent thinking and analysis abilities. 2. Train students‘ information application and oral expression skills. 3. Strengthen students‘ legal concepts and moral education. 4. Enhance students‘ understanding of cultural soft power, and then participate in society and love the country.	2	B	the Student Affairs	SDG16,SDG17
2023	1121	Master	1	M9D01AEA	A	TEFL Methods and Materials	This course presents an overview of contemporary teaching approaches consolidated by SLA research and empirical classroom practices in the field of Teaching English as a Second/Foreign Language (TESL/TEFL). Knowledge of current theories, research, and practices in EFL teaching and learning presented in this course will lead you to arrive at your own personal conceptualizations of teaching. The major topics include teachers‘ beliefs, approaches to teaching, learner variables, curriculum design, assessment	3	B	Institute of Applied English	SDG4
2023	1121	Doctorate	1	D86011SI	A	Tectonics off Taiwan	Plate motion, tectonics and sedimentation off Taiwan are introduced in this course. The interaction among tectonics, seismicity and submarine resources (e.g., petroleum, gas and hydrate) are also investigated.	3	B	Institute of Earth Sciences	SDG4,SDG7,SDG8,SDG14
2023	1121	Bachelor	4	B310447Z	A	Ecotoxicology	Environmental toxics are increased with the development of industry and business. It is very important that to realize the toxics in marine ecosystem. This course introduces the toxics by human and nature. And those toxics affect the marine life and food chain.	2	B	Department of Environmental Biology and Fisheries Science	SDG2,SDG14,SDG4,SDG11,SDG6
2023	1121	Master	2	M68023AA	A	Database and Data Mining	This course introduces the basic theories, techniques, and application cases of databases and data exploration. In addition, through software operation and related journal paper research, students can understand related technologies and methods such as databases, big data management, data exploration, and artificial intelligence. Finally, students will be trained in basic data processing and data analysis techniques through case analysis and assignments, and will be able to apply these techniques to research in related fields such as transportation and logistics engineering.	3	B	Department of Transportation Science	SDG9
2023	1121	Bachelor	3	B3103U9L	A	Environmental Chemistry	The environmental pollution was more violent with human’ s activities. That’ s why we have to study the environmental chemistry. This course focus at the pollutant compounds, source, reactions and their effects to marine life.	2	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG13,SDG6,SDG14,SDG17
2023	1121	Bachelor	2	B7202H30	B	Dynamics	The purpose of this course is to enable the students to gain a thorough understanding of the description of position, displacement, velocity, and acceleration of particles or rigid bodies (kinematics). The concepts of the relationship between the applied forces and the kinemtatic behavior of the particles or rigid bodies are provided in this course (kinetics). Three methods are covered in the course, which include force and acceleration, work and energy, and impulse and momentum. The 3D kinematics and kinetics are also introduced in this course.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG9
2023	1121	Bachelor	2	E4Q01026	A	Personnel Safety and Social Responsibility	1 Knowledge: cultivation conditions and the ability to Hyundai Merchant Marine First rounds should possess. 2 Skills: Students will be able to operate the engine in a lifeboat after abandonment, the management of survivors and liferafts, rescue boat so the crew can be successfully cast in any environment, and effective use of communications and letters equipment. 3 attitude: a serious and responsible	2	A	Department of Marine Engineering	SDG9,SDG10,SDG12,SDG14
2023	1121	Bachelor	1	B7201NNX	B	Service-Learning Program-Campus Service (I)	Cultivate students'' virtues of responsibility, self-discipline, diligence, service, and mutual assistance and cooperation.	0	T	Department of Mechanical and Mechatronic Engineering	SDG4,SDG12,SDG8
2023	1121	Bachelor	2	B7202070	B	Engineering Materials	All engineering students must have the basic knowledge of the structure, properties, processing, and performance of various classes of engineering materials.	3	A	Department of Mechanical and Mechatronic Engineering	SDG3,SDG11,SDG13,SDG15,SDG14,SDG12,SDG8,SDG9,SDG7,SDG4,SDG6

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2023	1121	Bachelor	3	B7203T87	A	Fundamentals of Robotics	Robotics is a comprehensive discipline, including mechanisms, kinematics, dynamics, automatic control, microprocessors, programming languages, sensors, machine vision, image processing and other different fields. Each independent branch has become an important pillar of industrial automation. . This course mainly introduces the basic knowledge of industrial robots, including an introduction to various industrial robot architectures and their applications, basic theories (kinematics, spatial coordinate conversion, trajectory planning, dynamics, automatic control), offline simulation software, and articulated robot arms Special topics enable students to gain a general understanding of the main knowledge and key technologies required to develop robots. 1. Types and applications of robots 2. Spatial coordinate conversion 3. Position and speed analysis 4. Trajectory planning 5. Internship on articulated robot arm 6. Robot offline simulation	3	B	Department of Mechanical and Mechatronic Engineering	SDG3,SDG7,SDG8
2023	1121	Bachelor	4	B7204S39	A	Heat Transfer (Ⅱ)	This course is subsequent to the required course "Heat Transfer". Convection and radiation are the main subjects in the course. Students are expected to build up the following abilitis after taking this course: 1. Understand what is heat convection and be aware of the difference between forced convection and natural convection. 2. Be able to tell the physical meaning of each term in the convection governing equations. 3. Understand the phenomenon of the boundary layer and be able to use empirical equations for forced convection along a flat plate, cylinder, and sphere, and in a pipe. 4. Be able to analyze simplfied natural and mixed concetion problems. 5. Bea able to analyze simplified blackbody and gray-body thermal radiation problems.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B7202S42	A	Thermodynamics (I)	To introduce the properties and equilibrium states of a system, and the transformation of energy among different forms and engineering applications for different types of system.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG7,SDG13
2023	1121	Master	1	M67012E1	A	Fuzzy control application	Let students understand the knowledge of the fuzzy control systems include the fuzzy theory and fuzzy system real-world implementation. Besides explain the theory, both the simulation and experimental environment are installed to verify the effect of the developed fuzzy control systems.	3	B	Department of Communications Navigation and Control Engineering	SDG4
2023	1121	Bachelor	4	B6C042DZ	A	Fundamentals of Robotics	Introduction and implementation of robotic system	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Bachelor	1	E49014FR	A	Seminar on Constitutional Rights	01. By means of human rights issues for discussion, we may learn the scope and the limit of particular identity-related Constitutional rights. 02. To see, in the Internet age, kinds of newly emerging human rights and its content. 03. To help our students obtaining the relevant knowledge and cultivating the mind and law-abiding spirit in this class.	2	C	Office of the Academic Affairs	SDG4,SDG16,SDG5,SDG10
2023	1121	Bachelor	1	B9500Y57	A	Educational Philosophy	1. Be able to understand the connotation of education and philosophy and the relationship between them. 2. Be able to understand the basic connotation and factions of educational philosophy. 3. Be able to collect information on topics related to educational philosophy and report learning experiences. 4. Be able to use the connotation of educational philosophy obtained through learning to think about modern related educational issues.	2	H	Teacher Education Center	SDG4,SDG5
2023	1121	Master	1	T4E014XX	A	Global Climate Changes	This course will introduce the global climate system and the impact of climate change. By learning basic atmosphere-oceanography, applied geophysics, etc., we will gain an in-depth understanding of the key principles and physical processes of the current climate, as well as the effects of the atmosphere and ocean under climate change. Changes and representations, gradually understand the structure and latest research of the global climate system, and understand the climate changes in various regions around the world in recent years, and think about how to face the out-of-control greenhouse effect, global warming, extreme climate and other consequences caused by global climate change in the future. Intensified atmospheric and oceanic phenomena. By examining the major climate changes in each region, we connect them to the global environmental change issue.	2	B	Department of Marine Environmental Informatics	SDG4
2023	1121	Bachelor	2	E4Q02PGD	B	Proficiency in Survival Craft and Rescue Boat	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliances, and refers to the Model Course 1.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats and the 2010 Amendment Rules of the 1978 STCW International Convention. VI/2, the latest revised contents such as SOLAS international convention and LSA charter, taking into account the teaching of relevant necessary knowledge or skills, teaching students to understand and correctly operate and use lifeboats, rescue boats, life rafts, life jackets, immersion suits, life buoys, etc. Life-saving equipment, and familiar with the use of various survival communication equipment, distress signal transmission, first aid treatment of casualties, helicopter hoisting equipment and rescue methods, maintenance and inspection of lifeboats and rescue boats, as well as professional knowledge and experience in operating rafts in severe weather. Skills, and then master and control how individuals and all passengers on the ship can effectively avoid dangers under abnormal ship conditions, and cope with various difficulties in dangers, so as to achieve the purpose of self-rescue and rescue of others.	2	A	Department of Marine Engineering	SDG4,SDG8,SDG14
2023	1121	Bachelor	1	B9E112G7	A	Basic Design (I)	This course serves as the cornerstone of the Cultural and Creative Design program, aiming to help students grasp the principles of form composition. It covers essential design elements such as form, color, texture, and spatial relationships, integrating principles of visual design. Students will learn to manipulate points, lines, and shapes, practicing various techniques through hands-on exercises and sketching. The goal is to cultivate a solid foundation in design skills, preparing students for the application of three-dimensional composition in the following semester.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG9,SDG12
2023	1121	Bachelor	3	B9E0335B	A	Cultural Inventory Practices and Internships	1. Whether it is "top-down" cultural governance or bottom-up community building/place creation, one of the basis for formulating strategies is the results of cultural inventory, so we hope to use this course to let students understand culture The importance of taking stock. 2. Learn the method of cultural inventory. 3. The results of the cultural inventory can be smoothly transformed into cultural and creative elements of the 1072 special exhibition.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG8,SDG9
2023	1121	Bachelor	1	B9E11NNX	A	Service-Learning Program-Campus Service (I)	Through active engagement in service-oriented activities, students will cultivate a sense of care for the campus and develop a positive attitude towards serving others. This aims to foster a diligent, responsible, and earnest approach to school life among freshman students.	0	T	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Bachelor	3	B9E0339T	A	Cultural Creative Product Design Practice	The aim of this course is to cultivate practical thinking and skills in students, encouraging them to gain early exposure to the workplace, thereby enhancing their adaptability and competitiveness in professional settings.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4

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2023	1121	Bachelor	1	B7201ML1	B	Matlab Programming Language	MATLAB has many advantages compared with conventional computer languages for technical problem solving. These include (1) Ease of Use (2) Platform Independence (3) Predefined Functions (4) Device-Independent Plotting (5) Graphical User Interface Therefore, it is widely used in academia and engineering. If students learn this software as soon as possible, in addition to establishing a programming language foundation, there will be many benefits in the future to assist in academic study or work.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	3	B7203S60	A	Linear Algebra	Introduction to fundamental theorems of linear algebra, its computational methods and applications.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	1	B8901L6L	A	General Chemistry(I)	General chemistry is a basic course in life sciences and cross-fields. This course is intended to introduce and discuss the basic principles of general chemistry and its experimental methods from a wide range of angles in the first year of college, so as to lay a cross-field chemistry foundation for undergraduate students. .	2	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	2	B89022HK	A	Applied Electronics Lab.(I)	This course focuses on cultivating students' implementation and integration abilities. The first half of the semester starts with understanding commonly used electronic components, learning how to test their characteristics, and using their characteristics to design simple application circuits. In the second half of the semester, students began to use microcontrollers to combine electronic components, sensors, LEDs, etc., allowing students to try to build a complete system.	1	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B89022Q6	A	Photonics	Introduces basic knowledge about photonics, including: beam optics, wave optics, beam optics, Fourier optics, electromagnetic optics, polarized optics, statistical optics, photonic optics, light and matter, laser amplifier, laser, semiconductor optics.	3	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	1	B7211M97	A	Calculus	This course focuses on the understanding of basic mathematical concepts, to learn the ability of analyzing and solving problems, and to cultivate students the ability of learning advanced mathematics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG1,SDG3,SDG10,SDG4
2023	1121	Bachelor	4	B57040UF	F	Computer Projects (II)	This course is designed to provide important topics in bioinformatics and medical informatics. Students are able to learn about problems involved in the big data analysis of biological/medical data such as genomic sequences, protein structures, medical imaging, and National Health Insurance Research Database. The course is intended to provide good understanding of the commonly used algorithms in the analysis of genomic and medical data, and hands-on experiences with accessing and using relevant big datasets.	3	B	Department of Computer Science and Engineering	SDG4
2023	1121	Bachelor	2	B6802K5F	B	Cargo Operation	This course enables students in this department to understand the basic principles and understanding of ship cargo operations, as well as the characteristics of various types of ship cargo loading, and the impact of cargo loading on ship transportation.	3	A	Department of Transportation Science	SDG4
2023	1121	Bachelor	2	B6F0208A	B	Engineering Mathematics (I)	This course provides a comprehensive, thorough, and up-to-date treatment of engineering mathematics. It is intended to introduce students of engineering, physics, mathematics, computer science, and related fields to those areas of applied mathematics that are most relevant for solving practical problems. A course in elementary calculus is the sole prerequisite.	3	A	Department of Marine Engineering	SDG1,SDG6,SDG8,SDG10,SDG17,SDG16,SDG15,SDG14,SDG13,SDG12,SDG11,SDG9,SDG7,SDG5,SDG4,SDG3,SDG2
2023	1121	Bachelor	4	B510436F	A	Industrial Training (I)	Off-campus internships are mainly through on-site implementation in related industries to apply what they have learned and to cultivate students' professional talents that meet industry needs.	9	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG8,SDG4,SDG2
2023	1121	Bachelor	1	B9500Y51	C	Internship	1. Be able to understand the meaning and connotation of educational internship, and understand the teacher's duties from the actual teaching situation. 2. Be able to acquire basic professional knowledge to prepare to serve as a teacher and have the ability to grow professionally. 3. Be able to understand the conditions for teacher certification and teacher selection examinations, and actively prepare for relevant examinations. 4. Be able to discover and think about relevant issues in teaching situations, and gradually cultivate teachers' professional attitudes.	4	A	Teacher Education Center	SDG4,SDG8
2023	1121	Bachelor	1	B92B8G08	B	Tennis (Inter Mediate)	1. Improve tennis skills 2. Enjoy the fun of tennis and enrich your leisure life	0	A	Office of Physical Education	SDG3
2023	1121	Bachelor	3	E4G03D89	A	Financial Management	This course is aimed to learn financial theories and related practical issues in Finance. The contents of this course include three parts: corporate finance, investment, and financial institutions and markets.	3	A	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	3	E4103113	A	Risk management and shipping freight derivative in tranp shipping.	Explore the use of various freight derivatives (FFA's, Freight Futures, Freight Options, etc.) and other financial products in hedging and speculative operations in irregular shipping operations. Calculations and teachings based on examples from the perspective of financial management will enable students to Understand the importance and operation of related derivative commodities in tramp shipping operations.	2	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	1	E4H01089	A	Engineering Graphics	This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW for the Competence Marine Engineering at the Operational Level. (1). Let students know the basic Engineering Graphics (2). Let students know the application of Engineering Graphics.	2	A	Department of Marine Engineering	SDG4
2023	1121	Master	1	T4X013AN	A	Introduction of Food Safety Technology	Introduction to food safety technology and its application	3	A	Institute of Food Safety and Risk Management	SDG3,SDG11,SDG6
2023	1121	Master	1	M72012K7	A	Cutting and Joining Engineering	Learning Outcomes: Students should be able to: •Understand all essential elements required in completing a welding/cutting project. •Apply engineering knowledge to select proper welding/cutting processes, procedures and inspection methods for optimum welding fabrication. •Apply methods of engineering analysis procedures to quantitatively or qualitatively evaluate weld/cut quality. •Understand the effect of welding/cutting-induced issues on performance behavior of welded structures. •Perform engineering judgement to assist engineering decisions in welding/cutting projects. •Produce formal written project reports. •Work independently or as a team member to accomplish a welding/cutting project. •Have the opportunity to pursue advance welding/cutting engineering programs. •Have the appropriate knowledge to pass the AWS certification examinations to become a Certified Welding Inspector (CWI) and/or a Certified Welding Supervisor (CWS), or a Certified Welding Engineer (CWE	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9,SDG8
2023	1121	Master	1	M7201F73	A	Advanced Mechanical Vibrations	The purpose of this course is to enable the students to gain a thorough understanding of the advanced theories and applications of structural vibrations.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG9

