

OCEAN SCIENCES | COMBINED HONOURS SECONDARY (B) SUBJECT

NAME & BANNER # _____

Honours is declared in the third year of study, at which a "B+" average (3.3) must be attained in the 2000, 3000, and 4000 level courses listed below. Use this worksheet to map out your Ocean Sciences requirements. You're encouraged to take courses outside of oceanography in another area of interest to reach 40 total courses.

1. FOUNDATIONS

	COURSE	TERM	COURSE	TERM
1A. Physics	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
1B. Calculus	<input type="radio"/> _____	/ _____	<input type="radio"/> MATH 1010	/ _____
1C. Stats	<input type="radio"/> MATH 1060	/ _____		
1D. Science Foundation 1	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
1E. Science Foundation 2	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____

2. OCEAN CORE

2A. Blue Planet	<input type="radio"/> DCEA 2001	/ _____	<input type="radio"/> DCEA 2002	/ _____
2B. Tools & Concepts	<input type="radio"/> DCEA 2020	/ _____	<input type="radio"/> DCEA 2021	/ _____
2C. Intro to Field Oceanography	<input type="radio"/> DCEA 3003	/ _____		

3. OCEAN AREAS

3A. Ocean Area 1	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
3B. Ocean Area 2	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
3C. Ocean Area 3	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____

4. OCEAN CAPSTONE

4A. Oceans and Global Change DCEA 4000 / _____

5. CAS GENERAL REQUIREMENTS

5A. Writing course	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
5B. Mathematics	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
5C. Languages and Humanities	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
5D. Social Sciences	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____
5E. Life and Physical Sciences	<input type="radio"/> _____	/ _____	<input type="radio"/> _____	/ _____



OCEAN SCIENCES | COMBINED HONOURS SECONDARY (B) SUBJECT

REQUIREMENTS

1. FOUNDATIONS (*DISP students should consult an advisor for equivalencies*)

- 1A. **Either** PHYC 1190 & PHYC 1290 – Intro to Physics **or** PHYC 1310 & PHYC 1320 – Physics In and Around You
- 1B. MATH 1000 & MATH 1010 – Differential and Integral Calculus I & II (MATH 1215 – Life Science Calculus with a grade of “B” or better can be used in place of MATH 1000)
- 1C. MATH/STAT 1060 – Intro to Statistics
- 1D. **One** of the following introductory course sequences:
- BIOL 1010 & BIOL 1011 – Principles of Biology Part I & II
 - CHEM 1011 & CHEM 1012 – Concepts in Chemistry I & II
 - EARTH 1080 & EARTH 1090 – Geology I & II
- 1E. **Another one** of the introductory course sequences listed in 1D

2. OCEAN CORE

- 2A. OCEA 2001 & OCEA 2002 – Blue Planet I & II with a minimum grade of “B”
- 2B. OCEA 2020 & OCEA 2021 – Tools & Concepts in Ocean Sciences I & II with a minimum grade of “B”
- 2C. OCEA 3003 – Intro to Field Oceanography (summer term only; apply through SEASIDE)

3. OCEAN AREAS (*see reverse*)

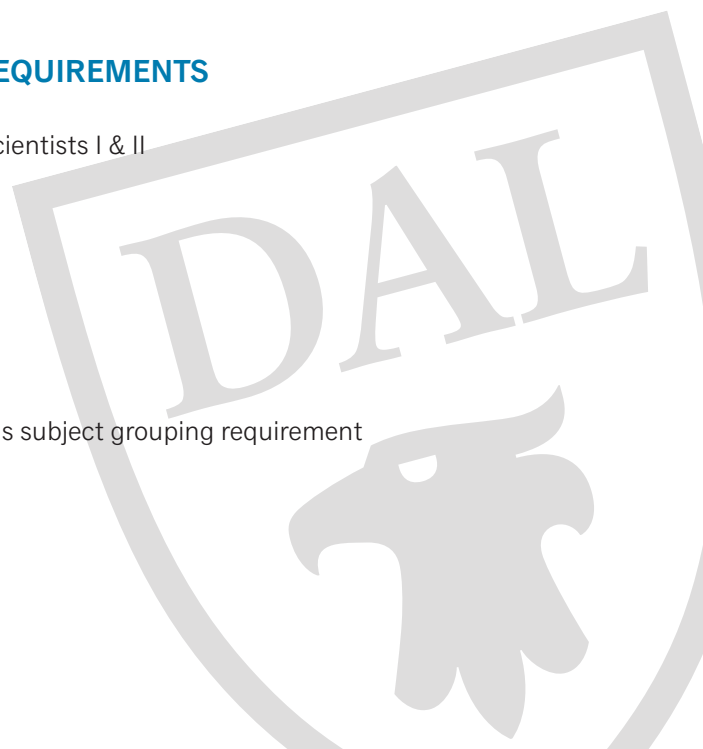
- 3A. **Two** courses from an Ocean Science Area not chosen in 3B or 3C
- 3B. **Two** courses from an Ocean Science Area not chosen in 3A or 3C
- 3C. **Two** courses from an Ocean Science Area not chosen in 3A or 3B

