Dalhousie University

Department of Oceanography

OCEA 1000: Conversations with Ocean Scientists (X/Y; 6 credit hours)

Instructor: Dr. Tetjana Ross
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Office: Life Sciences Complex, Rm. 5672
Office Hours: Tues 12:30-1:30 pm (or e-mail for appointment)
Session: Fall/Winter 2014/15
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Lectures and Tutorials
This class meets 3 hours a week. Tuesdays are always in the lecture hall and Thursdays alternate between small-group tutorials with the TAs and lectures in the lecture hall (see schedule).
Time: **Tues/Thurs 10:05-11:25 am**
Locations:

Lecture hall: **Life Sciences Complex (LSC) – C238**
Tutorial rooms:

Section	Room (Fall)	Room (Winter)
T01	LSC-Psychology P5208	LSC-Psychology P5208
T02	Killam Library 3616	McCain-Arts & SS 1130
T03	Killam Library 4106	LSC-Psychology P4208

Teaching assistants (TAs) and tutorial leaders:

Jenna Hare (T01)	LSC 5654	jenna.hare@dal.ca
Stefanie Mellon (T02)	LSC 5636	stef.mellon@dal.Ca
Danielle Denley (T03)	LSC 4658	danielle.denley@dal.ca

Readings are required for every tutorial and some Thursday lectures. They will be posted on the Blackboard Learning (BbL) site. Check it regularly!

Required Textbook: "Writing in the Life Sciences: A Critical Thinking Approach" by Laurence Greene (Oxford University Press, 2010).

Course Description
What does an Ocean Scientist do? In this writing intensive course, you will explore this question by meeting a wide range of scientists active in Ocean studies from within Dalhousie and the surrounding community as well as working through ocean science activities in the Core Concepts lectures and in a wet-lab. You will learn about different facets of Ocean Sciences, how scientists write and get the opportunity to discuss writing and other forms of scientific communication with active researchers. Your biggest contribution to the conversation will be to draft a research or review paper and take it through the entire journal submission and peer review process with the aim of eventual publication in the in-class online journal *Oceans First* (http://oceansfirstjournal.com).

Learning outcomes:

- Able to describe the breadth of studies within Ocean Science (i.e. can answer what is Ocean Science?) and how they interrelate
- Demonstrate skills in scientific writing
- Able to communicate science to a variety of audiences
- Demonstrate scientific literacy and critical thinking at a level useful for global citizenship and your future studies

Evaluation components:

Detailed descriptions of all the assignments will be posted on BbL. All assignments must be submitted through BbL and on paper.

1. **Major project** 30%
   Either a synthetic Review Paper of a topic in Ocean Science (should pull together specific research studies to address an issue or increase understanding of an outstanding scientific question) or a Research Paper based on one of the Data Packages. Many tutorial sessions are devoted to working through the process of creating and polishing the Review/Research Paper, as well as the peer-review process (see below).
   a. Proposal (2%)
   b. Post 5 peer-reviewed papers (1%)
   c. Outline (3%)
   d. Presentation (2%)
   e. Draft submission (10%)
   f. Final submission (12%)
2. **Peer-reviews** 10%
   Two written peer-reviews (i.e. itemized constructive criticism), about 2 pages long, of other students' draft major projects (5% each).
3. **Lecture analysis** 15%
   Each of the 5 lecture analysis write-ups will be 2 pages long. They will contain a brief summary, a question and an answer for each lecture.
4. **Science Essay** 8%
   Persuasive essay based on 3 scientific journal articles (similar to Comments and in the journal *Nature* or Perspectives in *Science*).
5. **Lab report** 6%
   An IMRAD-style lab report based on the "Density and stratification" experiment.
6. **Blog post** 4%
   A news-style science blog entry on an aspect of Ocean Science (an issue or a new discovery); 500 words.

7. **Tutorial quizzes** (12 x 0.5%) 6%
   Brief (~ 5 min) quizzes on the tutorial reading will be given in each tutorial. (Mark will be average of top 12 quizzes; lowest quiz mark will be omitted.)
8. **Library skills worksheet** 1%
   A worksheet based on library skills hands-on lecture.
9. **Participation** 5%
   Based on engaged, well-prepared and respectful participation in lectures and tutorials. Readings will be completed beforehand; marks divided equally between lectures and tutorials.
10. **Final Exam** 15%
    A combination of short-answer and long-answer questions (3 hours). *Please note*: The exam time will be set by the registrar by Jan 31, 2015, so do not make travel plans prior to this date, as it will not be possible to write your exam early.