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2023	1121	Bachelor	3	B7203T83	A	Manufacture Process	The objective of this course is to let students learn the basic knowledge on the manufacturing processes, including introduction, castings, metal forming, machining, joining and manufacturing system design, and possess the necessitated engineering knowledge and skills for servinag as a manufacturing engineer. This allow students with abilities for procuct forminq and machininq in their future career.	3	A	Department of Mechanical and Mechatronic Engineering	SDG8,SDG9
2023	1121	Bachelor	3	B7203T83	B	Manufacture Process	The objective of this course is to let students learn the basic knowledge on the manufacturing processes, including introduction, castings, metal forming, machining, joining and manufacturing system design, and possess the necessitated engineering knowledge and skills for servinag as a manufacturing engineer. This allow students with abilities for procuct forminq and machininq in their future career.	3	A	Department of Mechanical and Mechatronic Engineering	SDG9
2023	1121	Master	1	T4W0199H	A	Advanced Computer Networks	Introduction concepts and selected research topics on computer networks.	3	B	Department of Computer Science and Engineering	SDG4,SDG9
2023	1121	Bachelor	4	B72042K7	A	Cutting and Joining Engineering	Learning Outcomes: Students should be able to: •Understand all essential elements required in completing a welding/cutting project. •Apply engineering knowledge to select proper welding/cutting processes, procedures and inspection methods for optimum welding fabrication. •Apply methods of engineering analysis procedures to quantitatively or qualitatively evaluate weld/cut quality. •Understand the effect of welding/cutting-induced issues on performance behavior of welded structures. •Perform engineering judgement to assist engineering decisions in welding/cutting projects. •Produce formal written project reports. •Work independently or as a team member to accomplish a welding/cutting project. •Have the opportunity to pursue advance welding/cutting engineering programs. •Have the appropriate knowledge to pass the AWS certification examinations to become a Certified Welding Inspector (CWI) and/or a Certified Welding Supervisor (CWS), or a Certified Welding Engineer (CWE	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG9
2023	1121	Bachelor	4	B72042IV	A	Aerodynamics	This course introduces basic aerodynamic theories, which includes the fundamentals of air flow, aerofoil, aerodynamic performance, high-lift devices, low-speed aerofoil theory, high-speed aerofoil theory, aspects of aerofoil design, and flow control.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M57012TW	A	Core Technologies of IoT	Introduces the core technologies and advanced research topics of the Internet of Things to equip students with the ability to design and analyze Internet of Things application systems.	3	B	Department of Computer Science and Engineering	SDG4,SDG9
2023	1121	Master	1	M57011D1	A	Algorithm Design and Implementation	algorithm design methodology and complexity analysis	3	B	Department of Computer Science and Engineering	SDG1,SDG4,SDG10,SDG9,SDG5
2023	1121	Master	1	M57012TU	A	Optimization Theory and Applications	The goal of this course is to give students advanced knowledge of numerical optimization algorithms and computational experience using these algorithms in programming. Applications to different research areas are also learned through completing term projects.	3	B	Department of Computer Science and Engineering	SDG4,SDG5
2023	1121	Master	1	M57013ZN	A	Mobile broadband networks	In this course, we introduce 4GLTE/5G mobile network protocols, in particular in core network function modules. Current available 5G architecture such as SA (Standalone) and NSA (Non-Standalone) will be introduced. Additionally, cooperation between heterogeneous networks between LTE/5G an non-3GPP networks (such as WiFi) will be discussed.	3	B	Department of Computer Science and Engineering	SDG1,SDG4,SDG5,SDG10,SDG9
2023	1121	Bachelor	4	B33043AZ	A	Conservation and Management of Stream Ecology	1.Understand how stream ecology and stream’ s diversity 2.Understand stream of fish and the survey method of physical habitat 3.Learn the domestic and oversea ways to stream conservation and restored stream 4.Cultivate the ability to review the stream conservation effect 5. Propose a new opinion of stream conservation	2	B	Department of Aquaculture	SDG13
2023	1121	Bachelor	1	B6F010X7	B	Elementary First Aid	"Objective Successful completion of this course will enable any seafarer on a sea-going merchant ship to provide immediate basic medical care at the scene of an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care aboard.	1	B	Department of Marine Engineering	SDG3,SDG4
2023	1121	Doctorate	3	D3223I38	A	Seminar	1.To provide you with an opportunity to be acquainted with other graduate students 2.To provide you with trainings in how to assess the work from scientific papers and give constructive feedbacks 3.To provide you with trainings in how to present your own research, both in writings and orally	1	A	Department of Food Science	SDG4
2023	1121	Master	1	M8601W0A	A	Mineralogy	Teach the physical and chemical properties of basic minerals and advanced mineral identification methods and techniques, enrich theoretical knowledge and mineral collection and field identification capabilities, and cooperate with expert lectures and outdoor teaching to visit related industries.	3	B	Institute of Earth Sciences	SDG1,SDG8,SDG9,SDG4
2023	1121	Bachelor	4	B72041CF	B	Research and Practice in Special Topics	For specific topics, students are trained to have the following abilities: collect necessary research information, conduct actual design, assembly and operation, or use computer software to conduct simulation analysis, and compile research results and publish reports.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Master	1	M30014WH	A	Industrial Value Chain of Functional Value-Added Research and Development of Aquatic Products	The teaching objectives of this professional course aim to help students understand the value chain of functional enhancement research and development of aquatic products, including technical, market, economic, and environmental aspects. Through this course, students will be able to: (1) Understand the basic concepts and value-added technologies of functional enhancement of aquatic products, including knowledge of extraction, separation, purification, identification, and application. (2) Master the existing functional enhancement research and development technologies for aquatic products, such as the extraction and utilization of functional components such as polysaccharides, proteins, omega-3 poly-unsaturated fatty acids (PUFAs) such as EPA and DHA, and the development and application of new value-added technologies. (3) Understand the current situation and trends of functional enhancement aquatic products in domestic and international markets, and master market marketing strategies a	2	B	College of Life Sciences	SDG1,SDG3,SDG4,SDG9,SDG13,SDG15,SDG17,SDG14,SDG12,SDG8,SDG2
2023	1121	Master	1	T46011S1	B	Administrative Law - General Principles(I)	Introduction to basic theories of administrative law	2	A	Institute of the Law of the Sea	SDG7
2023	1121	Master	1	T4601I12	A	Seminar on the Law of State Responsibility and Compensation	Understand national responsibilities. In addition to state compensation liability, state liability also includes state loss compensation liability and state social responsibility.	2	B	Institute of the Law of the Sea	SDG13
2023	1121	Bachelor	1	B7101Z7W	B	Introduction to Coast Guard Law	To enable students to have a preliminary understanding of the relevant legal basis for the implementation of tasks by my country''s Coast Guard, security inspection and law enforcement guidelines, and to cultivate students'' basic knowledge of marine affairs laws and regulations. Make it possible to understand and apply basic practical issues when entering the sea patrol-related workplace.	2	B	Department of Merchant Marine	SDG8,SDG14

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2023	1121	Bachelor	2	B7202070	A	Engineering Materials	All engineering students must have the basic knowledge of the structure, properties, processing, and performance of various classes of engineering materials.	3	A	Department of Mechanical and Mechatronic Engineering	SDG9
2023	1121	Bachelor	2	B7202H30	A	Dynamics	The purpose of this course is to enable the students to gain a thorough understanding of the description of position, displacement, velocity, and acceleration of particles or rigid bodies (kinematics). The concepts of the relationship between the applied forces and the kinemtatic behavior of the particles or rigid bodies are provided in this course (kinetics). Three methods are covered in the course, which include force and acceleration, work and energy, and impulse and momentum. The 3D kinematics and kinetics are also introduced in this course.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	3	B72033WY	A	Introduction to Biomechanical Engineering	Provide an introduction to the basic principles and applications of Biomechanical Engineering which includes the orthopaedic biomechanics, dental biomechanics, motion analysis and assistive technology. Students will have the abilities of using the theory of Statics, Dynamics, Mechanics of Materials, Human Anatomy, and Physiology to analyze the problems of the mechanics of the human tissues and systems. The theories of Biomechanics can be applied to the fields of motion analysis of marine animals, mechanical design of assistive devices and bionic robotics, and sports analysis.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	4	B72041CF	A	Research and Practice in Special Topics	For specific topics, students are trained to have the following abilities: collect necessary research information, conduct actual design, assembly and operation, or use computer software to conduct simulation analysis, and compile research results and publish reports.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	3	B7203R9E	A	Logic Design	Enable students to understand the basic analysis and design pirnciples of Binary Logic System.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9,SDG11,SDG8
2023	1121	Master	1	M5701M6E	A	Introduction to VLSI Systems	1. Familiarizing students with the VLSI Design concepts 2. Preparing students for further pursuits in (Digital) Hardware system, VLSI System, VLSI / SoC implementation or research	3	B	Department of Computer Science and Engineering	SDG4,SDG9,SDG12
2023	1121	Bachelor	3	B89032UT	H	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG9
2023	1121	Bachelor	2	B89022HL	A	Thermodynamics of Materials(I)	The first, second and third laws of thermodynamics, thermodynamic auxiliary functions, statistical thermodynamics, unit system phase equilibrium.	3	A	Department of Optoelectronics and Materials Technology	SDG9
2023	1121	Bachelor	3	B89032UT	K	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4,SDG14,SDG9,SDG7
2023	1121	Bachelor	2	B89022CK	A	Electromagnetics (I)	Teach the physical principles and mathematical methods of electromagnetism and lay the foundation for students to learn optoelectronics courses.	3	A	Department of Optoelectronics and Materials Technology	SDG1,SDG4,SDG9,SDG10,SDG7,SDG3
2023	1121	Bachelor	3	B89032UT	P	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B89032UT	F	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B89032US	A	Optoelectronics and Materials Laboratory (II)	Learn commonly used experimental methods in materials science and technology	1	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	1	B890126M	A	Introduction to Materials Science (I)	This course mainly introduces the basic foundation of materials science and engineering. Students taking this course will learn about materials science training, explore the relationship between "material properties" and "structure", and use these "structure-property" relationships as the basis to "design" or "Manage" the structure of materials to complete materials engineering training.	3	A	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B89032UT	D	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B89032UT	C	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Doctorate	1	D090129L	A	Protozoe(I)	This course provides comprehensive concepts and knowledge of protistology and discusses its relationship with environments. Scientific articles are going to be read and discussed for the training of independent thinking and presentation.	3	B	Doctoral Degree Program in Ocean Resource and Environmental Changes	SDG4,SDG14,SDG15
2023	1121	Master	1	M5101982	A	Computational Fluid Mechanics	The goal of the course is to enable students to further understand the theory and methods of computational fluidity and learn to write programs related to computational fluidity. The course continues the foundation of "Introduction to Computational Fluid Force" and discusses the discretization of Navier-Stokes and related fluid equations, grid processing, finite volume method, solution of large matrices and some numerical processing methods of computational fluid force, etc., course Through the writing of relevant programs, students will hone their ability to apply programming language to numerical solutions in fluid mechanics. By studying papers, students will develop the habit of absorbing relevant knowledge on their own. Based on their personal interests and thesis topics, they will conduct in-depth study of relevant calculations. Flow force algorithm and solution details.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG14,SDG7,SDG9,SDG13,SDG6
2023	1121	Doctorate	1	D66011OS	A	Special Topics on Scientific computing	This course focuses on the numerical method and its use in the analysis of fluid dynamics, heat and mass transfer, and other related processes that occur in engineering equipment, in the natural environment, and in living organisms problems. Issues of accuracy, stability and convergence are addressed. Techniques for the solution of linear algebraic systems are presented for both structured and unstructured discretizations. The course involves hands-on code development as well as use of a commercial code	3	B	Department of Marine Engineering	SDG4
2023	1121	Doctorate	1	D5301195	A	Antenna Theory	This course aims to familiarize students with the basic characteristics of antenna elements and millimeter wave chip integrated design technology, and inspire students to learn knowledge and research related to radio waves through the study of the special properties of antennas.	3	B	Department of Electrical Engineering	SDG8,SDG9
2023	1121	Master	2	T4I02I73	A	Strategic Management	From the perspective of strategic management procedures, learners can apply various strategic management concepts to real situations.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Master	2	T4I02J7J	A	Distribution Management	1. To understand teh mearures of logistics 2. To know the system operational requirement of a logistics engineering 3. To own the knowledge of system maintenacne concept.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	1	B760137J	A	Fundamental Japanese	After learning the correct pronunciation of Japanese and hiragana and katakana, we will focus on basic sentence patterns, focusing on grammar and conversation. From noun sentences, adjective sentences and then verb sentences, learn simple daily life conversations from the simple to the deep and cooperate with daily idioms.	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG17
2023	1121	Bachelor	4	B7204J2B	A	Product Design and Development	This course introduce the knowledge from industry project development process to product structure development and design.	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG12,SDG9