4. OCEAN CAPSTONE

- 4A. OCEA 4000 – Oceans and Global Change

5. COLLEGE OF ARTS & SCIENCE (CAS) GENERAL REQUIREMENTS

- 5A. Any **two** approved writing courses. Consider:
- OCEA 1001 & OCEA 1002 – Conversations with Ocean Scientists I & II
- 5B. MATH courses taken in **1B** fulfill this requirement
- 5C. Many courses fulfill this **two** course requirement. Consider:
- HIST 3073/OCEA 4331 – History of Marine Sciences
 - PHIL 1050 – Ethics in Science
 - **Courses chosen in 5C can't be used for 5D*
- 5D. Many courses fulfill this **two** course requirement. Consider:
- HIST 3073/OCEA 4331 – History of Marine Sciences
 - **Courses chosen in 5D can't be used for 5C*
- 5E. Any **two** PHYS, BIOL, CHEM, EARTH, or OCEA courses fulfill this subject grouping requirement



biological

- OCEA 3685 – Gulf of Eilat Ecosystem
- OCEA 4140 – Biological Oceanography*
- OCEA 4160 – Fisheries Oceanography
- OCEA 4230 – Biology of Phytoplankton
- OCEA 4330 – Benthic Ecology
- OCEA 4335 – Environmental Impacts in Marine Ecosystems
- OCEA 4370 – Deep Sea Biology
- OCEA 4380 – Marine Modelling
- OCEA 4665 – Hacking the Blue Planet

chemical

- OCEA 3002 – Intro to Chemical Oceanography*
- OCEA 3420 – Geochemistry of Aquatic Environments
- OCEA 4130 – Chemical Oceanography
- OCEA 4290 – Advanced Chemical Oceanography
- OCEA 4595 – Atmospheric Chemistry

OCEAN SCIENCE AREAS

geological

- OCEA 3004 – Last Billion Years
- OCEA 3420 – Geochemistry of Aquatic Environments
- OCEA 4110 – Geological Oceanography*
- OCEA 4115 – Micropaleontology and Global Change
- OCEA 4470 – Introduction to Seismic Imaging
- OCEA 4480 – Advanced Seismic Imaging

physical

- OCEA 3001 – Intro to Physical Oceanography*
- OCEA 4120 – Physical Oceanography*
- OCEA 4210 – Time Series Analysis in Oceanography and Meteorology
- OCEA 4220 – Numerical Modelling of Atmospheres and Oceans
- OCEA 4221 – Ocean Dynamics
- OCEA 4222 – Estuary, Coast and Shelf Dynamics
- OCEA 4250 – Acoustical Oceanography
- OCEA 4311 – Fluid Dynamics I
- OCEA 4411 – Atmospheric Dynamics I
- OCEA 4412 – Atmospheric Dynamics II
- OCEA 4505 – Atmospheric Physics
- OCEA 4520 – Intro to Atmospheric Science
- OCEA 4541 – Synoptic Meteorology I
- OCEA 4550 – Synoptic Meteorology II

CHECK ACADEMIC TIMETABLE FOR INFORMATION ON WHEN COURSES ARE OFFERED

** denotes required course for that Area – either OCEA 3001 or OCEA 4120 are required for physical oceanography*



**DALHOUSIE
UNIVERSITY**

FACULTY OF SCIENCE

DEPARTMENT OF OCEANOGRAPHY

dal.ca/oceanography

Tel: 902.494.3557 | oceanography@dal.ca