

University of Toronto Scarborough
Department of Physical and Environmental Sciences
EESD19H3 S – Professional Development Seminars in Geoscience
2021 to 2022 Winter

Instructor: Ajay Jayalath, ajay.jayalath@gmail.com
Office hours: Tuesday, 1:00-2:00 PM and by appointment

Course philosophy and purpose:

This course is designed as a capstone experience, which means that its purpose is to both unify and provide a broader context for knowledge about the field of environmental sciences gained throughout your undergraduate years and its application to the industry.

This seminar course is intended to:

- (1) augment the breadth of the students' knowledge in the environmental geosciences,
- (2) provide information on current professional and research and development issues across the environmental science field; and,
- (3) stimulate professional interactions among students and outside professional scientists. The course also aims to introduce students to Phase I Environmental Site Assessment (ESA) procedure as part of their professional development.

Course goals and objectives:

To provide the breadth of learning requirements for undergraduate students in Environmental Sciences by attending seminars presented by distinguished external speakers. Students will also gain exposure to ongoing issues and new developments in a broad range of subdisciplines of Geoscience.

The overarching goal of this course is to allow participants to develop their written and oral presentation skills. This will be achieved through engagement in professional seminars and issues pertaining to geosciences and through the application of these practical skills.

Learning Outcomes:

By the end of this seminar series, you will be able to:

1. Critically analyze and engage in environmental science issues relating to professional careers
2. Carryout a Phase I Environmental Site Assessment
3. Design and deliver an effective and engaging seminar
4. Develop written and oral communication skills

Course Requirements:

As a seminar, this class requires regular preparation and participation by all students. The instructor will serve as a convener and facilitator rather than lecturer. The course necessitates that students assume a more active, responsible role in learning.

Prerequisites:

Students must be in their final year of Environmental Science/ Geoscience (BSc) Honours (Must have completed at least 15 FCEs). Also subject to instructor approval.

Class meetings: 5 to 7pm virtually via Zoom until January 31, 2022 (due to COVID restrictions). However, a regular class schedule is set for Thursdays between 5 to 7pm at BV 359.

Zoom link to be provided on Quercus.

Speakers and topics will vary from week to week (unforeseen changes to the schedule may occur and will be announced on Quercus). The current speakers list is provided under Course Schedule. *Note that the expectation is for all students to attend each seminar and be prepared to participate in discussion.* Attendance will be taken at each class for class participation.

Course Expectations:

(1) Phase I Environmental Site Assessment Report: Students are expected to conduct a Phase I ESA of a UTSC land parcel located south of the Pan Am Aquatic Centre (a location map is posted on Quercus). The field investigation and the Phase I report preparation will be a group effort (groups of 3 - depending on the number of students in the course). Subject property subject to change.

Suggested Readings:

Guidance documents for Phase I ESA investigations will be posted on Quercus (ESA link) and through the course LibGuide (Library Resources link on Quercus)

(2) Seminar summaries: Students must attend all seminar series and submit a **maximum 500-word summary (one page single-spaced or up to two-pages if you include diagrams) of six guest seminars (six out of seven)**. Be sure to include your name, the name of the speaker, date and title of the talk. Summaries should focus on the contents of the presentations (summary/critique of the primary points identified in the seminar presentation and discussion).

Note: the summaries must be submitted on Quercus in PDF format one week after the attended seminar lecture (i.e., during the following class). *Late summaries will not be accepted except for documented illness, mandatory religious obligations, or other unavoidable circumstances.*

(3) Capstone Presentations: Student presentations are meant to give students practice speaking in front of an audience and to explore topics of their own choosing in detail. Students will research topics and organize presentations for our class. The topics may be any aspect of environmental geoscience and must be approved by the instructor in advance (see below for deadline). Unless cleared with the instructor, students may not give a presentation similar to one completed/delivered in another class.

Due dates will be established for topics, abstracts, outlines, and seminar dates. Failure to meet deadlines will also be taken into account in final grading. Submit your topic to the instructor for

approval via email as soon as possible and no later than **Thursday January 27th**. Your annotated bibliography will be due via Quercus on **Thursday February 24th**. At that time, you will turn in (soft copy – pdf.) a tentative title, a paragraph or two describing the topic, as well as several pertinent references (5-8 is sufficient).

Students will submit a **detailed outline (1 to 1.5 pages)** of their presentation and also a **brief abstract (one or two paragraphs: 250 words max.)** describing their presentation. You will submit a PDF copy of these documents on Quercus by the start of class, **the week prior to your seminar**. The instructor will review both your abstract and presentation outline and return them to you within a day or two. Additionally, two of your fellow students will review your abstract and outline to provide you with additional feedback. Students are to revise your abstract (perhaps more than once, at my discretion) and submit the final draft of your abstract to the instructor electronically by **Noon on Tuesday before your presentation** so it can be distributed to the class-members on Quercus, the day prior to your seminar (by 5:00 p.m. Tuesday for a Thursday seminar). You do not need to distribute your outline.

You should strive for professionalism in all aspects of this class. Abstracts should be concise (<250 words), well written and free of grammatical and typographical errors. Be sure to tell a complete story with your abstract. The abstract will also serve as an announcement and should include the time, date, and location of your seminar.

Each student will give a **20-minute presentation** followed by a 5 to 10-minute question period. Your seminar should cover several (3-4, or more) related papers in a given area. Tell a complete story about your chosen topic. You are encouraged to give seminar on a topic closely related to your area of interest. You should be thoroughly familiar with the literature on your topic. You should strive to organize your seminar into a cohesive presentation and be selective about what you present. Be sure to target your audience and do not use the jargon of the field. Whereas everyone in the audience is educated, many will be unfamiliar with the topic. Explain concepts simply and clearly and define all terms and acronyms. Be prepared to answer questions after your seminar. The seminar will be timed and should be ± 3 minutes of the allotted 20 minutes.