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2023	1121	Doctorate	2	D8602I3P	A	Special Topics of Seminar (Ⅲ)	In the class, outside outstanding scholars will be invited to give lectures to introduce current research fields in earth sciences which led better introductions to the graduate students in progressing their thesis research in the institute.	1	B	Institute of Earth Sciences	SDG4,SDG7,SDG8,SDG13,SDG15,SDG14,SDG11,SDG6
2023	1121	Doctorate	1	D86011SF	A	Special Topics on Western Tropical Pacific Paleoclimatology	It is the goal of the course to provide graduate senior undergraduate students with an overview of current knowledge in the areas of earth environment, paleoceanography and paleoclimatology, and global climate change through oral reports and seminar discussions. In the event that any non-Mardrian speakers join the course, the course will be taught in English.	3	B	Institute of Earth Sciences	SDG7,SDG14,SDG11,SDG13
2023	1121	Doctorate	1	D3411I38	A	Institute Seminar	The main aims of this course are: (1) improving the scientific communication and presentation skills of students; (2) promoting the academic interactions within the institute. The students are expected to have good scientific presentation skills after taking this course.	1	A	Institute of Marine Biology	SDG4,SDG17,SDG14
2023	1121	Doctorate	2	D3412I38	A	Instituts Seminar	The main aims of this course are: (1) improving the scientific communication and presentation skills of students; (2) promoting the academic interactions within the institute. The students are expected to have good scientific presentation skills after taking this course.	1	A	Institute of Marine Biology	SDG4,SDG14,SDG17
2023	1121	Doctorate	1	D340144D	A	Biological Electron Microscopy Lab.	The purpose of this class is to train the students to be able to prepare electron microscope samples and to be familiar with the use of various related instruments, so that the students can independently perform electron microscopic experiments.	3	B	Institute of Marine Biology	SDG4,SDG14
2023	1121	Master	1	T4X014R2	A	ServSafe Certified Food Protection Manager Course	The principal roles of food packaging are to protect food products from outside influences and damage, to contain the food, and to provide consumers with ingredient and nutritional information. Traceability, convenience, and tamper indication are secondary functions of increasing importance. The goal of food packaging is to contain food in a cost-effective way that satisfies industry requirements and consumer desires, maintains food safety, and minimizes environmental impact. The goal of this course is to provide the necessary knowledge about food packaging.	2	B	Institute of Food Safety and Risk Management	SDG2,SDG3,SDG4,SDG12,SDG17,SDG9,SDG8,SDG6
2023	1121	Bachelor	3	B52032H8	A	Special Topic Research- A study on material properties of concrete	The goal of this course is to help students understand their own expertise and interests. Taking this course will help students engage in research work, familiarize students with research methods and implementation, and train students in their ability to search for information, conduct independent research, and write reports. Third-year and fourth-year students in this department who are interested in further studies or participating in the selection process of a research institute can use their spare time to conduct special research with the department's teachers. Before selecting courses, they must contact the instructor and determine the direction of the topic. The working time is arranged by the instructor. At the end of the semester, a research report must be submitted to the department office, and the instructor will evaluate the report and sign it. Those who pass the test will receive credits for this course. Through this course students can acquire the following abilities: 1. Ability to apply professional knowledge in river and sea engineering 2. Ability in experimental design, operation and data analysis 3. Ability to communicate and express	2	B	Department of Harbor and River Engineering	SDG11
2023	1121	Master	1	M30014WI	A	Advanced Circular Management in Agriculture, Fisheries, and Livestock	Adopting forward-looking and innovative approaches to managing the interrelated systems of agriculture, fisheries, and livestock, focusing on sustainability and circularity. This includes four main axes: (1) Understanding the concept of circular management and its application in agriculture, fisheries, and livestock. (2) Exploring innovative and sustainable practices for improving resource efficiency and reducing environmental impacts. (3) Analyzing case studies and best practices in circular management. (4) Developing the skills to design and implement circular agriculture, fisheries, and livestock management strategies.	2	B	College of Life Sciences	SDG11,SDG12,SDG14,SDG15
2023	1121	Bachelor	2	B93001IT	A	All-out Defense Education Military Training-Civil Defense	1. To enable students to understand the importance of national consciousness and the issue of our country’ s national identity. 2. Make students realize the importance and benefits of national defense. 3. To enable students to understand the relationship between economic development and national security, as well as the threats to my country's economic security. 4. Enable students to understand that culture is the basis for national identity, and the country’ s competitiveness can be enhanced through cultural soft power. 5. Enable students to understand the relationship between the non-traditional security threats faced by our country, Asia-Pacific security, cross-strait situations, and the current situation and national defense education. 6. Make students understand that the integration of military and civilians can achieve the goal of all-people national defense and implement the actions and results of all-people national defense. 7. Enable students to understand the rules of saluting, responding to salutes, titles, clothing and marching of soldiers, as well as the importance and regulations of guard duties. 8. Enable students to understand the significance and shaping basis of military discipline education, and have a complete understanding of the national military grievance system. 9. Enable students to understand the basic concepts of military law education, including the purpose and basic concepts of military law, the punishment law of the Army, Navy and Air Force, the criminal law of the Army, Navy and Air Force, etc., and to understand the military trial law, military legal services, gender equality and sexual harassment prevention; At the same time, the analysis and introduction of military law cases are used to guide students in appropriate behavior. 10. Enable students to understand the relationship between military discipline and national combat power, the essential requirements of military discipline, and understand the purpose and teaching practices of military law	2	B	the Student Affairs	SDG7,SDG16,SDG13,SDG14
2023	1121	Bachelor	3	B6803E7C	A	Air Transportation	Systematically introduces the main content and basic concepts of air transportation, allowing students to understand the control, legal restrictions, civil aviation policies and aviation industry development of the civil aviation industry, and then explore various air transportation issues in Taiwan.	3	B	Department of Transportation Science	SDG11
2023	1121	Master	1	M6701U20	A	Stochastic Processes	To understand basic probability and stochastic processes with applications toward communications.	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG9
2023	1121	Master	1	M6701D8E	A	Information and Coding Theory	How to measure information capacity How to compress information How to efficiently transmit information over noisy channels	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG8,SDG9

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2023	1121	Master	1	M9D014SB	A	Language Learning Anxiety	This course introduces students to research on language learning anxiety. We will discuss current trends and identify controversial issues most important to anxiety or apprehension arising from the learning and use of a second/foreign language (L2). One focus will be on understanding the relationship between anxiety and L2 achievement. An additional focus will be on exploring the potential role(s) of culture in moderating this relationship. To this end, we will discuss scholarly works dealing specifically with this relationship. Suggested papers for classroom discussions and presentations will be listed on the instructor’ s MOODLE (http://140.121.179.6/moodle). Classroom interactions and discussions via the MOODLE will be much emphasized throughout this course. Students completing this course are expected to gain a basic understanding of research on L2 anxiety. This understanding will benefit them should they wish to continue further studies.	3	B	Institute of Applied English	SDG1,SDG4,SDG10,SDG5
2023	1121	Master	1	M6701M2Q	A	Wireless Broadband Communications Techniques	This course is to provide various broadband techniques in the future wireless communication systems.	3	B	Department of Communications Navigation and Control Engineering	SDG9,SDG17,SDG11
2023	1121	Master	1	M6701R97	A	Digital Image Processing	To learn techniques of image processing, the principal approaches used in the digital image processing and their applications to related fields. In addition to understanding the basic principles, techniques and applications of image processing from the course, students can also learn and propose solutions to practical image processing problems through group learning, data collection, group discussions, and analysis. In addition, students can choose to study imaging topics individually or in groups, verify theoretical learning through simulation practice, and develop the ability to actively learn and solve practical problems.	3	B	Department of Communications Navigation and Control Engineering	SDG9
2023	1121	Bachelor	3	B330325X	A	Aquaculture Internship	Off-campus internships are designed to provide students with the opportunity to experience first-hand the various management and operations of breeding-related industry sites and research institutions in order to verify their daily classroom learning and achieve the effect of applying what they have learned.	3	B	Department of Aquaculture	SDG1,SDG17,SDG14,SDG12,SDG8,SDG9,SDG4,SDG11
2023	1121	Bachelor	3	B8903850	A	Modern Physics	This course provides the introductory basis of understanding modern physics; especially relativity and quantum physics.	3	A	Department of Optoelectronics and Materials Technology	SDG4,SDG9
2023	1121	Bachelor	4	B33041L6	A	Cultivation of Economic Seaweeds and Water Plants	This course mainly provides the basics of breeding and cultivation of marine algae and freshwater aquatic plants with economic value. The 21st century is the century of biotechnology. Biotechnology research related to seaweed and aquatic plants is booming. Taiwan is rich in seaweed and aquatic plant resources. With the development of seaweed farming technology and the market demand for aquatic plants, this course is introduced The current utilization status of economic aquatic plants, aquatic plant growth and development, production technology and processes, and the relationship between aquatic plants and the environment. Provide students taking the course with new options for future aquaculture species.	2	B	Department of Aquaculture	SDG14
2023	1121	Bachelor	3	B3303U06	A	Genetic Breeding	The teaching objects of this course are the third-year undergraduate students. For a broad understanding of the basic principles and statistical processing of genetics and breeding that can be applied to aquaculture, and to make students understand the importance of quantitative trait genetic selection and breeding in aquaculture.	3	A	Department of Aquaculture	SDG1,SDG8,SDG12,SDG14,SDG13,SDG9,SDG4,SDG2,SDG3
2023	1121	Bachelor	1	B5611M97	A	Calculus	It is hoped that students can learn from the complete basic mathematics knowledge of calculus how to use mathematical language to think, and establish the basic attitude and ability to complete analysis and solve problems according to correct theories and practices. --Based on the concept of limit, learn the concepts of characterization of functions, calculation of derivative functions and definite integrals; --Learn how to apply function characterization to solve application problems -- Understand how to apply integral theory to solve summation problems, calculation of common geometric quantities and other related problems -- And be able to learn the attitude of careful thinking and verification that is necessary in mathematical science	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4
2023	1121	Bachelor	3	B3B034E6	A	Analysis of gnome information using Linux commands	Guide students to use instructions to analyze genomes in the Linux environment Students must bring laptops	2	B	Department of Bioscience and Biotechnology	SDG2,SDG3,SDG10,SDG14,SDG12,SDG4
2023	1121	Master	1	M68012HC	A	Location Models of Logistics Systems	This course is a logistics/supply chain course which provides students the deep knowledge about supply chain issues and the training of the relevant methodologies for problem solving.	3	B	Department of Transportation Science	SDG11,SDG12
2023	1121	Master	1	M6811I38	A	Seminar	Cultivate students' ability to conduct research, present presentations, write papers and research reports; increase students' ability to think logically and use scientific methods to solve problems; and strengthen students' tolerance for learning setbacks.	1	A	Department of Transportation Science	SDG4
2023	1121	Bachelor	1	B9E012GB	A	Arts and Aesthetics	1. Introduction to the context and characteristics of art development, fostering basic artistic literacy. 2. Acquire vocabulary related to art and aesthetics, and develop basic skills to appreciate and critique artworks. 3. Understand the characteristics of art and aesthetic concepts in different periods, and apply them in professional design communication. 4. Through practical exercises in artistic creativity, explore the possibilities of different creative designs.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Bachelor	3	B9E0335C	A	3D digital product design	The course aims to cultivate students'' abilities and skills in 3D digital product design while exploring design strategies and innovation models for cultural and creative products. The content focuses on refining 3D digital design skills and applying theoretical methods in product design. Students analyze target markets, develop design strategies, and implement new product development processes within specified design themes. Ultimately, they create prototypes using 3D digital design and present their project outcomes. Through field research on designated design themes, students develop an appreciation for local cultural values, fostering critical thinking, innovation, and integrative thinking skills.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG9,SDG12
2023	1121	Doctorate	1	D340147Y	A	Biological Electron Microscopy	This course aims to acquaint the students with the theoretical basis of biological electron microscopy and the principles of the operation of various related instruments.	1	B	Institute of Marine Biology	SDG4,SDG14
2023	1121	Doctorate	1	D34011BY	A	Seminar on Invertebrate Immunology	Our current knowledge about immunology mainly comes from the study in vertebrates, however, since the invertebrates are the most abundant, diverse, and successful animals on earth, we should also learn the immunity in invertebrates. The purpose of this course is to acquaint the students with latest knowledge and development of invertebrate immunology, so that the students will have better understanding toward this novel and increasingly important study field.	2	B	Institute of Marine Biology	SDG2,SDG13,SDG14,SDG11,SDG3

