

OCEA 4302.03

Independent Research in Ocean Science

Course Description

Students in their 3rd or 4th year of study conduct supervised, independent research in Ocean Science. The student and a faculty supervisor together develop a course outline, with a proposal for original research and the method of evaluation, including a formal research paper. The course outline must be approved by the course coordinator before the student is permitted to register.

Independent Research Details

This course provides unique opportunities outside the regular classroom for upper-level students to engage in independent research. The student should do some initial exploration of a research area or question, find a supervisor, and prepare a proposal of the project.

This course builds on field work, lab experiment(s) or measurements, literature meta-analysis, and/or modeling exercise(s). The course is to be started and completed within one term.

Supervisors are regular faculty in the department of Oceanography who conduct research in an area related to the course. A faculty member may or may not agree to supervise such a course. If a faculty member cannot be identified to supervise the research project, the course cannot proceed. A maximum of 3 credit hours can be taken as an Independent Research course. The Independent Research course cannot replace one of the required core OCEA courses. The course coordinator is the Chair of the Curriculum Committee or designate.

Regulations for Admission

Students should be in their 3rd or 4th year of study.

Students must have a minimum of 60 credit hours completed. Prerequisites are OCEA 2001.03, OCEA 2002.03, OCEA 2020.03, OCEA 2021.03, and at least one 3000-level OCEA course. An average grade of 'B' average (GPA 3) must be attained in these OCEA courses.

Material prepared for an Independent Research course cannot be used in an Honours thesis. Students cannot take OCEA 4302.03 and the Honours course (OCEA 4201.03 and OCEA 4202.03) in the same academic year.

Material prepared for an Independent Research course cannot be derived from work performed as a routine expectation of employment, Co-op work terms, or paid summer student internships.

The finalized course proposal, details on assessment, and the completed registration form are submitted to the course coordinator no later than 3 days after the start of the term in which the student wishes to

register. The student is responsible for ensuring that these materials reach the course coordinator by the appropriate deadline.

The proposal and the assessment details are reviewed by the course coordinator and Curriculum committee and either approved, approved with modifications, or rejected.

If the research project is approved, the course coordinator will set up through the Banner system, permission to register in the course and notify the student that he or she may now register in the course.

Regulations for Completion

The student submits all required materials (as per approved proposal and assessment details) to the supervisor for evaluation no later than one week after the end of classes for the term in which the student is enrolled. In addition, the student prepares and submits a summary of activities (one page) to the course coordinator. The course coordinator may request the evaluated material from the supervisor.

The supervisor submits a final letter grade for the student and the details of the assessment to the course coordinator no later than 2 weeks after the student submitted the required materials to the supervisor.

The course coordinator will submit the final grade to the Banner system.

An Incomplete Grade (INC) will be assigned to students for whom no grade is received by the deadline specified above.

How to apply

The student, with approval from their supervisor, must submit the following separate documents.

1. Completed registration form signed by both the student and the supervisor (see last page of this syllabus).
2. A course proposal, written by the student (1-2 pages) including the (i) title of the project (ii) background information about the subject including in text citations and end references (iii) objective(s) of the research project (iv) methods used (v) and why this research is significant.
3. Details of assessment, written by the supervisor including a clear description of how the student will be evaluated, deadlines for submission of course assignments, final paper, and the value for each part being assessed. At least one deadline should be met by mid-term. Information on how the student and supervisor will interact (e.g., one or two-hour meetings held biweekly) is clearly stated.

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

**OCEA 4302.03
Independent Research in Ocean Science
Registration Form**

For the student:

- I have read the information and regulations for the Independent Research course.

- I agree to abide by the regulations for the Independent Research course, including the requirement that I submit (a) all materials to my supervisor on time and (b) a summary of activities (one page) to the course coordinator no later than 1 week after the end of classes.

- I understand that failure to follow the regulations will result in an INC grade being awarded for the Independent Research course, and that such grades are assigned a grade point value of 0.0.

Student Name and Banner Number: _____

Student's Signature: _____ Date: _____

Student's e-mail address: _____

For the Supervisor:

- I have read the information and regulations for Independent Research course.
- I agree to submit the details of my assessments and a final letter grade to the course coordinator no later than 3 weeks after the end of classes.

Please register the student in:

- OCEA 4302.03 Independent Research

Supervisor's Name: _____

Supervisor's Signature: _____ Date: _____

e-mail address: _____

Oceanography course coordinator

Name: _____ Date: _____

Signature: _____