Overview

The study of Physical Oceanography involves an understanding of the mathematical equations that describe fluid flow, and how these are used in the context of the ocean. It also explores ocean measurement and the numerical modelling of processes at various scales.
Faculty
Faculty of Science

School
School of Mathematics & Statistics

Study Level
Undergraduate

Minimum Units of Credit
90

Specialisation Type
Major
Available in Program(s)

Program(s) in which this major is available

Bachelor of Advanced Science (Honours) - BAdvSci(Hons)

3962 Advanced Science (Honours)

Faculty: Faculty of Science
Campus: Kensington
Units of Credit: 192
Typical Duration: 4 Years
Specialisation Structure

Students must complete 90 UOC.

Level 1 Core Courses

Students must take 24 UOC of the following courses.

MATH1141 | 6 UOC
Higher Mathematics 1A

MATH1241 | 6 UOC
Higher Mathematics 1B

One of the following:
PHYS1121 | 6 UOC
Physics 1A

PHYS1131 | 6 UOC
Higher Physics 1A

One of the following:
PHYS1221 | 6 UOC
Physics 1B

PHYS1231 | 6 UOC
Higher Physics 1B

Level 2 Core Courses

Students must take 36 UOC of the following courses.

MATH2111 | 6 UOC
Higher Several Variable Calculus

MATH2221 | 6 UOC
Higher Theory and Applications of Differential Equations
Level 2 Core Courses

Students must take 30 UOC of the following courses.

MATH3041  |  6 UOC
Mathematical Modelling for Real World Systems

MATH3101  |  6 UOC
Computational Mathematics for Science and Engineering

MATH3121  |  6 UOC
Mathematical Methods and Partial Differential Equations

MATH3261  |  6 UOC
Fluids, Oceans and Climate

MSCI3001  |  6 UOC
Physical Oceanography

Recommended Electives

The following course is not required for this major, but is recommended as a good complementary course when students are selecting electives.
**Enrolment Disclaimer**

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.
**Additional Information**

**Honours**

For information about Honours in Advanced Physical Oceanography see the Physical Oceanography Honours stream or contact the [School of Mathematics and Statistics](#).
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions
© UNSW Sydney (CRICOS Provider No.: 00098G), 2019. The information contained in this Handbook is indicative only. While every effort is made to keep this information up-to-date, the University reserves the right to discontinue or vary arrangements, programs and courses at any time without notice and at its discretion. While the University will try to avoid or minimise any inconvenience, changes may also be made to programs, courses and staff after enrolment. The University may also set limits on the number of students in a course.

Authorised by Deputy Vice-Chancellor (Academic)
CRICOS Provider Code 00098G
ABN: 57 195 873 179