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2023	1121	Bachelor	4	B5304U05	A	Integrated Circuit Engineering	1) Completely understand the differences between discrete circuits and integrated circuits. For example: in the same MOSFET small-signal amplifier, the bias load RD of the discrete one is different from that of the integrated one. This allows scholars to be competitive when investing in follow-up research or in the industry. The reason why miniaturization is successful lies in the principle of FinFET. 2) Understand integrated circuit related engineering such as nano-micron process, so that scholars can have a preliminary understanding when investing in integrated technology. For example, they know what are the key technologies of TSMC’ s 4-nanometer process, 12-inch wafer process, etc., so that they can successfully enter the industry. 3) Understand the basic integrated circuit technologies required for the current 5G generation in integrated circuits. 4) Introduction and design of NMOS integrated circuits and CMOS integrated circuits. 5) Understand CIC operating procedures and EDA functions.	3	B	Department of Electrical Engineering	SDG8,SDG9,SDG17
2023	1121	Bachelor	3	B32034KS	A	Microbial Technology and Engineering	Student will understand the methods and techniques of microbial engineering and the industrial development of microbial biotechnology	2	B	Department of Food Science	SDG4
2023	1121	Bachelor	1	E4A01P06	B	Electronic Navigation	This course provides the understanding of basic theory and practicing knowledge regarding electronic navigation equipment.	2	A	Department of Merchant Marine	SDG4,SDG14,SDG12,SDG8
2023	1121	Bachelor	3	B7103H6I	A	International Safety Management (ISM)	This course enables students to have a correct understanding of International Safety Management (ISM) and can realize IMO''s strategy of reducing human factors with ISM as the body, PSC as the form, and STCW as the use, hoping to increase the ability of ship safety management and meeting the requirements of shipping operational safety requirements in order to prevent marine accidents and reach the goal of ensuring the safety of life and environmental protection.	2	B	Department of Merchant Marine	SDG3,SDG16,SDG4,SDG12,SDG14,SDG13
2023	1121	Master	1	M6801E7V	A	Air Transportation Development	Systematically introduce important topics and basic concepts of the aviation industry, let students understand the theory of air transportation operation and management, and then improve the quality of domestic air transportation management decision-making, make the most efficient use of transportation resources.	3	B	Department of Transportation Science	SDG11
2023	1121	Doctorate	1	D7401I19	A	Seminar on International Fisheries Law	Conduct research on selected important topics and allow students to. In addition to understanding, there is the ability to conduct independent research.	2	B	Institute of the Law of the Sea	SDG16
2023	1121	Doctorate	1	D7401H6B	A	Seminar on International Criminal Law	Let students be practical. Have practical understanding of important issues.	2	B	Institute of the Law of the Sea	SDG16
2023	1121	Doctorate	1	D7401H80	A	Seminar on International Law (I)	To provide students with an in-depth understanding of selected important topics and the ability to conduct independent research.	2	B	Institute of the Law of the Sea	SDG16
2023	1121	Master	2	M74022I5	B	Commercial Law-Insurance Act, Company Act	To provide students with an in-depth understanding of important issues and the ability to conduct independent research on their own.	2	A	Institute of the Law of the Sea	SDG16
2023	1121	Master	2	T46021RX	B	Commercial Law-Insurance Act, Company Act, Act of Negotiable Instruments	To enable students to have an in-depth understanding of designated topics and the ability to conduct independent research on their own.	2	A	Institute of the Law of the Sea	SDG16
2023	1112	Doctorate	2	D7402095	A	Seminar on International Economic Law	Students then develop an in-depth understanding of important issues and the ability to conduct independent research.	2	B	Institute of the Law of the Sea	SDG16
2023	1112	Master	2	M74022DM	B	Securities Exchange Law and Regulations	There are important issues for students. Achieve in-depth understanding and have the ability to conduct independent research.	2	A	Institute of the Law of the Sea	SDG16
2023	1112	Master	2	T46022DM	B	Securities Exchange Law and Regulations	Some students have an in-depth understanding of the topic and have the ability to conduct independent research.	2	A	Institute of the Law of the Sea	SDG16
2023	1121	Master	2	T4X12I38	A	Seminar	Improve food safety and risk communication, scientific paper reading and writing, discussion and publication skills.	1	A	Institute of Food Safety and Risk Management	SDG4
2023	1121	Master	2	M9D024SC	A	Classical Mythology and Research	This course aims to help students experience and recognize the significant influences of Greek and Roman mythology over Western culture, especially as shown in fine arts and literature. In addition to reading myth stories and research articles, students need to practice story-telling ability through oral presentations and to express their own ideas and thoughts through academic writings, according to the instructor’ s requirements.	3	B	Institute of Applied English	SDG4,SDG10,SDG5
2023	1121	Bachelor	2	B9D023Z3	B	Classical Mythology and Arts (Intermediate)	This course aims to enhance students’ listening and reading skills of English by using different types of on-line sources. Each week in class, in addition to exploring numerous websites, students also need to try several on-line quizzes and games.	2	B	Institute of Applied English	SDG4,SDG16,SDG5,SDG14,SDG10
2023	1121	Bachelor	2	B9D024DN	A	English Grammar and Reading (High-Intermediate)	This course aims to promote students’ English reading proficiency (and meanwhile enlarge their vocabulary) by enriching students’ grammatical knowledge, specifically PARTICIPLE PHRASES (including ABSLUTES), RELATIVE CLAUSES (both restrictive and nonrestrictive) and NOUN CLAUSES. By the end of this course, through extensive reading, students are expected to be able to apply the English grammatical knowledge to their reading and writing.	2	B	Institute of Applied English	SDG1,SDG4
2023	1121	Bachelor	2	B3302L20	A	Ichthyology	Guide to understanding basic fish morphology, anatomy, ecology and evolution.	2	A	Department of Aquaculture	SDG4,SDG15,SDG14
2023	1121	Bachelor	2	B3302263	A	Aquatic Biology Lab.(I)	Teach practical courses on fish morphology, anatomy, classification, etc.	1	B	Department of Aquaculture	SDG4,SDG14,SDG15
2023	1121	Bachelor	1	B330145Q	B	Biology Lab. (I)	Through hands-on operations, observations and verification of life phenomena, biodiversity, and the relationship between organisms and the environment described in biology.	1	A	Department of Aquaculture	SDG14,SDG15
2023	1121	Bachelor	2	B3302L20	B	Ichthyology	Guide to understanding basic fish morphology, anatomy, ecology and evolution. 2021-9-28, starting from 10:20, 2B fish culture will be taught remotely via GOOGLE MEET. Please click on the link below to enter the course. https://meet.google.com/tyr-idzo-vhk	2	A	Department of Aquaculture	SDG4,SDG14,SDG15
2023	1121	Master	2	T4602640	B	Seminar on Administrative Law	1. To lay the foundation for students’ understanding of the phenomenon of modern administrative activities and the forms of disputes derived from them, and guide the formation of their awareness of issues. Under the intertwined thinking of legal theory and practice, interactive discussions will be used to promote students’ understanding of important issues in modern administrative law. Understand and systematically master. 2. Select specific cases from various administrative law fields for review. Through data collection, analysis and essay writing for special reports, students will be trained to discuss in depth and enhance their ability to explore and advance analysis of controversial issues in administrative law.	2	A	Institute of the Law of the Sea	SDG1,SDG2,SDG3,SDG8,SDG10,SDG12,SDG14,SDG16,SDG17,SDG15,SDG13,SDG11,SDG9,SDG7,SDG6,SDG5
2023	1121	Master	2	T430251Z	A	Optp-electric Fabrication Technology for Green Energy	This course is the core course of the Solar Photovoltaic Green Energy Program. It aims to enable the students of the school to have a deep understanding of the evolution of solar photovoltaic process and green energy, important theories and concepts, and their applications in other related fields.	3	B	Department of Electrical Engineering	SDG4,SDG7,SDG11
2023	1121	Bachelor	3	E4113661	A	Operation Research	This course is mainly aimed at teaching the theory and application of student homework research, so as to train students to use homework research theory to solve problems related to the fields of life management, financial management and decision analysis.	2	A	Department of Shipping and Transportation Management	SDG4

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2023	1121	Bachelor	3	B56033I9	A	Ocean Meteorological Observation Analysis and Application	The mastery of marine meteorological data is necessary for conducting coastal and marine engineering research or engaging in practical coastal and marine engineering planning and design, including the planning and design of harbor engineering, marine civil engineering, coastal protection, offshore wind power, marine energy and deep ocean seawater industries. and development, etc., we must first effectively grasp the operating conditions of the sea area such as wind, waves, tides, tidal currents and nearshore currents. The teaching objectives of this course mainly introduce the characteristics of the marine environment, such as observation planning of wind, waves, tides, tidal currents and nearshore currents, processing and analysis of observation data, and how observation results are applied to practical planning and design work. This course enables students to understand marine meteorology, understand its observation principles, methods and applications, and acquire basic observation planning abilities.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG14
2023	1121	Bachelor	3	B89032UT	Q	Independent Study(I)	Through this special study, students can synthesize what they have learned, study independently, work in teams, and develop their abilities in innovation, analysis, design, and practice.	1	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Master	1	T4Y014L7	A	Operations Research and Applications	This course provides students the basic knowledge of operations research. Using the operations research methods and skills learned in the class, students will be capable of analyzing and solving system problems in supply chain management.	2	B	Department of Transportation Science	SDG4,SDG7,SDG12
2023	1121	Bachelor	2	B9D023L4	B	Listening and Reading (Elementary)	Course Objectives: 1.To develop critical thinking and discussion skills. 2.To acquire deeper understanding of vocabulary and grammar. 3.To use successful reading and listening strategies. Attendance 25% Participation	2	B	Institute of Applied English	SDG4
2023	1121	Bachelor	3	B5603M55	A	Structure	This course teaches the principles of static structures such as beams, trusses, and frames, and introduces the analysis methods of axial force, shear force, and bending moment of such structures, and seek to help students developing knowledge and abilities in structural analysis.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG3,SDG16,SDG11,SDG8,SDG10,SDG9
2023	1121	Bachelor	3	B81034SN	A	Introduction to photogrammetry	Understand the basic concepts of aerial survey	2	B	Department of Marine Environmental Informatics	SDG5,SDG8,SDG11,SDG13
2023	1121	Bachelor	1	B5601L66	A	General Physics	In this course, students will learn the fundamentals of selected areas of classical physics by using the tools of algebra, trigonometry and calculus and have a good basis to learn the related courses.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG7
2023	1121	Master	2	M3412I38	A	Institute Seminar	The main aims of this course are: (1) improving the scientific communication and presentation skills of students; (2) promoting the academic interactions within the institute. The students are expected to have good scientific presentation skills after taking this course.	1	B	Institute of Marine Biology	SDG4,SDG14,SDG17
2023	1121	Master	1	M3411I38	A	Institute Seminar	The main aims of this course are: (1) improving the scientific communication and presentation skills of students; (2) promoting the academic interactions within the institute. The students are expected to have good scientific presentation skills after taking this course.	1	A	Institute of Marine Biology	SDG4,SDG14,SDG17
2023	1121	Doctorate	1	D660115W	A	Stochastic System Control	Understand stochastic programs and stochastic systems, and then understand the design methods of controllers and filters for linear stochastic systems.	3	B	Department of Marine Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B9D023X6	B	Learning English through Pop Culture (Intermediate)	The aim of this course is to provide a deeper understanding of popular culture and the English used to construct it. This will cover a wide range of material, from fashion, music to contemporary issues. Through a selection of readings, videos, and music we aim to practice listening and speaking skills, as well as gaining a deeper appreciation for how popular culture informs of modern existence.	2	B	Institute of Applied English	SDG3,SDG5,SDG10
2023	1121	Bachelor	3	B5703NB2	A	Introduction to Information Security	This course introduces the theoretical and practical basis of information security, combined with practical exercises, helps students identify information security threats and defenses, to establish a robust information security management and protection.	3	B	Department of Computer Science and Engineering	SDG9
2023	1121	Master	1	M860124W	A	Geophysics	1. To investigate the strata and crustal structure and their reservoir exploration 2. To analyze seismic and electromagnetic data by geoscientific softwares (RAYINV, Echos, SSMT2000) 3. To learn the basic theory of refraction, reflection and other geophysic exploration	3	B	Institute of Earth Sciences	SDG4,SDG7,SDG8,SDG15,SDG14,SDG11
2023	1121	Master	1	M86014MR	A	Paleontology and Carbonate Petrology	This course provides broad views on Paleontology and Carbonate Petrology to undergraduate and postgraduate students. Students will learn how to use the basic chemical limitations and conditions which affect formation of carbonate minerals and sediments. This knowledge enables interpretation of paleoenvironment and diagenesis of recent and older carbonates and carbonate rocks.	3	B	Institute of Earth Sciences	SDG4,SDG17,SDG15,SDG14,SDG13
2023	1121	Bachelor	1	E4111N24	B	Accounting	Accounting is a subject closely related to daily life, and it is also a skill that a corporate staff should possess. Its purpose is to faithfully provide accurate and useful financial information to decision-makers to help them make economic decisions. In addition, timely explanations and doubts regarding the revision of relevant laws and regulations will be provided. To enable students to acquire basic concepts and thinking so that they can use what they have learned in various management levels after entering the workplace.	3	A	Department of Shipping and Transportation Management	SDG8
2023	1121	Bachelor	3	B6803ML1	B	Matlab Programming Language	This course will introduce the use of MATLAB software. MATLAB has powerful mathematical operation and data analysis tools, graphics drawing capabilities, and is widely used in academia and industry. This course will allow undergraduate students to learn how to use computer programs and tools to help analyze mathematical and engineering problems in a simpler way.	3	B	Department of Transportation Science	SDG4
2023	1121	Bachelor	1	B56012TY	A	Introduction to Ocean Engineering & Technology	The purpose of this course is to conduct an in-depth and simple discussion on the scope of marine engineering technology, so as to provide freshmen with an understanding of the connotation of marine engineering technology and future research and development directions and solutions. It is hoped that through topic introductions and lectures, students will have the ability to The following abilities: 1. Understand the scope covered by marine engineering technology and related basic knowledge. 2. Understand contemporary issues and understand the importance of engineering technology’ s impact on the environment, ecology and society. 3. Understand the responsibilities engineers have towards society	2	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG13,SDG14
2023	1121	Master	1	M34013O6	A	Invertebrate Zoology	This course is for introducing the systematic classification of invertebrates, their anatomy, physiology and ecological relationships in the environment.	3	B	Institute of Marine Biology	SDG14,SDG15
2023	1121	Bachelor	2	B9D023L5	A	English for Meetings (Intermediate)	Meeting English is a must-have ability for all mid-level and senior-level managers, and it is an important learning course for cultivating the next generation of talents. This course uses real-life videos to enhance students' English learning; at the same time, TOEIC listening question banks will be played and TOEIC reading question banks will be distributed, allowing students to apply the conference English they have learned in TOEIC) preparation for the exam. All students who take this course will receive several imported question banks and audio files for the new TOEIC question types in March 2018 for free.	2	B	Institute of Applied English	SDG4

