Facility of Science Course Syllabus
Environmental Science Program
**ENVS 2000: Urban Field School**  
Summer 2018

**Instructor:** Dr. James Steenberg  
**Office Hours:** By appointment  
**Email:** james.steenberg@dal.ca  
**Phone:** 902-210-4400  
**Course Website:** Brightspace

**Class Hours:**  
Monday to Friday, 9:00 AM to 4:00 PM (approximate)  
LSC (Biology) 5012  
April 30 to May 11, 2018

**Labs/Tutorials:**  
Integrated with class time

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**Course Description:**  
This field course offers an introduction to urban environmental science by examining the role of humans in ecosystems and how humans change ecosystem processes and functions within urban areas. Areas of focus will include forests, soils, watersheds, parks and protected areas, green infrastructure, and the built environment. Students gain hands-on experience in environmental science techniques during excursions to different settings within Halifax Regional Municipality.

**Course Objectives:**

Students can expect to gain:

- An understanding of urban environments and the human processes that shape them.
- An understanding of the challenges facing the sustainability of urban environments.
- Applied knowledge and hands-on skill development of environmental field methods, data collection and analysis, and communication.
Course Material:

- There is no required textbook for this course, but readings will be posted to Brightspace.

- A notebook will be provided to take field notes.

- There will be a daily lunch break, but it is recommended that students also bring snacks and fluids for our time in the field.

- A substantial portion of this course will be spent in the field and we will be outdoors rain or shine. It is critical that you dress appropriately for the weather and for visiting field sites, including (but not limited to) appropriate footwear, layered clothing, and rain gear.

- Communication will be done through Brightspace and Dal email. Because this is an intensive two-week course, it will be important to frequently check Brightspace and email for updates.

Student Evaluation:

<table>
<thead>
<tr>
<th>Type</th>
<th>Evaluation</th>
<th>Weight</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Participation in class activities and discussion</td>
<td>10%</td>
<td>On-going</td>
</tr>
<tr>
<td>Individual</td>
<td>Lab 1: Location and GPS</td>
<td>10%</td>
<td>May 01</td>
</tr>
<tr>
<td>Individual</td>
<td>Lab 2: Sampling and Data Collection</td>
<td>10%</td>
<td>May 02</td>
</tr>
<tr>
<td>Individual</td>
<td>Lab 3: Urban forests</td>
<td>10%</td>
<td>May 04</td>
</tr>
<tr>
<td>Individual</td>
<td>Lab 4: Data analysis</td>
<td>10%</td>
<td>May 09</td>
</tr>
<tr>
<td>Individual</td>
<td>Field notes (two spot checks)</td>
<td>5%</td>
<td>May 04 &amp; May 11</td>
</tr>
<tr>
<td>Group</td>
<td>Final report – environmental project proposal</td>
<td>20%</td>
<td>May 11 <em>11:59 PM</em></td>
</tr>
<tr>
<td>Group</td>
<td>Presentation</td>
<td>20%</td>
<td>May 11</td>
</tr>
<tr>
<td>Group</td>
<td>Peer review</td>
<td>5%</td>
<td>May 11</td>
</tr>
</tbody>
</table>
All assignments must be submitted via the Dropbox on Brightspace by **9:00 AM on the date the assignment is due**. Assignments that are late, without prior late-submission approval from the instructor or supported with a doctor’s note, will be deducted 10% for each day past the due date.

**Grading System:**

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>(90-100)</td>
</tr>
<tr>
<td>A</td>
<td>(85-89)</td>
</tr>
<tr>
<td>A-</td>
<td>(80-84)</td>
</tr>
<tr>
<td>B+</td>
<td>(77-79)</td>
</tr>
<tr>
<td>B</td>
<td>(73-76)</td>
</tr>
<tr>
<td>B-</td>
<td>(70-72)</td>
</tr>
<tr>
<td>C+</td>
<td>(65-69)</td>
</tr>
<tr>
<td>C</td>
<td>(60-64)</td>
</tr>
<tr>
<td>C-</td>
<td>(55-59)</td>
</tr>
<tr>
<td>D</td>
<td>(50-54)</td>
</tr>
<tr>
<td>F</td>
<td>(&lt;50)</td>
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</tbody>
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**Course Schedule:**

We will meet every morning in the classroom (LSC 5012) before going to any field or lab sessions. Please note: The list and schedule of topics and field trips are subject to change. The uncertainties of visiting field sites the busy schedule of our gracious hosts practitioners may translate to unexpected changes.

