



**ENVIRONMENTAL SCIENCE PROGRAM  
COURSE OUTLINE**

1. **Course:** Environmental Science 503 – Environmental Assessment and Hearings (Course Number 15846)

**Lecture Section(s):** L01 TuTh 12:30-13:45 SB 144 **WINTER 2018**

**Instructor(s):** Dr. W.N. Holden ES 416 403-220-4886 [wnholden@ucalgary.ca](mailto:wnholden@ucalgary.ca) Office Hours: T & R 14:30-16:45.

**Course Site Name on Desire 2 Learn (D2L):** W2018ENSC503L01-ENSC503 – L01 (Winter 2018)

**USC Specialized Programs Office:** EEEL 426 403-220-8600 [ensc@ucalgary.ca](mailto:ensc@ucalgary.ca)

2. **Prerequisite(s):** Open only to students in the Environmental Science program, or by consent of the Program Director.

3. **Course Description:** An introduction to federal and provincial environmental impact assessment (EIA), which is implicit in much of Environmental Science 401, 501 and 502.

4. **Course Objectives:** By the end of this course students will have a solid grounding in environmental impact assessment. Students will acquire an advanced knowledge of the jurisdictional aspects of environmental impact assessment, will acquire an advanced knowledge of the principles of environmental impact assessment, including determination of environmental impacts, alternatives considered, cumulative effects, social impact assessment, historical environmental impact assessment, economic impact assessment, environmental impact assessment in the developing world, and the ethical aspects of environmental impact assessment.

5. **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

<b>Lectures</b>	Mid-term Exam 1 (1 March 2018)	40 %
	Mid-term Exam 2 (12 April 2018)	10 %
	Class Participation	10 %
<b>Major Project</b>	EIS Presentation (group project)	40 %

Grading Scale							
A+	100 %	B+	80 %	C+	65 %	D+	50 %
A	90 %	B	75 %	C	60 %	D	45 %
A-	85 %	B-	70 %	C-	55 %	F	0 %

A grade of A+ is given for a mark of 100%. If, for some reason, the distribution of grades determined using the aforementioned conversion chart appears to be abnormal the instructor reserves the right to change the grade conversion chart if the instructor, at the instructor's discretion, feels it is necessary to more fairly represent student achievement. Note: these boundaries will only be changed if such a change **causes an increase** in student grades. Tests and class participation will be marked on a numerical (percentage) basis. For the group work, at the end of the course, each student will give a weight to the contribution of their group members to reflect the contribution of their group members to the project. The instructor reserves the right to change this weighting in the interests of fairness.

Class Participation will be marked on the basis of how well students participate in classroom discussion; attendance and active participation in all classes is key to your success in this course. The course grade is calculated by using the weights indicated above and then converted into a letter grade. As a guide to determining standing, the above letter grade equivalences will generally apply.

6. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.3](#) of the University Calendar. Students unable to write the examination because of

documented illness; family emergency or religious observance will have the weight shifted onto other components of the course. **Please note that the coordinator needs to be informed of any missed components within 48 hours.**

7. **Course Materials:** Hanna, K.S. (2009). *Environmental Impact Assessment: Practice and Participation*. Second Edition. Toronto: Oxford University Press (required); Noble, B.F. (2015). *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice*. Toronto: Oxford University Press (required).
8. **Examination Policy:** There will not be a final examination in this course; however two midterm examinations will be held in class with the first mid-term to be written on Thursday 1 March and the second midterm to be written on Thursday 12 April. **THERE WILL BE NO MAKEUP OR DEFERRED EXAMINATIONS** under any circumstances, nor may the examinations be written early. Students unable to write the examination because of documented illness; family emergency or religious observance will have the weight shifted onto other components of the course. All examinations will be closed book examinations **non-programmable calculators are allowed**. Should the writing of a midterm examination for an entire lecture section become impossible due to events beyond the control of the instructor (such as, and not exclusively consisting of; inclement weather, instructor's illness, unavailable facilities, or other "acts of fate") the midterm examination will be written in the next possible class. Students should also read [Section G](#) on Examinations in the Calendar. Note: you will not be allowed to discuss your grade with the instructor for 48 hours after receiving your examination and, if you wish to discuss your grade with the instructor, you must do so within 14 days after receiving your examination.
9. **Ethics Statement:** Your papers will not be used for research purposes. Students in the course are not expected to participate as subjects or researchers
10. **Academic Integrity:** Each student in this course is expected to abide by the University of Calgary code of academic conduct. Any work submitted by a student in this course for academic credit will be the student's own work. In the case of group assignments, all members of the group are responsible for the honesty and integrity of the document. You are encouraged to work together and to discuss information and concepts covered in lecture with other students. You can give "consulting" help to or receive "consulting" help from other students.
11. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**
  - (a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties
  - (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
  - (c) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at [http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf).  
  
Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Program Director of the Environmental Science Program, Dr. Mary Reid by email at [mreid@ucalgary.ca](mailto:mreid@ucalgary.ca).
  - (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call **220-5333** for assistance. Use any campus phone, emergency phone or the yellow phones located near most parking lot entrances.
  - (e) **Freedom of Information and Protection of Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPPA). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.

- (f) **Student Union Information:** VP Academic Phone: 403 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca)  
SU Faculty Rep. Phone: 403 220-3913 Email: [science1@su.ucalgary.ca](mailto:science1@su.ucalgary.ca), [science2@su.ucalgary.ca](mailto:science2@su.ucalgary.ca), [science3@su.ucalgary.ca](mailto:science3@su.ucalgary.ca)  
Student Ombuds Office: 403 220-6420 Email: [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca); <http://ucalgary.ca/provost/students/ombuds>
- (g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, ***your cell phone should be turned off*** unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (h) **Universal Student Ratings of Instruction (USRI):** At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.

### Readings List

The lectures for this course will be based upon the following readings. We will commence with these readings on the first class and proceed with through them in linear order, with the exception of the lecture for Unit IX, which will be scheduled based upon the availability of a guest lecturer.

#### **Unit I: Introduction to EIA**

Hanna, K.S. (2009). "Environmental Impact Assessment: Process, Setting, and Efficacy" In Hanna, K.S. (2009). *Environmental Impact Assessment: Practice and Participation* (Second Edition) Toronto: Oxford University Press, 3-17.

Noble, B.F. (2015). *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice*. Toronto: Oxford University Press, pp.2-21

#### **Unit II: Jurisdiction to Compel EIA in Canada**

Holden, W.N. (2006). "One Concept and Two Countries: Federal Government Jurisdiction to Make Environmental Law in Australia and Canada." *Australasian Canadian Studies*. 24 (1): 51-81 (posted on D2L).

Gibson, R.H. and K.S. Hanna (2009). "Progress and Uncertainty: The Evolution of Federal Environmental Assessment in Canada." In Hanna, K.S. (2009). *Environmental Impact Assessment: Practice and Participation* (Second Edition) Toronto: Oxford University Press, 18-36.

#### **Unit III: EIA in Alberta**

Creasey, R. and K. Hanna (2009). "Alberta: Environmental Impact Assessment in a Rapid Growth Setting" In Hanna, K.S. (2009). *Environmental Impact Assessment: Practice and Participation* (Second Edition) Toronto: Oxford University Press, 318-332.

#### **Unit IV: EIA in Canada**

Noble, B.F. (2015). *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice*. Toronto: Oxford University Press, pp. 29-36, 76-88, 225-226.

#### **Unit V: Screening and Scoping**

Baker, D. and E. Rapaport (200). "The Science of Assessment: Identifying and Predicting Environmental Impacts." In Hanna, K.S. (2009). *Environmental Impact Assessment: Practice and Participation* (Second Edition) Toronto: Oxford University Press, 37-58.

Noble, B.F. (2015). *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice*. Toronto: Oxford University Press, pp. 72-74.



## ENSC 503 Lecture Schedule: Winter 2018

<b>Date</b>	<b>What is Happening</b>
January 9	Lecture by Holden (Unit I)
January 11	Lecture by Holden (Unit I)
January 16	Lecture by Holden (Unit II)
January 18	Lecture by Holden (Unit II)
January 23	Lecture by Holden (Unit III)
January 25	Lecture by Holden (Unit III)
January 30	Lecture by Holden (Unit IV)
February 1	Lecture by Holden (Unit IV)
February 6	Lecture by Holden (Unit IV)
February 8	Lecture by Holden (Unit V)
February 13	Lecture by Holden (Unit VI)
February 15	Lecture by Holden (Unit VII)
<b>February 20</b>	<b>Reading Week</b>
<b>February 22</b>	<b>Reading Week</b>
February 27	Lecture by Holden (Unit VII)
<b>March 1</b>	<b>First Midterm Examination</b>
March 6	Possible Guest Lecture (Unit IX)
March 8	Lecture by Holden (Unit VIII)
March 13	Lecture by Holden (Unit VIII)
March 15	Lecture by Holden (Unit VIII)
March 20	Lecture by Holden (Unit VIII)
March 22	Lecture by Holden (Unit X)
March 27	Lecture by Holden (Unit XI)
March 29	Student Presentations (to be determined)
April 3	Student Presentations (to be determined)
April 5	Student Presentations (to be determined)
April 10	Student Presentations and USRI
<b>April 12</b>	<b>Second Midterm Examination</b>