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2023	1121	Doctorate	1	D090134A	A	Case study in marine microplastics	This class covers aspects of marine microplastic problem from the fate and transport of plastics, impacts on marine organisms and human health to socio-economic and political issues.	3	B	Doctoral Degree Program in Ocean Resource and Environmental Changes	SDG6,SDG17,SDG15,SDG14
2023	1121	Bachelor	2	B9D023L4	A	Listening and Reading (Elementary)	Course Objectives: 1.To develop critical thinking and discussion skills. 2.To acquire deeper understanding of vocabulary and grammar. 3.To use successful reading and listening strategies. Attendance 25% Participation	2	B	Institute of Applied English	SDG4,SDG17,SDG5,SDG10
2023	1121	Master	1	M3401D41	A	Advanced Marine Biology	To strengthen the basic knowledge of marine biology and the latest research results and trends among our students. All teachers in our institute take turns introducing marine viruses, marine bacteria, fungi, protozoa, phytoplankton, zooplankton, benthic algae, invertebrates, fish and other marine vertebrates based on their respective expertise. Introduce its classification, ecology, life history, physiology, behavior, distribution, evolution and relationship with humans, etc.	2	A	Institute of Marine Biology	SDG4,SDG14
2023	1121	Master	1	M3411C15	A	Marine Biological Research Methods	This course is in conjunction with the demonstration and practical courses offered by our institute in "Special Courses in Marine Biology" and "Marine Ecology" and is taught by all teachers in our institute. The purpose is to enable students to have a preliminary understanding of commonly used marine biological research techniques and gain first-hand operational experience. The main contents include: identification and counting methods of various marine organisms, analysis and determination of physical and chemical factors in the environment, observation methods of animal behavior, computer simulation of ecology, and introduction to electron microscopy, etc.	1	A	Institute of Marine Biology	SDG4,SDG14
2023	1121	Bachelor	1	B5701V75	B	Discrete Mathematics	Discrete mathematics has critical applications in the field of computer science (such as algorithms, data structures, information security, etc.). This course aims to guide students in understanding the fundamental concepts of discrete mathematics, including set theory, logic, graph theory, combinatorics, number theory, and more. Once students have mastered these techniques, they can apply them to solving real-world problems through logical reasoning and proof skills.	3	A	Department of Computer Science and Engineering	SDG9
2023	1121	Doctorate	1	D5701I46	A	Seminar (I)	Understand the latest information research directions	1	A	Department of Computer Science and Engineering	SDG9
2023	1121	Master	1	M57013R6	A	AI in biology and medicine	Artificial intelligence (AI) has advanced modern biology and medicine. The goal of this course is to teach computational scientists and biomedical scientists the AI methods used in modern biomedicine. This course primarily focuses on the fundamentals of machine learning methods, which can be applied to biological and medical data.	3	B	Department of Computer Science and Engineering	SDG3,SDG8,SDG9,SDG4
2023	1121	Bachelor	1	B95013LI	A	Service learning	1. To understand the meaning of service and labor in life. 2. To experience the service opinions for teacher. 3. To share the experience and process of service learning.	2	H	Teacher Education Center	SDG11
2023	1112	Bachelor	1	E4Q01FAM	A	Elementary First Aid	This course is compiled and taught in accordance with the International Maritime Organization (IMO) Model Course 7.03-3.5 Apply Medical First Aid on Board Ship (refer to the regulations of Model Course 1.14 and STCW Chapter 6 A-VI/1-3). Necessary knowledge is complemented by the learning of practical skills.	2	A	Department of Marine Engineering	SDG3,SDG4
2023	1121	Bachelor	3	B56034XQ	A	Offshore Floating Structures	(1)To understand the hydrodynamic characteristics of offshore floating structures. (2)Introduction to typical mooring systems.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG7,SDG14
2023	1121	Bachelor	2	B95023XR	A	Teaching Materials and Methods of Science and Technology	1. Understand the current teaching activities and class management practices in the field of natural science in high schools. 2. Observe the teaching of related subjects on probation and analyze the procedures and steps of teaching activities. 3. Flexibly use teaching methods and strategies to design teaching plans and lesson plans. 4. Verify teaching principles or theories through simulated teaching experience. 5. Through self-reflection and joint discussion, try to establish your own teaching model.	2	H	Teacher Education Center	SDG4,SDG5,SDG10
2023	1121	Bachelor	2	B560236P	A	Physical Oceanography	It enables students to understand basic ocean physical phenomena, definitions and relationships, and introduces the background and current situation of the marine environment around Taiwan, thereby cultivating students' interest in marine meteorological science and ocean hydrodynamic simulation, and laying the foundation for future advanced courses in marine science. able. This course also encourages students to read professional English textbooks and improve their abilities of self-search and in-depth learning.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG4
2023	1121	Doctorate	1	D5301P0B	A	Electromagnetic Theory	This course provides a systematic and rigorous introduction to the theories and technologies related to the field of electromagnetic research. Based on these theoretical foundations, students who take higher-level electromagnetic courses in the future can quickly understand the content.	3	B	Department of Electrical Engineering	SDG4
2023	1121	Master	2	M35020AE	A	Special Topic on International Trade and and Production Specialization	The purpose of this course is to explore the relationship between international trade and industrial structure, and to analyze the dynamic effects of trade networks and industrial division of labor from the perspective of industrial agglomeration in the upstream, middle and downstream division of labor. In addition to focusing on the economic issues related to various industries, students will also strengthen their literature reading, paper report writing skills and expression skills.	3	B	Institute of Applied Economics	SDG4
2023	1121	Bachelor	2	B9502Y2W	A	Teaching Methods and Materials of Civil and Architecture	1. Understand the current civil engineering teaching activities and class management practices in middle schools. 2. Observe the teaching of related subjects on probation and analyze the procedures and steps of teaching activities. 3. Flexibly use teaching methods and strategies to design teaching plans and lesson plans. 4. Verify teaching principles or theories through simulated teaching experience. 5. Through self-reflection and joint discussion, try to establish your own teaching model.	2	H	Teacher Education Center	SDG1,SDG9,SDG4
2023	1121	Bachelor	1	B9D01968	S	English	Aiming to enhance students' English proficiency, the course is designed to cover the real life issues such as travel, business, athletes, culture and technology by using authentic materials and media. The content of each unit will be dedicated to the practice of four skills through lecture, group discussions, pair work, role-playing, and presentations, etc. with a view to developing students' critical thinking and expressing their perspectives in English.	2	A	Institute of Applied English	SDG4,SDG17,SDG16,SDG14,SDG11
2023	1121	Bachelor	2	B7102V78	B	Ship Compass	This course is developed in compliance with the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass Magnetic and Gyro. Nautical compass includes two series: magnetic compass and gyro compass The magnetic compass teaching focuses on the difference between the magnetic difference and the self-difference between the earth, the ship hull and the compass induced by the magnet, and then applies it to the correction and calculation of the ship's compass. Gyrocompass teaching focuses on the pointing principle of the gyrocompass, the structure of the gyrocompass, error calculation, and the relationship between it and other navigational instruments. This enables students to understand the overall structure of the ship.	2	A	Department of Merchant Marine	SDG4
2023	1121	Bachelor	2	B71024DD	A	Maritime talents cultivation Lecture	Let students understand the work practices on merchant ships, so as to shorten the gap between classroom teaching and practice, and prepare students for internships and work on ships.	2	B	Department of Merchant Marine	SDG17

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2023	1121	Master	1	M34013O5	A	Molecular Ecology	This course is for introducing how molecular techniques can be used to tackle various ecological questions.	2	B	Institute of Marine Biology	SDG7,SDG13,SDG14,SDG15
2023	1121	Bachelor	2	B6F02S47	B	Thermodynamics	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2. (1). To establish fundamental theory and theoretical concepts of thermodynamics, (2). To apply thermodynamics to engineering practices and solve relevant practical problems.	3	A	Department of Marine Engineering	SDG4,SDG7,SDG9
2023	1121	Master	1	T4I01E9F	A	Shipping Management Policy	This course aims to enable students to understand the operating and management principles of liner and tramper shipping companies; discuss shipping management policies and strategic issues from the perspective of shipping companies; familiarize themselves with important literature on shipping operations and management; discuss international shipping industry development trends and countermeasures.	3	A	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	2	B5602MGS	A	Marine Geographic Information Systems	1. Introduce the basic concepts and techniques of geographic information systems. 2. Explore the applications of geographic information systems in other fields and ocean engineering. 3. Train students to use geographic information systems for collecting, processing, analyzing, and visualizing geographic information.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG10,SDG11,SDG15,SDG14
2023	1121	Master	2	M73020ZS	A	Shipping and Logistics Technology Management	The course is designed to provide an understanding of the principles of maritime transport and it also provides the student with an array of techniques for improving efficiency in maritime transport. An effective supply chain must be configured to deliver customer value while also maintaining crucial cost advantages. To minimize system-wide costs, firms increasingly rely on new tools for modeling the full supply chain to integrate the firm’ s logistics and operations. This course introduces students to the concept of value-driven supply chains and its integration with manufacturing and process operations.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	1	B9501LI2	A	General Mathematics	1. Guide students to understand the connotation of the elementary school mathematics syllabus 2. Guide students to grasp the context of primary school mathematics textbooks 3. Improve mathematics teaching knowledge and teaching activity design capabilities through textbook analysis	2	H	Teacher Education Center	SDG4
2023	1121	Master	1	M5101953	A	Technical Writing in English	Provide graduate students with the tools to write graduation thesis, research report or journal conference paper in a concise and concise way. Required basic knowledge, writing principles and common sentence patterns, so that you can master the skills of writing English scientific and technological research reports as soon as possible Basic skills.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG8,SDG9
2023	1121	Bachelor	1	B9D01968	K	English	This course focuses on boosting students"" listening and reading. It covers not only everyday life conversation but workplace language. This would allow students to be used to confronting the real TOEIC tests necessary to get into the working world or the academic field.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	1	B9D01968	L	English	This course is to establish students'' fundamental skills and help them become efficient learners in reading and listening. They are also encouraged to build up an active learning attitude for pursuing ongoing advancement of English ability in an independent and effective manner.	2	A	Institute of Applied English	SDG3,SDG5,SDG4
2023	1121	Bachelor	1	B9D01968	Z	English	This course will focus on improving students’ English fundamental skills. Moreover, this course will help students develop flexibility in reading and listening rates as well as strategies for improving comprehension of English texts. Grammatical and vocabulary knowledge will also be addressed in this course.	2	A	Institute of Applied English	SDG4
2023	1121	Bachelor	1	B9D01968	T	English	This course is designed (1) to enable students to deal effectively with sophisticated reading materials, (2) to guide them in the development of conscious, reflective attitude toward reading, (3) to help them select the proper skills or strategies to solve each reading problem, and (4) to enlarge their English vocabulary.	2	A	Institute of Applied English	SDG1,SDG7,SDG13,SDG15,SDG14,SDG4
2023	1121	Bachelor	1	B9D01968	X	English	This course aims to help students build up their vocabulary bank and improve their listening and reading skills. Students are also expected to have a broader world-view after taking this course.	2	A	Institute of Applied English	SDG1,SDG3,SDG13,SDG5,SDG4
2023	1121	Bachelor	2	B7102MC0	B	Basic Electronics	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass: Magnetic and Gyro and 1.1.6 Steering and Control System, taking into account the teaching of relevant necessary knowledge or skills. The following teaching content is arranged to enable students to understand commonly used ships. Basic principles and types of motors.	2	A	Department of Merchant Marine	SDG11
2023	1121	Bachelor	3	B7103MC0	A	Electric Circuit Analysis	This course follows the International Maritime Organization (IMO) Model Course 7.03-1.1.5 Compass: Magnetic and Gyro and 1.1.6 Steering and Control System specifications, Taking into account the teaching of relevant necessary knowledge or skills, guiding students to become familiar with the professional knowledge of basic electricity.	2	A	Department of Merchant Marine	SDG4
2023	1121	Master	1	M35010Y3	A	Energy Economics and Sustainable Development	The aim of this course is to give students an overview of the demand for and supply of energy, price efficiency, sustainable development and environmental and policy issues. The topics covered may change slightly, due to time constraints and interest, but typical topics to be covered include: policy experience in energy and climate policies, energy demand and energy efficiency issues, power market systems.	3	B	Institute of Applied Economics	SDG1,SDG13,SDG15,SDG14,SDG12,SDG4,SDG7,SDG11,SDG9,SDG3
2023	1121	Master	2	M35024LO	A	world seafood market analysis and international trade	1.To provide students with important concepts of international trade 2.To analyze world fisheries situation and world market structure 3.To learn the procedures and basic practices of international trade 4.Improvement of English proficiency through whole English teaching	3	B	Institute of Applied Economics	SDG17
2023	1121	Bachelor	1	B7601I2O	A	Fire Prevention and Fire Fighting	To meet the madatory minimum requirement in Section A-VI/1 of STCW 1995 and the content of IMO Model Course 7.03 3.3	2	B	Bachelor Degree Program in Ocean Tourism Management	SDG17

