National Taiwan Ocean University

0308-Bachelor Degree Program in Marine Biotechnology (For the academic year 2024; Admission Status: International Students)

Subject category	Subject name	Credit points	Cross-disciplinary subjects	First academic year		Second academic year		Third academic year		Fourth academic year		Fifth academic year		Remarks
				F	S	F	S	F	S	F	S	F	S	
General education courses	Chinese	4	Unlimited	2	2									2 credits each for the fall and spring semesters
	English B9B01968、B9B01969	4	Unlimited	2	2									Freshman English requires 2 credits each for the fall and spring semesters.
	38-Advance English	2	Unlimited	2										Advanced English in the sophomore year, 2 credits (only available for students from sophomore year and above).
	11- Liberal arts courses	14	4	2	2,2	2,2	2,2							This field includes eight major subfields: character development and multiculturalism; democracy, rule of law, and civic awareness; globalization and socio-economic structures; Chinese and foreign classics; aesthetics and aesthetic expression; technology and society; natural sciences; and historical analysis and interpretation. Each subfield allows a maximum of 4 credits.
	Introduction to Oceanography B9M01Z64	2	Unlimited	2										Required liberal arts courses for freshman year.
	Introduction to Artificial Intelligence B9M01024	2	Unlimited		2									Common liberal arts required courses for freshman year.
	19- Physical education courses	0	Unlimited	0	0			0	0					Students must attend 2 hours of class per week and complete a total of four semesters of zero-credit

														required courses. This includes at least one semester of swimming. However, students who meet the university's criteria for exemption from the swimming course are allowed to be exempted and must instead take another physical education course.
	English Graduation Requirements B9D03TVS	0	Unlimited					0						According to the university's English graduation requirements, students who do not meet the English proficiency standards during their studies must provide proof of failure. After review and registration by their department, they are required to take the 'English Improvement' course (zero credits). Only by passing this course can they be eligible for graduation.
	Swimming Graduation Requirements B92A12P5	0	Unlimited					0						The following conditions must be met for swimming proficiency: 1. Completion of a swimming course during the academic period. 2. Participation in the university's swimming proficiency test and obtaining certification from the sports department for successfully swimming a distance of fifty meters. 3. Participation in recognized swimming competitions with documented proof of participation or achievements. 4. Submission of a medical certificate stating the inability to engage in swimming activities, specifying the duration of the restriction, and if the restriction

														extends beyond the student's remaining period of study.
Subtotal of general education course credits		28		8	10	6	4	0	0	0	0	0	0	
Academy required courses	General Chemistry(1) B3801L6L	2	Unlimited	2										
	Programming and Data Processing B38012SX	2	Unlimited	2										
	General Chemistry Lab.(I) B3801L6M	1	Unlimited	1										Experiment for 3 hours.
	Biology (I) B380145P	3	Unlimited	3										
	Biology Lab. (I) B380145Q	1	Unlimited	1										Experiment for 2 hours.
	General Chemistry (Ⅱ) B3801L6N	2	Unlimited		2									
	General Chemistry Lab.(II) B3801L6P	1	Unlimited		1									
	Introduction Fishery Sciences B3801295	2	Unlimited		2									
	Biochemistry (I) B380245A	3	Unlimited			3								
	Biostatistics B3802463	3	Unlimited				3							
	Microbiology B3802M83	3	Unlimited				3							
	Microbiology Lab. B3803N00	1	Unlimited					1						
Subtotal of departmental required credits		24		9	5	3	6	1	0	0	0	0	0	

Departmental Required Courses of Specialty	Marine Biotechnology and Biotech Industries B38012VX	2	Unlimited	2										
	Biology (Ⅱ) B380145R	3	Unlimited		3									
	Biology Lab. (Ⅱ) B380145S	1	Unlimited		1									
	Marine Biology B3801D46	3	Unlimited		3									
	Organic Chemistry (I) B380260C	3	Unlimited			3								
	Phycology B380243P	3	Unlimited			3								
	Marine Active Substance Utilization and Drug Development B380238U	3	Unlimited			3								
	Ecology B3802472	3	Unlimited			3								
	Biochemistry (II) B380245B	3	Unlimited			3								
	Biochemistry Lab.(I) B3802448	1	Unlimited			1								
	Cell Biology B3801J51	3	Unlimited			3								
	Molecular Biology(I) B38030JS	2	Unlimited					2						
	Marine Biodiversity B3803B7F	2	Unlimited						2					
	Biotechnology B380347N	3	Unlimited						3					
	Biotechnique B380347P	3	Unlimited						3					
	Molecular Biology(II) B38030JT	2	Unlimited						2					
	Seminar B3803I38	1	Unlimited							1				

Subtotal of departmental required courses of specialty credits	41		2	7	19	0	2	10	1	0	0	0	
Total credits	93		19	22	28	10	3	10	1	0	0	0	
Total required credits	93												
Minimum elective credits	35												
Minimum graduation credits	128												
Note on minimum elective credits	1. The Principles of Course Locations: Generally, first-year courses are conducted at the Keelung campus, second-year courses at the Matsu campus, and third- and fourth-year courses at the Keelung campus. "Biochemistry I" and "Biochemistry Lab I" will be taught at the Keelung campus during the summer break between the first and second years. 2. Encouragement of Double Majors and Interdisciplinary Learning: To encourage students to pursue double majors and interdisciplinary studies, this program has no limit on the number of credits taken from other departments. However, second-year required courses in this program cannot be substituted with equivalent courses from other departments, except for students who are retaking a course they previously failed.												
Note on minimum graduation credits	3. English Graduation Requirements for the Program: (1) The English graduation requirement for this program is a TOEIC score of 600 or higher, or an equivalent score on other university-recognized English proficiency tests. (The university's requirement is a TOEIC score of 550 or higher.) (2) Students who take the proficiency test but do not meet the above requirement must take an additional 2-credit intermediate-advanced English course, which can count towards graduation credits. (3) Intermediate and advanced English courses, as well as elective courses in a second foreign language, can be counted towards elective graduation credits.												
Remarks	4. The minimum graduation requirement for this program is 128 credits, with 93 credits being compulsory and at least 35 credits being elective. Students must apply for and obtain a degree or certificate from one of the following departments to graduate: Life Sciences and Biotechnology, Aquaculture, or Food Science. The available options are a double major degree, a minor degree, or a secondary specialization certificate (the latter is available only for Aquaculture and Food Science). 5. Additionally, students are required to complete 18 credits of liberal arts courses, including "Introduction to Marine Science" and "Introduction to Artificial Intelligence," each worth 2 credits in the first year. Extra credits earned beyond this requirement will not count towards elective graduation credits. 6. A maximum of 2 credits from elective courses in military training or national defense education can be counted towards graduation credits. 7. Credits from physical education courses do not count towards the minimum departmental graduation credits.												