(For students admitted in 2023-24 under the 4-year degree)

BSc in Ocean Science and Technology

In addition to the requirements of their major programs, students are required to complete the University and School requirements for graduation. For details please refer to the respective sections on this website.

Students may use no more than 6 credits earned from courses offered in self-paced online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

Under the new 30-credit Common Core Program which is applicable to students admitted to the University in 2022-23 and thereafter, courses that have been counted towards School and/or Major Requirements are not allowed to be reused for fulfilment of the University Common Core Requirements. Students should look up the details of the Common Core Program including the general and School-/program-specific distributional requirements posted on the Common Core website where the link to it is available on this website.

Major Requirements

Students MUST take the following courses prior to enrollment into the major

Major Pre-requisite course(s)

			Credit(s) attained
OCES	1001	The Earth as a Blue Planet	3
OCES	1010	Principles and Applications of Environmental Science	3

Required Course(s)

			Credit(s) attained
OCES	2001	Survey of Ocean Science	3
OCES	2002	Marine Chemistry	3
OCES	2003	Descriptive Physical Oceanography	3
OCES	3001	Coastal Environmental Monitoring	3
OCES	3003	Field Methods in Marine Studies	3**
OCES	3130	Marine Biology	3
OCES	3160	Ecology	3
OCES	4001	Ocean and Climate Change	3
OCES/SCIE		Note: OCES 4964 OR (OCES 4974 AND OCES 4984) OR (SCIE 3500 AND SCIE 4500) (Students following IRE Track can only use (SCIE 3500 AND SCIE 4500) to fulfill the requirement.)	3-6
OCES	4964	Ocean Science and Technology Capstone Project Research	3
OCES	4974	Ocean Science and Technology Research Project I	3

OCES	4984	Ocean Science and Technology Research Project II	3
SCIE	3500	IRE Research Project I	3
SCIE	4500	IRE Research Project II	3
CHEM	1011	General Chemistry A: Reactions, Thermodynamics, and Reaction Kinetics	3
CHEM	1012	General Chemistry B: Atomic Structure, Molecules, and Bonding Theories	3
LIFS		Note: Students with level 3 or above in HKDSE 1x Biology are exempted from taking LIFS 1901	0-3
LIFS	1901	General Biology I	3
LIFS	1902	General Biology II	3
MATH		Note: (MATH 1012 OR MATH 1013 OR MATH 1023) OR MATH 1020	3-4
MATH	1012	Calculus IA	4
MATH	1013	Calculus IB	3
MATH	1020	Accelerated Calculus	4
MATH	1023	Honors Calculus I	3
PHYS		Note: PHYS 1111 OR PHYS 1112 OR PHYS 1312	3
PHYS	1111	General Physics I	3
PHYS	1112	General Physics I with Calculus	3
PHYS	1312	Honors General Physics I	3
COMP	1021	Introduction to Computer Science	3
LANG		Note: LANG 3025 OR LANG 3027 (Students following IRE Track should take LANG 3027 to fulfill the requirement.)	3
LANG	3025	Science Communication in English (Environmental Science)	3
LANG	3027	Science Communication in English for Research Students	3

Elective(s)

			Minimum credit(s) required
OCES/CHEM/ LIFS/MATH		Ocean Science and Technology Electives (Courses from the specified elective list. Students taking the Marine Ecology Option must use OCES 4203 and OCES 4301 to count towards this elective requirement, while those taking the Oceanography Option must use MATH 1014 and OCES 3301. Courses taken to fulfill the Track/Option requirements may not be counted towards this elective requirement.)	12
OCES	2201	Internship	2-4
OCES	3201	Biological Oceanography	3
OCES	3203	Physical Oceanography	3
OCES	3301	Data Analysis in Ocean Science	3
OCES	3302	Marine Pollution Tracking	3
OCES	3330	Marine Biology Laboratory	3
OCES	4103	Fisheries and Aquaculture	3

OCES	4201	Environmental Microbiology	3
OCES	4202	Marine Biotechnology	3
OCES	4203	Environmental Impact and Risk Assessment	3
OCES	4204	Coral Reef Ecosystem Science	4
OCES	4205	Chemical Oceanography	3
OCES	4301	Environmental Conservation	3
OCES	4320	Marine Toxicology	3
OCES	4326	Introduction to Fluid Dynamics	3
OCES	4940	Special Topics in Ocean Science and Technology	1-4
CHEM	2311	Analytical Chemistry	3
LIFS	2011	A Practicum on Wetland Conservation	3
LIFS	2060	Biodiversity	3
LIFS	3150	Biostatistics	3
MATH	1014	Calculus II	3
MATH	2350	Applied Linear Algebra and Differential Equations	3
MATH	2411	Applied Statistics	4
MATH	4326	Introduction to Fluid Dynamics	3

Track Study

International Research Enrichment Track

Students in the IRE Track should also take SCIE 3500 and SCIE 4500 as specified in the major requirements.

Required Course(s)

			Credit(s) attained
OCES	3301	Data Analysis in Ocean Science	3
LIFS/MATH		Note: LIFS 3150 OR MATH 2411	3-4
LIFS	3150	Biostatistics	3
MATH	2411	Applied Statistics	4

Others

With approval by the program office, students should enroll in one of the following Ocean Science Options: Marine Ecology Option or Oceanography Option, and complete all of its requirements.

Students may opt to graduate with or without an option. Students who take an option MUST complete all requirements specified in addition to the major requirements.

Option(s)

Marine Ecology Option

Students taking Marine Ecology Option should also take OCES 4203 and OCES 4301 as the Major Electives as specified under the Major Requirements.

Elective Course(s)			**Minimum credit(s) required**
OCES		Marine Ecology Electives (2 courses from the specified elective list)	6
OCES	3302	Marine Pollution Tracking	3
OCES	4201	Environmental Microbiology	3
OCES	4204	Coral Reef Ecosystem Science	4
OCES	4320	Marine Toxicology	3

Oceanography Option

Students taking Oceanography Option should also take MATH 1014 and OCES 3301 as the Major Electives as specified under the Major Requirements.

Elective Course(s)			**Minimum credit(s) required**
OCES/MATH		Oceanography Electives (2 courses from the specified elective list)	6
OCES	3201	Biological Oceanography	3
OCES	3203	Physical Oceanography	3
OCES	4205	Chemical Oceanography	3
MATH	2350	Applied Linear Algebra and Differential Equations	3

***Remarks on course(s):*

- OCES 3003: The credit value will be changed to 4 starting from Fall, 2025-26.