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2023	1121	Bachelor	2	E4A02PST	A	Personal Survival Techniques	This course is in accordance with the specifications of the International Maritime Organization (IMO) Model Course 7.03-3.4 Operate Life-Saving Appliances, and refers to Model Course 1.23 and the 1974 SOLAS International Convention and the 1978 STCW International Convention 2010 Amendment Rules VI/2 No. 1- The relevant content of Section 4 takes into account the teaching of relevant necessary knowledge or skills, teaching students to recognize and understand the limitations of the marine environment and its possible risks, and at the same time become familiar with various professional knowledge and skills for survival at sea, and then master and control abnormal ship conditions. How can individuals effectively avoid the occurrence of crises and cope with various difficulties in crises in order to achieve the purpose of survival.	2	A	Department of Merchant Marine	SDG1,SDG3,SDG8,SDG9
2023	1121	Master	1	T4F010M0	B	EducationalResearchMethods	1.Students can understand the basic concepts of educational research. 2.Students can understand and use the different methods of educational research. 3.Students can write and present the dissertation proposal.	3	A	Institute of Education	SDG3,SDG10,SDG4
2023	1121	Bachelor	2	B31024SK	A	Marine Resources	Teach students to understand the ethnic characteristics, diversity, distribution and abundance of marine resources, and then cultivate concepts of marine resource conservation and future scientific research capabilities.	2	B	Department of Environmental Biology and Fisheries Science	SDG11,SDG14,SDG12
2023	1121	Bachelor	3	B56034WQ	A	Harbour Engineering	Learn the design codes and engineering methods that need to be considered when planning a harbor.	3	B	Bachelor Degree Program in Ocean Engineering and Technology	SDG4,SDG14,SDG9
2023	1121	Master	1	M32014SY	A	Special topics on genetically engineered food	1. Understand biotechnology and its core technologies 2. Understand the design concept of genetically engineered organisms 3. Understand the types of genetic foods 4. Understand the impact of genetic food on the food industry and people’ s livelihood 5. Understand the methods of detecting genetically modified foods 6. Understand the legal regulations on genetically modified foods	2	B	Department of Food Science	SDG1,SDG3,SDG4,SDG2
2023	1121	Bachelor	1	B92A8G1G	A	Rugby Football	1. Cognition (1) Understand the basic concepts and principles related to exercise and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to exercise. (2) Understand the relationship between exercise and healthy life, cultivate self-interest in exercise, and then develop regular exercise habits. (3) Understand the rules and common sense of various sports. 2. Skills (1) Develop various sports fitness and have the ability to engage in various sports. (2) Learn the basic movement methods and skills of various sports and become proficient in various sports techniques. 3. Affection (1) Ability to abide by rules, work as a team, and compete fairly. (2) Cultivate your temperament to appreciate the beauty of sports.	0	A	Office of Physical Education	SDG3
2023	1121	Bachelor	2	B7112191	B	Celestial Navigation	This course is 4 credits for the whole academic year, and is taught in two semesters with 2 credits each; the total study hours are 72 hours. Astronomy and navigation is the methodology of using celestial bodies - such as the sun, moon, stars, and planets - to determine a ship''s position or to calibrate a compass. Accordingly, the main content of this course is to introduce the principles and methodology of celestial body positioning, and focus on the intercept method (Intercept method) proposed by Commander Marcq de St.-Hilaire in 1872; Azimuth equations and other methods. This course will provide students with the most basic calculation frameworks such as "Complete Calculation of Sky Measurement" and "Proofreading Compass", and guide students to think in the process. It is hoped that based on this, new calculation methodologies can be proposed step by step.	2	A	Department of Merchant Marine	SDG3,SDG14,SDG17,SDG16,SDG4
2023	1121	Doctorate	1	D7301681	A	Research Method in Social Science	The design of this course focuses on cultivating students to conduct social science research and establishing students' ability to evaluate academic papers. Therefore, it does not intend to explore too much methodological foundation and theoretical content, but focuses on the research operation process, data analysis methods and the use of analysis tools. As well as issues that must be paid attention to when writing academic papers, students will have an understanding of research methods, so that they can think and judge academic research, and build the ability to engage in academic research.	3	B	Department of Shipping and Transportation Management	SDG4
2023	1121	Doctorate	1	D66014YA	A	Special Topics of Computational Fluid Dynamics	To introduce the student to widely used techniques in the numerical solution of fluid equations, issues that arise in the solution of such equations, and modern trends in CFD. Emphasis will be on ‘learning by doing’, as students will work on programming projects for assignments.	3	B	Department of Marine Engineering	SDG4,SDG8
2023	1121	Bachelor	2	E4112D08	A	Maritime Law	Maritime Law	2	A	Department of Shipping and Transportation Management	SDG10,SDG17,SDG14
2023	1121	Bachelor	1	E4D010FA	A	Introduction to Merchant Ship	To introduce the basic knowledge regarding merchant ships for the fresh students entering this department, and to make benefit for them to study professional courses of navigation during the follow-ing years.	2	A	Department of Merchant Marine	SDG1,SDG17,SDG14,SDG12,SDG8,SDG5
2023	1121	Bachelor	1	E4111M97	A	Calculus	To learn the techniques of differentiation (微分) for one variable and their applications.	2	A	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	4	B3104LA2	A	Population and Community Ecology	This course emphasizes population, community, and ecosystem ecology. The teaching goal is to make students aware of the interactions among species and the relationships between physical environment and biological community.	3	B	Department of Environmental Biology and Fisheries Science	SDG4,SDG14
2023	1121	Bachelor	2	B71020FB	A	Shipping Management	Maritime transportation is one of the most popular modes of global transportation, and the shipping industry plays an important role. It aims to enable students to understand the basic understanding of shipping industry practices, as well as the knowledge that should be possessed in the operation and management of the shipping industry.	2	B	Department of Merchant Marine	SDG8
2023	1121	Bachelor	3	B7103F06	B	Shipping Business	Shipping business is a further study of ocean transportation, allowing students to further understand the practices of transportation contracts, ship chartering, container transportation, cargo customs clearance inspection and notarization, and relevant international shipping regulations.	2	B	Department of Merchant Marine	SDG8,SDG12
2023	1121	Bachelor	1	B7101NNX	A	Service-Learning Program-Campus Service(I)	Cultivate students'''' maintenance of school campus cleanliness and service sentiment and mind for school teachers and students, and then expand to social and national service sentiment.	0	T	Department of Merchant Marine	SDG4,SDG5,SDG11,SDG6
2023	1121	Bachelor	4	B71043G3	A	Navigational Instruments & Integrated Navigation	The course will be planned according to the requirements of the International Maritime Organization Model Course (IMO Model Course) 1.32 - Operational Use of Integrated Bridge Systems (IBS), so that students can understand the necessary information of this specification and be able to operate it. Basic knowledge and skills of the system.	2	B	Department of Merchant Marine	SDG4,SDG14
2023	1121	Bachelor	3	B71031DU	A	Marine Communication and GMDSS	In comply with the STCW convention, this course follows IMO Model Course 1.25 (General Operator''''''''''''''''s Certificate for the GMDSS) lecturing the relevant knowledge of maritime communication, including the theory of GMDSS, to ensure that the trainees are capable of managing those equipments onboard ship with necessary skills.	3	A	Department of Merchant Marine	SDG4,SDG14

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2023	1121	Bachelor	2	B7102C96	A	Oceanography	This course complies with the specifications of the International Maritime Organization (IMO) Model Course 7.03-1.1.2 Terrestrial and Coastal Navigation and 1.1.7 Meteorology. It takes into account the teaching of relevant necessary knowledge or skills, arranges the teaching content, and enables students to understand the physics and chemistry of seawater. There is a general understanding of the characteristics, seabed geology, topography, currents, waves, tides, sea ice, etc. as a basis for more in-depth courses in the future.	2	A	Department of Merchant Marine	SDG4,SDG14
2023	1121	Bachelor	1	B7101D34	A	Marine Transportation	This course complies with the International Maritime Organization (IMO) Model Course 7.03-2.1 Plan and ensure safe loading, stowage, securing, are during the voyage and unloading of cargoes to allow students to understand: 1. Maritime transportation is the lifeline of the country 2. Maritime transportation Components of 3. Various shipping management methods 4. Shipping management strategies.	2	B	Department of Merchant Marine	SDG8
2023	1121	Bachelor	1	B92H8G07	H	Tennis (Beginner)	1. To enhance the fundamental skills and knowledge of tennis. 2. To encourage each student to pursue tennis as a life-time leisure activity.	0	A	Office of Physical Education	SDG5,SDG10
2023	1121	Master	1	M02014X1	A	A special section on the application of environmental hygiene to food safety	Introduction to environmental hygiene hazards and the relationship between environmental hygiene and food safety	3	B	Institute of Food Safety and Risk Management	SDG3,SDG15,SDG14,SDG6
2023	1121	Bachelor	3	B72031JX	A	Summer Internship	Cultivate students'' professional skills and practical experience, train the ability to explore and solve problems; cultivate teamwork spirit and professional ethics, learn to be dedicated, hard-working; increase students'' adaptability and competitiveness in the workplace	3	B	Department of Mechanical and Mechatronic Engineering	SDG1,SDG8,SDG3,SDG4
2023	1121	Bachelor	2	B9E024F6	A	Basic photography	1. Familiarity with the basic principles and operation of various types of cameras. 2. Understanding the differences between digital and traditional photography processes. 3. Practical exercises in portrait photography and mobile photography. 4. Incorporating concepts of visual psychology to enhance appreciation skills.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Bachelor	2	B6F02P48	A	Electrical Circuits	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2. Circuit science is an important introductory subject for students in the Department of Marine Engineering to study motor-related courses. The concepts of circuit science will be used in subsequent electronics, electrical machinery, power systems, and even control theory. This course is intended to introduce circuit components and circuit analysis step by step, including DC analysis, AC analysis and network characteristic analysis. It is hoped that it can develop students'' basic understanding and concepts about circuits and motor courses.	3	A	Department of Marine Engineering	SDG4,SDG11,SDG9
2023	1121	Bachelor	1	B6F11099	A	Work Shop Practice	Enhance the technical proficiency of senior seafarers to enable them to serve as watchkeeping officers on board and meet the minimum competency standards as required by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW CODE) A-III/1,2. (1) Let students understand the work method of fitter. (2) Use the processing technology learned to facilitate the processing of parts, and ensure that the processed parts can accurately achieve the required dimensional accuracy and assembly fit.	1	A	Department of Marine Engineering	SDG4,SDG9
2023	1121	Bachelor	2	B9E0238Y	A	Multimedia Interactive Technology and Application	1. Understanding the basics and differences between AR and VR. 2. Exploring the various applications of AR across different fields. 3. Hands-on instruction on operating FB Spark AR software. 4. Brainstorming marketing strategies utilizing Spark AR.	2	B	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Bachelor	2	B380260C	A	Organic Chemistry (I)	The goal of this course is to equip students with the basic theory and practical application of organic chemistry, introduced by structure, nomenclature, preparation, physical properties and chemical reactions.	3	A	Bachelor Degree Program in Marine Biotechnology	SDG4
2023	1121	Bachelor	1	B3801L6M	A	General Chemistry Lab.(I)	To enable students to learn the basic operations of chemical experiments	1	A	Bachelor Degree Program in Marine Biotechnology	SDG4
2023	1121	Bachelor	3	B68034SL	A	Marine Practice and Career Planning	This course will invite industry experts from a number of companies to teach about maritime industry practices and future career planning preparation links. It is expected to enable students to gain an early understanding of the current situation and development direction of the future job market through industry-university cooperation, and to conceive and plan self-study strategies. and future graduation development blueprint to achieve the goal of seamless integration of industry and academia with zero gap.	3	B	Department of Transportation Science	SDG4,SDG8
2023	1121	Doctorate	1	D66010CY	A	Numerical Methods for Differential Equations	The objective of this course is to introduce the fundamentals of modern numerical techniques for a wide range of linear and nonlinear elliptic, parabolic and hyperbolic partial differential equations to a wide variety of applications in science, engineering, and other fields.	3	B	Department of Marine Engineering	SDG4
2023	1121	Master	1	M89014X2	A	Surface Modification Technology and Material Analysis	Understand the corrosion status of the marine environment and the anti-corrosion measures for this environment.	3	B	Department of Optoelectronics and Materials Technology	SDG4
2023	1121	Bachelor	3	B7103FL1	B	Voyage Planning	This course aims to teach the importance of voyage planning, the relevant laws and regulations, assessment, practice, and precautions.	2	B	Department of Merchant Marine	SDG17
2023	1121	Master	1	M3C01I46	A	Seminar (I)	Train master students to build a comprehensive view of academic research by presenting articles published in international journals in English	1	A	International Master Program in Marine Biotechnology and Environmental Ecology Sustainability	SDG4,SDG14,SDG13
2023	1121	Master	2	M9A122JR	A	Seminar on Marine Subjects and Education	This course takes marine environment and climate change as the theme, with special lectures, covering the following topics: (1) Marine scientific research. (2) Marine culture and society. (3) Sharing of marine education middle school promotion practices. (4) Visit to the Marine Science Museum and Chaojing Park Looking forward to achieving the educational goals of being close to, knowing, and loving the sea.	1	A	Institute of Education	SDG3,SDG4,SDG6,SDG14,SDG13,SDG11
2023	1121	Master	1	T4501P9L	A	Seismic Hazard and Prevention Strategy For Strutures	This course mainly discusses the principles and techniques of structures to prevent earthquake disasters. First, we briefly describe the design principles of traditional earthquake-resistant structures, their earthquake disaster cases, and the dilemmas they face. Then, a complete discussion will be made on prevention technologies and design principles such as energy dissipation components, seismic isolation structures, and seismic reduction (control) structures. Finally, through the analysis of design cases, we can understand the mechanical behavior and scope of application of various earthquake disaster prevention technologies when an earthquake occurs.	3	B	Department of Harbor and River Engineering	SDG9
2023	1121	Master	1	T4F014WE	A	Special Topic on measurement and questionnaire design	Through the practice of questionnaire design, this course provides basic abilities and practical experience in test and questionnaire design. The basic ability part includes the concepts and strategies of test and questionnaire design and administration, handling of details such as questionnaire format sequence, processing and analysis of questionnaire data, and report writing. Design and complete a questionnaire and test based on the topics of concern and according to needs.	2	B	Institute of Education	SDG4