Late/printing penalties: All assignments must be submitted on BbL before the deadline. Late penalties, of 10% per day (including weekends), will be assigned based on the time of the BbL submission. You must also hand in paper copies of all your assignments. If we have to print your assignment, we will assess an additional printing penalty of 5%. If submitting an assignment late on BbL, bring a printed copy to the main office in Oceanography (LSC 3631) between 8:30 am and 4:30 pm on the next working day. Extensions will only be given to students with a documented illness or emergency. Documentation must be provided.

Grading scheme:

A+ A A-	90-100 85-89.9 80-84.9	Excellent	Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.
B+ B B-	77-79.9 73-76.9 70-72.9	Good	Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
C+ C C-	65-69.9 60-64.9 55-59.9	Satisfactory	Evidence of some understanding of the subject matter; ability to develop solutions to simple problems; benefitting from his/her university experience.
D	50-54.9	Marginal Pass	Evidence of minimally acceptable familiarity with subject matter, critical and analytical skills.
F	0.00	Inadequate	Insufficient evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

Schedule:

Week	Tuesday (lecture)	Thursday (lecture/tutorial)	Assignments
#1		**September 4 (lecture hall)** Introduction & Syllabus	
#2	**September 9** Ocean Researcher #1	**September 11 (tutorial room)** Science and styles	Reading for Thu tutorial
#3	**September 16** Ocean Researcher #2	**September 18 (McCain 2018/2022)** Library skills session	Reading for Thu lecture
#4	**September 23** Ocean Researcher #3	**September 25 (tutorial room)** Audiences and styles	Lib. worksheet due Tue @ 10 am; Reading for Thu tutorial
#5	**September 30** Ocean Researcher #4	**October 2 (tutorial room)** Writing lab (proposal)	Science essay due Tue @ 10 am; Reading for Thu tutorial
#6	**October 7** Ocean Researcher #5	**October 9 (tutorial room)** Critical Reading I	Proposal due Thu @ 10 am; Reading for Thu tutorial
#7	**October 14** Ocean Researcher #6	**October 16 (lecture hall)** Core Concepts Lecture	Lect. analysis due Tue @ 10 am
#8	**October 21** Ocean Researcher #7	**October 23 (tutorial room)** Critical Reading II	5 papers posted by Tue @ 10 am; Reading for Thu tutorial
#9	**October 28** Ocean Researcher #8	**October 30 (tutorial room)** Writing lab (paper outline)	Reading for Thu tutorial
#10	**November 4** Ocean Researcher #9	**November 6 (lecture hall)** Core Concepts Lecture	Outline due Thu @ 10 am
#11	**November 11** STUDY DAY: No classes	**November 13 (tutorial room)** Critical Reading III	Reading for Thu tutorial
#12	**November 18** Ocean Researcher #10	**November 20 (tutorial room)** Project presentations	Major project presentations in tutorial
#13	**November 25** Ocean Researcher #11	**November 27 (tutorial room)** Project presentations	Lect. analysis due Tue @ 10 am; presentations in tutorial
#14	**December 2** Ocean Researcher #12		Draft paper due Tue @ 10 am
TERM BREAK	NO CLASSES		
#15	**January 6** Ocean Researcher #13	**January 8 (tutorial room)** Constructing constructive criticism	Reading for Thu tutorial
#16	**January 13** Ocean Researcher #14	**January 15 (lecture hall)** Core Concepts Lecture	First peer-review due Thu @ 10 am
#17	**January 20** Ocean Researcher #15	**January 22 (tutorial room)** Lab: Density and stratification	Reading for Thu tutorial;
#18	**January 27** Ocean Researcher #16	**January 29 (tutorial room)** Writing lab (blog)	Reading for Thu tutorial; Lect. analysis due Tue @ 10 am
#19	**February 3** Ocean Researcher #17	**February 5 (tutorial room)** Graphics lab	Reading for Thu tutorial
#20	**February 10** Ocean Researcher #18	**February 12 (lecture hall)** Core Concepts Lecture	Blog post due Tue @ 10 am
STUDY WEEK	NO CLASSES		
#21	**February 24** Ocean Researcher #19	**February 26 (tutorial room)** Revisions I: Global	Reading for Thu tutorial; Lab report due Tue @10 am
#22	**March 3** Ocean Researcher #20	**March 5 (tutorial room)** Revisions II: Paragraphs	Reading for Thu tutorial