Students are expected check and use their university email accounts (Quercus announcements will be emailed to your email account). If you are re-writing your abstract, or reviewing another's, A prompt turn-around (less than 24 hours) expected.

Evaluation criteria for the presentation will focus on its thoroughness, scholarliness, and the degree to which it provides new learning not covered in previous coursework. Evaluation forms will be distributed for each presentation, and each student will be able to upload them to Quercus. However, the peer review will not affect the final presentation grades. Reviews will be confidential.

Suggested guidelines for the Seminar Format:

- Give an introduction and background information on your topic.
- Clearly state your objectives.

- Describe the relevant approaches or methodologies. Be sure you fully understand the methods. Give reasons why some methods are used over other approaches.
- Present any data you have found in your research.
- Describe what remains to be done, and what you think you would do if you had the opportunity.
- Explain the significance of your findings (or potential future findings).

Suggested Reading:

Bennett, B. 2001. The three P's of scientific talks: Preparation, practice, and presentation. **Society for Economic Botany Newsletter**. 15: 6-9.

(4) Resume and LinkedIn Profile: *Given that students are in their final year of their undergraduate degree and in transition towards industry and/or graduate studies, a resume and LinkedIn profile is highly recommended and beneficial for students. LinkedIn is a business-oriented networking platform for professional networking and career development. Additionally, it allows individuals to seek and apply for employment. Students are to construct a thorough resume including their education and past experience with the help of Academic Advising & Career Centre.*

(5) Class participation and discussions: Attendance at each seminar is mandatory for all students enrolled. It is expected that students will actively participate by asking questions of the speaker. The effort by students to meet these expectations will be considered in the determination of your final grade.

Grading and Evaluation: Your final grade will be determined by several factors: the Phase I ESA report, the seminar summaries, the quality and content of your seminar, your participation in the class as a whole, and your ability to meet scheduled deadlines. There are no tests or exams for this course. A summary of the evaluation components, key dates and deadlines is provided in the table below.

Assignment	Weight	Deadline
Phase I ESA (group project)	20%	Feb 16, 2022 – 11pm
Seminar Summaries (6 out of 7) – 5%/each	30%	Following week Wednesday 11pm
Capstone Presentation		
Annotated Bibliography	5%	Mar 3, 2022 – 11pm
Final Presentation	25%	As assigned
Resume (5%) and LinkedIn Profile (5%)	10%	Mar 17, 2022 – 11pm
Attendance and Class Participation/ Discussion	10%	-
Total	100%	-

Course Schedule:

Week	Date	Topic
1	Jan 13, 2022	Introduction
2	Jan 20, 2022	Phase I ESA Instruction and Professional Associations
3	Jan 27, 2022	Seminar: Ms. Andrea Fernandes – EXP Services Inc.- Topic: Environmental Site Assessment and Remediation
4	Feb 3, 2022	Seminar: ALS Environmental Labs – Topic: Environmental Analytical Chemistry
5	Feb 10, 2022	Seminar: Mrs. Cheryl- Anne Ross, Aboud & Associates Inc.– Topic: Ecology and Natural Sciences
6	Feb 17, 2022	Seminar: Mr. Owais Khurshid, Impact Assessment Agency of Canada Topic: Environmental Impact Assessment
7	Feb 24, 2022	Reading Week- No Class
8	Mar 3, 2022	Seminar: Dr. Andrew Tam, Dept. National Defense
9	Mar 10, 2022	Seminar: Mrs. Ashley LeBlanc, Detour Gold Corporation
10	Mar 17, 2022	Seminar: Toronto Region and Conservation Authority
11	Mar 24, 2022	Student Presentations
12	Mar 31, 2022	Student Presentations
13	April 7, 2022	Student Presentations

Seminar presentations topics subject to change.

Plagiarism: Assignments are checked for plagiarism. Please consult the University Calendar for a discussion and outline of the policy on plagiarism and academic integrity (also see proceeding section below). The sanctions can be severe. If, after reviewing the University policy, you are uncertain about what constitutes plagiarism, talk to your course instructor.

Academic Integrity: Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining and/or providing unauthorized assistance on assignments

In academic work:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/>).

Please consult the University Calendar for information about grade distribution and academic conduct.

Handing In Assignments: Students are responsible for making sure that all course work is uploaded to Quercus and/or emailed to the instructor (if necessary). Students who mail assignments in, place work on the floor outside an office, or slip assignments under a door, do so at their own risk.

Lost or misplaced assignments: It is your responsibility to keep a photocopy of your work, and to make more than one disk copy of your work. Excuses are not accepted in the case of lost or misplaced work.

Absences: If you need to miss a practical or term test for any legitimate reason, you must submit appropriate documentation within **three** business days of your absence. If the reason for your absence is medical, an official UTSC medical note must be completed by a doctor who examined you while you were ill/injured (i.e. not after the fact). The medical note can be downloaded at: http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf. Note that conditions ranked as mild or negligible will not be considered a valid excuse.

Missed term work: If a legitimate reason prevents you from submitting a piece of term work by its posted deadline, you must submit appropriate documentation within **three** business days of your absence. If the reason is medical, an official UTSC medical note must be completed by a doctor who examined you while you were ill/injured (i.e. not after the fact). The medical note can be downloaded at: http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf. Note that conditions ranked as mild or negligible will not be considered a valid excuse.

Accessibility: Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodation, please feel free to approach the instructor and/or the *AccessAbility* Services Office as soon as possible. The instructor will work with you and *AccessAbility* Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC *AccessAbility* Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

Students are encouraged to review the Calendar for information regarding all services available on campus.

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