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2023	1121	Master	1	M3B014MC	B	Artificial intelligence in multidisciplinary health industry	Assist students in life sciences and other fields to become familiar with artificial intelligence technology and develop cross-disciplinary problem-solving skills	2	B	Department of Bioscience and Biotechnology	SDG1,SDG9,SDG4,SDG3
2023	1121	Master	1	T4F023MY	A	Special issue on moral education	1.understanding the implication and significance on moral education 2.discussing teaching methods on moral education 3.practicing moral education into school education	2	B	Institute of Education	SDG4,SDG16,SDG12,SDG10
2023	1121	Master	2	T4F122JR	A	Seminar on Marine Subjects and Education	This course takes marine environment and climate change as the theme, with special lectures, covering the following topics: (1) Lectures on marine science, culture and society. (2) Sharing of marine education middle school promotion practices. (3) Visit to the Marine Science Museum and Chaojing Park Looking forward to achieving the educational goals of being close to, knowing, and loving the sea	1	A	Institute of Education	SDG3,SDG14,SDG6,SDG11,SDG13,SDG4
2023	1121	Bachelor	1	B9E012G9	A	Introduction to cultural and creative industries	The purpose of this course is to cultivate students'' understanding of the cultural and creative industries while encouraging them to contemplate their own positioning and development strategies within the current trends and future directions of the cultural and creative industry. Starting from theoretical foundations and integrating real-life case studies, this course will explore domestic and international models of cultural and creative industry development, as well as strategies for cultural and creative product design. Additionally, it will analyze cultural and creative industry policies and environments, aiming to foster students'' sense of identification with local cultural values. Ultimately, the course seeks to develop students'' critical thinking skills and their ability for innovation and integrative thinking	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Doctorate	1	D7401I19	B	Seminar on International Fisheries Law	1. To enable students who take this course to understand the importance of the ocean to human survival. The ocean provides climate regulation around the world through wind and currents, provides fresh water through rainfall, and is rich in fish resources, which is the main source of protein for many people around the world. 2. For a long time, most humans have believed that the fishery resources in the ocean are inexhaustible. Therefore, the international law of the sea only regulates the fishing rights of various countries in various types of sea areas, and did not foresee that marine biological resources also need to be conserved. maintain. After the Second World War, mankind's shipbuilding, navigation and fishing technologies have greatly improved, and the number of fishing has increased rapidly, resulting in overfishing in some sea areas. Therefore, at the first United Nations Conference on the Law of the Sea in 1958, countries began to conduct preliminary cooperation and try to Protect high seas fishery resources, but the effect is quite limited. 3. Beginning in the 1960s, colonies in Asia, Africa and Latin America became independent one after another and joined the international community, demanding modifications to the international law of the sea rules to enable emerging countries to exercise greater management and use rights over fishery resources in adjacent waters. Therefore, the United Nations Third Law of the Sea The conference began in 1973. After nine years of negotiation and compromise, various countries finally reached the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which significantly overhauled the international law of the sea and incorporated many emerging systems. It also brought significant changes to international fishing rules. Change. 4. One feature of UNCLOS is that fishing and conservation rules are formulated separately in different areas such as territorial waters, exclusive economic zones and high seas. Another feature is that for certain specific fish species - such as cross-border fish species and highly migratory fish species Establish fishing and conservation regulations respectively for marine mammals, anadromous spawning fish species and downriver spawning fish species. These two methods are certainly an improvement and have produced some conservation effects, but they still have major shortcomings, that is, the movement of fish schools ignores artificial sea boundaries, and the reproduction and survival of fish schools depends on the soundness of the entire marine ecology, so only zoning and Conservation measures targeting specific fish species still cannot prevent the depletion of fish stocks. 5. After the formulation and implementation of UNCLOS in 1982, international fishing rules continued to develop towards strengthening conservation, formulating various hard laws (treaties and agreements) and soft laws (resolutions of international organizations), introducing marine ecological protection and taking preventive measures, etc. , placing global fisheries under the responsible norms of bilateral and multilateral cooperation, and at	2	B	Institute of the Law of the Sea	SDG12,SDG2,SDG5,SDG9,SDG11,SDG10,SDG8,SDG4,SDG1,SDG14,SDG17
2023	1121	Bachelor	4	B51041J1	A	Internship	Internships are mainly conducted in domestic shipbuilding industry and related engineering companies, such as the following companies: 1. Longde Shipbuilding Industry Co., Ltd. 2. Ye Dacheng Shipbuilding Technician Office 3. Corporate shipbuilding and marine industry research and development center 4. Jiahong Yacht Co., Ltd. 5. CITIC Shipbuilding Co., Ltd. 6. Prajna Technology Co., Ltd. Internships are mainly conducted during the school summer vacation through on-the-spot practice in related industries to apply what they have learned and to cultivate students' professional talents that meet industry needs	2	B	Department of Systems Engineering and Naval Architecture	SDG1,SDG4,SDG8,SDG2
2023	1121	Bachelor	1	B92B8G0C	B	Aerobics Dance	1. Learn various basic high and low impact aerobic movements 2. Learn high-low impact aerobic combination movements 3. Learn to design high-low impact aerobic combination movements and performances 4. Learn the basic aerobic movements of boxing 5. Learn boxing aerobic combinations 6. Cultivate teamwork spirit	0	A	Office of Physical Education	SDG3
2023	1121	Master	1	M7401I12	A	Seminar on the Law of State Responsibility and Compensation	1. Assist students to understand the inherent meaning and basic legal principles of the state liability system, the state compensation system and the loss compensation system, become familiar with the main structure and specific connotation of China's current legal system, and master the partial amendments to the 2019 State Compensation Law, and at the same time understand Through the analysis of important cases, we can grasp the relevant practical development trends in recent years, guide students to explore relevant legal issues and the basic abilities to try to solve them, and grasp the practical development trends in recent years. In this period, under the intersection of legal theory and practice, interactive discussions will be used to promote students' understanding and systematic mastery of today's important issues such as state compensation and loss compensation. 2. Select important specific cases for research, analysis and review. Through data collection, analysis and essay writing in group special reports, students will be trained to have in-depth discussions and enhance their exploration and ability to analyze current legal issues related to national compensation and loss compensation. Advanced research capabilities	2	B	Institute of the Law of the Sea	SDG1,SDG3,SDG5,SDG10,SDG12,SDG16,SDG13,SDG11,SDG8,SDG7,SDG6

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2023	1121	Master	1	M74011RW	B	Criminal Law-General Principles	This course will teach students systematically through systematic content and explanations with examples, so that students can understand many abstract principles and theories of the general principles of criminal law.	2	A	Institute of the Law of the Sea	SDG3,SDG5,SDG10,SDG16
2023	1121	Master	2	M9D024SA	A	English for Specific Purposes	This course intends to provide students with a comprehensive introduction to a learner-centered approach—English for Specific Purposes. In this course, students will learn the basic tenets of ESP, and develop their skills to analyze the needs of target learners, design ESP course activities, evaluate ESP materials, and make effective assessment. This course is recommended for students who want to work and/or teach in in all kinds of professions.	3	B	Institute of Applied English	SDG4,SDG10
2023	1121	Bachelor	2	B6F02H30	B	Dynamics	1. Establish the basic concepts of dynamics and the application of mathematical analysis capabilities in engineering, and lay the foundation for subsequent study of mechanics, mechanical design, fluid mechanics and other related advanced courses. 2. This course aims to meet the mandatory minimum knowledge, understanding and proficiency in Table A-III/1 of STCW 95 regarding operational level competencies in marine engineering and Table A-III/2 regarding mandatory requirements for management level competencies in marine engineering. requirements for knowledge, understanding and proficiency in Table A-III/1 and Table A-III/2 of STCW 1995 for the Competence Marine Engineering at the Operational Level)	3	A	Department of Marine Engineering	SDG4
2023	1121	Bachelor	1	B95013LH	A	Vocational education training and career development	According to the provisions of Taiwan Teachers (2) Letter No. 1060076930 issued by the Ministry of Education on June 1, 2020, starting from the 2015 academic year, in accordance with the amendments to the Technical and Vocational Law, "vocational education and training" and "career planning" related courses are listed as Compulsory credits for pre-service teacher education courses. The Teacher Training Center of our school merged these two courses into Vocational Education Training and Career Planning (1 credit) in the 108th academic year. Through course introduction, teacher trainees can understand the application of vocational education training and career planning in the field of education. In the early stage, teacher trainees will have the ability and concepts to educate students for diversified further studies. 2. Course Objectives 1. Understand the concept and system of Vocational Education and Training (VET) 2. Understand the purpose and methods of career planning 3. Experience the teaching methods of different types of education systems 4. Possess the concepts and teaching abilities for diversified further studies 5. Have career development and career consulting application capabilities 6. Understand the system and application of Career Development Advisor (CDA)	1	H	Teacher Education Center	SDG4
2023	1121	Master	1	M9A01LN1	A	Special Topic on The Learning Organization	(1)Understand the concept of leaning organization. (2)Understand the implication of learning organization. (3)Implicate learning organization into education field (4)Build up your own learning organization	2	B	Institute of Education	SDG4
2023	1121	Doctorate	1	D8901T22	A	Welding Metallurgy	Welds may consist of different kinds of defects. To prevent defects in the weld, the fracture mechanism of the weld including hot crack and cold crack needs to be understanded clearly.	3	B	Department of Optoelectronics and Materials Technology	SDG9
2023	1121	Bachelor	1	B92N8G04	N	Badminton (Beginner)	A.Cognition 1.Understand the basic concepts and principles related to sports and physical fitness, and then be able to observe, think and appreciate the actual phenomena related to sports. 2.Understand the relationship between exercise and healthy life, and cultivate self-interest in exercise, and then develop regular exercise habits. 3.Understand the rules and common sense of badminton B.Skill 1.Develop badminton fitness and have the ability to engage in badminton sports 2.Learn the basic sports methods and skills of badminton sports, and be proficient in badminton skills C.Affection 1.Abide by the rules, teamwork, fair competition 2.Cultivating temperament to appreciate the beauty of sports	0	A	Office of Physical Education	SDG3,SDG5
2023	1121	Master	1	M32014SU	A	Natural food and disease prevention	Understanding the roles of bioactive compounds from natural food on disease prevention.	2	B	Department of Food Science	SDG3,SDG4
2023	1121	Bachelor	2	B6F02T00	B	Engineering Watch Keeping	The content of the subject curriculum are according with the IMO Model course 7.04 modules 29： Training objective to obtain professional skills and certification, training and leadership of senior marine engineer enable to play a heavy duty jobs	2	B	Department of Marine Engineering	SDG4,SDG7,SDG11,SDG14,SDG12
2023	1121	Bachelor	2	B56021AV	A	Exploitation of ocean renewable energy	(1)Introduction to types of ocean energy, operational principles, suitable environments, and limitations. (2)Introduction to ocean energy development and applications around the world.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG7
2023	1121	Master	1	M73010T2	A	Green Shipping and Supply Chain Management	•Enable students to understand the theories and concepts of green shipping and supply chain management. •Enable students to acquire applicable skills to analyze effectiveness as well efficiency of shipping and supply chain systems. •To trigger students’ learning motivation through hands-on experience and case studies •To make student to capture the real skill in supply chain management using the real case study and academic papers to present the ideas to students.	3	B	Department of Shipping and Transportation Management	SDG9,SDG12,SDG13
2023	1121	Master	1	M74011S1	B	Administrative Law - General Principles(I)	1. Introduction to basic theories of administrative law 2. To establish students' understanding of modern administrative activities and their derivative legal phenomena, and guide the formation of their problem awareness, with a view to stimulating their interest in advanced learning in cross-field research from different angles. Interactive discussions are also used to promote students' understanding, analysis and systematic mastery of basic issues.	2	A	Institute of the Law of the Sea	SDG1,SDG2,SDG3,SDG8,SDG10,SDG12,SDG14,SDG16,SDG13,SDG11,SDG9,SDG7,SDG6,SDG5
2023	1112	Doctorate	1	D7401H9H	A	Seminar on International Law of the Sea	To provide students with a full understanding of the main key issues in the subject and the ability to conduct research	2	B	Institute of the Law of the Sea	SDG16