#23	**March 10** Ocean Researcher #21	**March 12 (tutorial room)** Revisions III: Sentences	Lect. analysis due Tue @ 10 am; Reading for Thu tutorial
#24	**March 17** Ocean Researcher #22	**March 19 (lecture hall)** Core Concepts Lecture	2nd peer-review due Tue @ 10 am
#25	**March 24** Ocean Researcher #23	**March 26 (tutorial room)** Responding to reviews lab	Reading for Thu tutorial
#26	**March 31** Ocean Researcher #24	**April 2 (lecture hall)** Core Concepts Lecture	
#27	**April 7** Ocean Researcher #25	**April 9 (lecture hall)** Wrap up, Summary and Review	Final papers due Tue; Lect. Anal. due @ 4 pm Fri, Apr 10
EXAM PERIOD	**FINAL EXAM**		

Resources:

Academic Integrity

Dalhousie's policy on Academic Integrity: "At university we advance knowledge by building on the work of other people. Academic integrity means that we are honest and accurate in creating and communicating all academic products. Acknowledgement of other people's work must be done in a way that does not leave the reader in any doubt as to whose work it is. Academic integrity means trustworthy conduct such as not cheating on examinations and not misrepresenting information. It is the student's responsibility to seek assistance to ensure that these standards are met." From: http://academicintegrity.dal.ca/

Blackboard Learning site: Writing Centre Academic Integrity Module
Please refer to this site for further information, examples of plagiarism and how best to avoid it, and for clarification of policy and procedures. The Faculty of Science requires that all first year students complete the module on Academic Integrity.

Here is how to achieve academic integrity in this class:

- Make sure you understand Dalhousie's policies on academic integrity.
- All work submitted is done independently (by you!) and includes citations for the work and findings of others.
- Do not cheat in examinations by seeking or providing answers from/to other students, illegal study aids or sources outside the exam venue.
- If you are unsure about any aspect of the academic integrity policy, please contact your instructor or TA.

Student Accessibility and Accommodation

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic under the human rights legislation.

Students who require academic accommodation for either classroom participation or the writing of tests and exams should make their request to the Advising and

Access Services Center (AASC) prior to or at the outset of the regular academic year. Please visit www.dal.ca/access for more information and to obtain the Request for Accommodation form.

A note taker may be required as part of a student's accommodation. There is an honorarium of $75/course/term (with some exceptions). If you are interested, please contact AASC at 494-2836 for more information or send an email to notetaking@dal.ca

Please note that your classroom may contain specialized accessible furniture and equipment. It is important that these items remain in the classroom, untouched, so that students who require their usage will be able to fully participate in the class.

Studying for Success

University life can often be challenging. However, with help from the Studying for Success program, you too can become a more effective learner. Attend our workshops or drop in for individual study skills sessions, where we can help you with Time Management, Critical Reading, Note taking, Preparing for Exams, and much more. We at SFS would like to make your university experience a more rewarding one. Don't wait until it's too late! Let Studying for Success help you find smarter ways to study.
For more information or to make appointments, please:

- visit our website: www.dal.ca/sfs
- visit our main office in the Killam Library, Room G28 (main floor)
- call 494-3077 or
- email the Coordinator at: sfs@dal.ca

Writing Centre

Learning to write well contributes to good marks, completion of degrees and, later, success in the workplace. Now is the time to improve your writing skills. You can visit the Writing Centre for assistance with your assignments. Staff and tutors help you to understand writing expectations and disciplinary conventions. The service is available six days a week. (See our website for hours of operation at the various Writing Centre sites.)

To book an appointment call 494-1963; email writingcentre@dal.ca; visit the website for online booking at dal.ca/writingcentre; or drop in to the Killam's main floor Learning Commons (G40).

Visit the Writing Centre's Resource Guide at http://dal.ca.libguides.com/writingcentre for online guidance. Finally, see the website for the schedule of seminars on writing issues, including how to integrate source material appropriately into your work (avoid plagiarism).