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2023	1121	Master	1	M3B01HLT	B	Applications and Managements for Healthier Life by Digital Technology	The importance of digital technology has attracted great attention from industry, government and academia in the world. This course plans to gradually guide students to understand the latest development in research and industrial fields of artificial intelligence (AI), Internet of Things (IoT), blockchain and other related technologies in the field of diversified health from fundamentals to applications. It is expected to inspire students to actively understand the digital technology, and have the ability to communicate with diversified health fields, so as to get prepared to step into the challenges of the next generation of digital industry.	2	B	Department of Bioscience and Biotechnology	SDG1,SDG11,SDG10,SDG3,SDG2
2023	1121	Master	2	M7212I38	B	Seminar	Students can improve their ability to publish papers, grasp research progress, and enhance academic and technical exchanges by participating in academic speeches and discussions.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Doctorate	1	D53013H1	A	Hilbert-Huang Transform	Let students be familiar with the fundamental principle and contents of HHT analysis	3	B	Department of Electrical Engineering	SDG3,SDG4,SDG8,SDG9,SDG14,SDG17,SDG11
2023	1121	Master	2	M04024NT	A	International IP Laws (I)	This course will help students learn the major international IP treaties and explore the IP legal issues in the globalized world.	2	B	Master Degree Program in Ocean Policy	SDG7,SDG13,SDG16,SDG17,SDG14,SDG12,SDG8,SDG9,SDG11
2023	1121	Master	1	M3B01TGH	B	Innovation Data Technology in Green Healthy Industry	The main purpose of this course is to let students understand the concepts, methods and applications of digital technology in green health industry through the study and training of data analysis. The course topics include the introduction to the technological needs and development of the green health industry, theories about healing and living in healthier, and understanding the information needed and how to be analyzed for health industry. The content of lecture further allows students to understand how to analyze the physical environment and environmental spatial information, the healing visual landscape, VR landscape simulation, learning psychological data analysis and evaluation in order to comprehensively understand the green industry. In addition, the third part of course is focusing on the introductions to the development of related industries, understanding the relevant laws and regulations, and the real application cases in Taiwan. The fourth part of this course is based on t	2	B	Department of Bioscience and Biotechnology	SDG3,SDG11
2023	1121	Master	1	M3B01PIM	B	Precision Nutrition and Intestinal Microbiota in Diversified Health	Lecturers invited in this course are from enterprises. They will share their vision and experience from industrial angle to discuss the future development trends in aquatic feed, aquafeed additives, probiotics and animal health products. and external teachers to talk about the emerging trends of aquatic feed, feed additives, probiotics and animal health products.	2	B	Department of Bioscience and Biotechnology	SDG3,SDG12,SDG14,SDG9
2023	1121	Bachelor	3	B5603034	A	Soil Mechanics	Soil mechanics is a science that explores the basic principles and technologies of geotechnical engineering, and studies the safety and health of human living environments in different environments. First, the evolution of geotechnical engineering is discussed, and then the scope of soil mechanics business and the necessary knowledge and techniques for soil mechanics engineers are discussed, such as soil properties, interaction between waste materials and soil, environmental site characteristics and surveys, environmental and soil mechanical behavior, and foundation design. , environmental geotechnical disasters and prevention, etc., have a complete and in-depth understanding; finally, topics related to environmental geotechnical engineering are discussed. Enable students to apply the principles of environmental geotechnical engineering to actual engineering environmental risk assessment and adjustment, and to marine geotechnical engineering to reduce the occurrence of engineering disasters.	3	A	Bachelor Degree Program in Ocean Engineering and Technology	SDG11
2023	1121	Master	2	T4602IB3	A	Seminar on International Dispute Settlement Mechanism	The course is divided into three toptics: (1) international negotiation, (2)international litigation, and (3) other approaches for peacefully settling international disputes. For example, international mediation and commissions of inquiry. By the end of the semester, students will be familiar with machanisms and skills in responding to international conflicts and crieses.	2	B	Institute of the Law of the Sea	SDG2,SDG4,SDG10,SDG17,SDG15,SDG13,SDG12
2023	1121	Master	1	T4A012IB	A	Spatial Decision Support System	The spatial decision support system uses computer tools to integrate attributes and spatial information from various sources through geographic information systems (GIS) to assist decision-makers in formulating the best spatial decisions. It is one of the technologies that has developed rapidly in recent years. This course is designed to meet the needs of master's and junior college students. It provides an introduction to the basic concepts of GIS, along with an introduction to principles, architecture, methods, and application directions, as well as practical use of simple GIS window tools to equip students with the basics of processing spatial data. Ability, and then through simulation analysis of application examples in different fields, to enhance students' understanding and familiarity with the construction and application of spatial decision support systems.	2	B	Department of Merchant Marine	SDG4,SDG8,SDG9,SDG17,SDG11
2023	1121	Bachelor	4	B7204R3K	A	Precision Machining Analysis	Familiar with precision machining knowledge and analysis methods to have system integration design and manufacturing capabilities	3	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9,SDG12,SDG8
2023	1121	Bachelor	3	B72034G8	A	Introduction to Biofluid Mechanics	Understand the basic properties of biomedical fluid, the circulation systems.	3	B	Department of Mechanical and Mechatronic Engineering	SDG3,SDG4
2023	1121	Master	1	T46014MY	A	Seminar on Ocean Policy-General Provisions	Understand the basic theory and practice of international ocean policy	2	B	Institute of the Law of the Sea	SDG14,SDG17,SDG16
2023	1121	Master	1	M34012CE	A	Biostatistics	The students will understand the basic and common concepts of biostatistics. Also, they will be able to apply common statistical tools in their own researches in marine biology and ecology.	3	B	Institute of Marine Biology	SDG13,SDG14
2023	1121	Bachelor	1	B53011S9	A	An Introduction to Electrical Industries	Electrical related disciplines and industries will be introduced. It is expected that first-year students will understand various fields and related industries after entering the Department of Electrical Engineering, and help students find their learning goals and motivation.	3	B	Department of Electrical Engineering	SDG3,SDG12,SDG17,SDG16,SDG9,SDG4,SDG8
2023	1121	Master	1	M7401H86	A	Seminar on International Law of the Sea	The aim of the course is to assist students to familiarise with major issues and contemporarychallenges of the law of the sea. By the end of this course, students should be equipped with the ability to critically think and make a judgment on relevant international maritime incidents and will be able to provide legal advises to the areas studied.	2	A	Institute of the Law of the Sea	SDG1,SDG2,SDG4,SDG16,SDG17,SDG14,SDG13,SDG12
2023	1121	Master	2	M9D025P6	A	Media and English Teaching	The purpose of the course is to raise up quality of English education 優質教育and to foster novelty of educational industry產業創新. This course is to study the topics on digital technology assisted classroom teaching and the application of digital technology to teaching English.	3	B	Institute of Applied English	SDG4,SDG9
2023	1121	Master	1	M300132T	A	Laboratory animal husbandry and experimental technique	The goal of this course is to create a full series of practical training for the first time in the country. In order to implement the "Animal Protection Law", institutions that carry out scientific applications of animals should conduct experimental animal feeding and management training, so that students can deepen their understanding of the welfare, feeding and management of experimental animals and strengthen their learning of related experiments. The application of technology is clever, and comprehensive issues of rats and mice are used as the core of the course. This course is suitable for research students interested in basic research in food biomedicine or laboratory animal management certification.	2	B	College of Life Sciences	SDG3,SDG4
2023	1121	Master	1	M9A010M0	B	Educational Research Methods	1.Students can understand the basic concepts of educational research. 2.Students can understand and use the different methods of educational research. 3.Students can write and present the dissertation proposal.	3	A	Institute of Education	SDG3,SDG10,SDG4

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2023	1121	Bachelor	2	B77020ZC	A	Human Resources Management	Upon completing this course, students will be able to: 1. Understand topics related to HRM in the global perspective; 2. Identify current Taiwan HRM relevant issues and provide solutions; 3. Present the identified issue and solution in class based on HRM theories and further apply HRM theories in organizations. 4. Ability to pass aPHRi certificate exam from the HCRI	3	A	Bachelor Degree Program in Ocean Business Management	SDG4
2023	1121	Master	1	M7211I38	C	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	1	B7201L6G	A	General Chemistry Lab.	Teach students the fundamentals of conducting chemistry experiments.	1	A	Department of Mechanical and Mechatronic Engineering	SDG3,SDG6
2023	1121	Master	1	M7301S09	B	Quantitative Methods	This course introduces the multivariate statistical techniques regularly used in business research, such as MANOVA, discriminant analysis, cluster analysis, canonical correlation, logistic regression, etc. By integrating the application of computer software such as SPSS or LISREL, this course expands beyond basic concepts of statistical techniques to include more operational skills on doing research in business and managment issues. The dual-objective of this course is to provide a sound conceptual understanding on statistical issues, and to provide hands-on experience with major statistical software packages. Specific objectives this course seeks to accomplish are as follows:	3	A	Department of Shipping and Transportation Management	SDG4
2023	1121	Bachelor	1	B7201081	B	Engineering Graphics Drawing	This course is based on engineering graphics. Teaching skills related to drawing and mapping. The training of drawing includes: orthographic projections of points, lines and faces, Learn how to render a part or component with a three-view, an auxiliary view, and a section view. In addition to drawing by hand, It is supplemented by computer graphics software (SolidWorks) for teaching and drawing.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Master	1	M7211I38	E	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4
2023	1121	Bachelor	2	B7202P48	B	Electric Circuits	Enable students to understand the basic principles of circuit analysis for future application on Electronics, Automatic Control, and Mechatronics.	3	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG8,SDG11,SDG9
2023	1121	Master	1	M7201M5D	A	Lab on MEMS Fabrication Processes	This course is designed to train students engaged in microelectromechanical system research. By arranging basic microelectromechanical process experiments, students can understand the basic principles of each process. Through this practical experimental operation, students can produce microelectromechanical components, allowing students to build microelectromechanical systems. System-related process implementation capabilities to train micro-electromechanical system talents.	1	B	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1121	Bachelor	3	B5103P1C	A	Electronics (II)	Learn the principles and applications of electronic circuits such as amplifier frequency response, thyristors and other components, operational amplifiers, basic operational amplifier applications, special-purpose operational amplifier circuits, active filters, oscillators, etc.	3	B	Department of Systems Engineering and Naval Architecture	SDG4,SDG17
2023	1121	Master	1	M9D01PPP	A	Academic Research Ethics	To cultivate higher education students who have just entered the research field to understand the importance of academic ethics. It is hoped that through the course, students will improve their academic ethical thinking, universal values, legal norms and other ethical knowledge, and enhance their understanding of the implications and practical aspects of academic ethics and research ethics. Understand and implement honest and responsible research conduct	0	A	Institute of Applied English	SDG4
2023	1121	Master	2	M9D12J25	A	Thesis	To cultivate students' general knowledge and understanding of academic research and paper writing. Teach students how to draw up a proper ""Personal Development Plan"" (including: career planning, academic planning, current development plan and master's degree plan), and then select a thesis topic and supervising professor. Guide and assist students to complete a substantial ""Master's Thesis Research Plan"", and then complete the ""Master's Thesis"" as soon as possible and successfully obtain a master's degree.	3	A	Institute of Applied English	SDG4
2023	1121	Bachelor	3	B71031KH	A	Electronic Chart Display and Information System	The content of this course is based on the provisions of Chapter II, Section II/1, Table A-II/1 and Section II/2, Table A-II/2 of the STCW Charter, and complies with the International Maritime Organization (IMO) Model Course 7.03-1.4 (Use of ECDIS to maintain safety of navigation), and Model Course 1.27 – Specifications for the operational use of operational-level electronic chart display and information systems (Operational Use of ECDIS). Courses are planned taking into account the teaching of relevant necessary knowledge and skills, so that students can not only understand the various regulations of IMO/IHO for this system, but also have the basic knowledge and necessary skills to operate the system.	2	A	Department of Merchant Marine	SDG4,SDG14
2023	1121	Master	1	M7301Q92	A	Seminars on Managerial Accounting	Introduce the concept of cost, the planning and control methods of each cost element and various cost accounting systems, so that students can understand how the costs incurred in enterprise production activities are accumulated, how to allocate them to products or services, how to record them, and be able to reorganize and analyze relevant information. , to assist managers in the formulation, planning, control, and performance evaluation of different decisions to achieve corporate goals.	3	B	Department of Shipping and Transportation Management	SDG4,SDG8
2023	1121	Master	1	M6701S7Q	A	Satellite Navigation	Introduction to the principles and applications of satellite navigation	3	B	Department of Communications Navigation and Control Engineering	SDG4,SDG11,SDG17,SDG5
2023	1121	Master	1	M7211I38	D	Seminar	The improvement of students'' ability to compose papers through the process of attending seminars and discussions. The schedule of the research and the improvement and discussions of academics and skills will be emphasized.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG17,SDG9,SDG12
2023	1121	Master	1	M5201306	A	Water Resource System Analysis	In response to water problems (too much, too little, too dirty), we try to use effective methods based on system analysis to find feasible solutions for water development, conservation, control, utilization and management activities.	3	B	Department of Harbor and River Engineering	SDG15
2023	1121	Master	1	M7101PPP	A	Academic Research Ethics	To cultivate higher education students who have just entered the research field to understand the importance of academic ethics. It is hoped that through the course, students will improve their academic ethical thinking, universal values, legal norms and other ethical knowledge, and enhance their understanding of the implications and practical aspects of academic ethics and research ethics. Understand and implement honest and responsible research conduct.	0	A	Department of Merchant Marine	SDG3,SDG4,SDG5,SDG11,SDG10

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2023	1121	Master	2	M7102J25	A	Thesis	This course trains graduate students to integrate the professional courses they have studied and discuss research directions with their supervisors to complete their master's thesis. The guidance includes guidance and consultation on the formulation of thesis topic, guidance on collecting and reading relevant literature, selection of research methods, presentation of research results, and methods of writing thesis. In addition, this course emphasizes training students' logical thinking skills, time management, research execution, academic writing and publishing academic papers.	6	A	Department of Merchant Marine	SDG1,SDG5,SDG11,SDG10,SDG3
2023	1121	Bachelor	2	B9E022TN	A	Oceanic Cultural Creative Product Design	The teaching objectives of this course are to enable second-year students majoring in Marine Cultural and Creative Design Industry to understand the concepts and design methods of marine cultural and creative product design. The course design focuses on enabling students to have a concrete understanding of the nature of design activities and the product design process, using learned theories and design methods to propose creative and reasonable solutions to designated marine cultural and creative product design issues. The specific objectives are as follows: 1. Understand the concept of marine cultural and creative product design 2. Understand the design process 3. Independent analysis of design issues 4. Design research and analysis capabilities 5. Creative thinking and innovation abilities 7. Detail design capabilitiesducts, demonstrating adaptation abilities to the practical world. 8. Presentation and expression abilities	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG9,SDG12,SDG11
2023	1121	Bachelor	3	B9E033XJ	A	Cultural and Creative Brands and Marketing Practices	Cultural and Creative Branding and Marketing Practices	3	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG4
2023	1121	Bachelor	1	B7201081	A	Engineering Graphics Drawing	This course is based on engineering graphics. Teaching skills related to drawing and mapping. The training of drawing includes: orthographic projections of points, lines and faces, Learn how to render a part or component with a three-view, an auxiliary view, and a section view. In addition to drawing by hand, It is supplemented by computer graphics software (SolidWorks) for teaching and drawing.	1	A	Department of Mechanical and Mechatronic Engineering	SDG4,SDG9
2023	1112	Master	2	T4I02J14	A	Ship Fleet Planning and Management	This course is an advanced course for scheduled shipping. It is hoped that through the introduction of fleet deployment and route design of shipping companies, students can better understand the operating characteristics, production and resource planning of scheduled shipping.	3	B	Department of Shipping and Transportation Management	SDG4,SDG9
2023	1121	Bachelor	2	B9E023Z2	A	Computer Graphics(一)	This course aims to cultivate students'' abilities in creative design thinking by teaching them the most commonly used computer-aided design (CAD) software and practical design processes in the Taiwanese industry. Drawing from relevant literature and diverse media, the course will focus on developing students'' skills in operating CAD and computer-aided industrial design (CAID) drawing programs. Enrollment in this course requires completion of the previous semester''s course on Computer Drawing (I) and a basic proficiency in three-dimensional design composition.	2	A	Bachelor Degree Program in Oceanic Cultural Creative Design Industries	SDG9,SDG12
2023	1121	Master	1	M7301J68	A	Organization and Management	1. Understand the basic theories of management 2. Strengthen students’ self-disclosure of management-related functions	3	A	Department of Shipping and Transportation Management	SDG3,SDG17,SDG4
2023	1121	Master	1	T4X013NS	A	Advances in Applied Microbiology	This course is designed for students who are interested in the latest research of microbial environmental stress response and application of natural antibacterial agents.	3	B	Institute of Food Safety and Risk Management	SDG2,SDG6,SDG9,SDG11,SDG7,SDG3