<table>
<thead>
<tr>
<th>Class</th>
<th>Lecture Topics</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1: April 30</td>
<td>AM: Welcome, course overview, safety training &lt;br&gt;PM: Location and GPS</td>
<td>AM: Class &lt;br&gt;PM: Field</td>
</tr>
<tr>
<td>Class 2: May 01</td>
<td>AM: Sampling and Data Collection &lt;br&gt;PM: Sampling and Data Collection</td>
<td>AM: Field &lt;br&gt;PM: Computer lab</td>
</tr>
<tr>
<td>Class 3: May 02</td>
<td>AM: Bird survey in Point Pleasant Park &lt;br&gt;&lt;b&gt;Host:&lt;/b&gt; Mirabai Alexander &lt;br&gt;PM: Case study – Overview of urban forest ecosystems</td>
<td>AM: Field &lt;br&gt;PM: Class/field</td>
</tr>
<tr>
<td>Class 4: May 03</td>
<td>AM: Case study – Sampling protocols and field measurements for urban forest ecosystems &lt;br&gt;PM: Case study – Data management and analysis for urban forest ecosystems</td>
<td>AM: Field &lt;br&gt;PM: Computer lab</td>
</tr>
<tr>
<td>Class 5: May 04</td>
<td>AM: Green infrastructure and urban resilience &lt;br&gt;PM: Environmental projects proposal development</td>
<td>AM: Field &lt;br&gt;PM: Class</td>
</tr>
<tr>
<td>Class</td>
<td>Lecture Topics</td>
<td>Location</td>
</tr>
<tr>
<td>------------</td>
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</tbody>
</table>
| Class 6: May 07 | AM: Facilitated work session  
PM: Environmental data principles  
**Guest Speaker:** David Foster, Dalhousie University | AM: Class  
PM: Computer lab |
| Class 7: May 08 | AM: Data analysis  
PM: Common Roots Urban Farm  
**Host:** Jayme Melrose, Partners for Care | AM: Computer lab  
PM: Field |
| Class 8: May 09 | AM: Miller Material Recovery Facility  
**Host:** Chloe Kennedy, Halifax Regional Municipality  
PM: Socio-demographics | AM: Field  
PM: Computer lab |
| Class 9: May 10 | AM: Neighbourhoods and the built environment  
PM: Facilitated work session | AM: Field  
PM: Class |
| Class 10: May 11 | AM: Facilitated work session  
PM: Presentations and course wrap-up | AM: Class  
PM: Class |

**Course Policies**

**Attendance:**

Attendance and thoughtful participation is a key component of this course and will be worth **10% of your final grade.** Participation helps to better absorb class concepts and apply them in later assignments. Participation includes attendance, full participation in field activities, and engaging in class discussion. Because this is a two-week intensive course, full attendance is critical. Missed classes without appropriate approved accommodation will be reflected in your participation grade.

Some of the course time slots are designated as facilitated work sessions, which are meant to be used by students for the preparation of group work. These can be done in the classroom where the instructor and TAs will be available or can be done independently elsewhere.
Ground Rules:

We view teaching as a collaboration between Instructors, TAs, and students. Our collective goal is for each of us to increase our knowledge base and hone our research, analytical, and writing skills within the intersections of environment, sustainability, and cities. Each of us has responsibilities to ensure the success of this relationship. As Instructors and TAs, we commit to:

- Ensuring that course materials are instructive and engaging
- Communicating expectations clearly to students
- Responding to and integrating student feedback into the course
- Provoking questions, curiosity, and constructive feedback from students
- Providing grades that are transparent and consistent among all students

In joining this class, students commit to:

- Attending and engaging in all course components
- Respecting alternative viewpoints that might not coincide with their own
- Completing and reflecting on the related readings
- Arriving on time to all elements of the course
- Remaining curious about and critical of the material covered

Accommodation Policy for Students

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic protected under Canadian Human Rights legislation. The full text of Dalhousie’s Student Accommodation Policy can be accessed here: https://www.dal.ca/dept/university_secretariat/policies/academic/student-accommodation-policy-wef-sep--1--2014.html

Students who require accommodation for classroom participation or the writing of tests and exams should make their request to the Advising and Access Services Centre (AASC) prior to or at the outset of the regular academic year. More information and the Request for Accommodation form are available at www.dal.ca/access

Academic Integrity

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. It is the responsibility of all students to be familiar with behaviours and practices associated with academic integrity. Instructors are required to forward any suspected cases of plagiarism or other forms of academic cheating to the Academic Integrity Officer for their Faculty.
The Academic Integrity website (academicintegrity.dal.ca) provides students and faculty with information on plagiarism and other forms of academic dishonesty, and has resources to help students succeed honestly. The full text of Dalhousie's Policy on Intellectual Honesty and Faculty Discipline Procedures is available here: www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.html

Please note that Dalhousie subscribes to plagiarism detection software that checks for originality in submitted papers. Any paper submitted by a student at Dalhousie University may be checked for originality to confirm that the student has not plagiarized from other sources. Plagiarism is considered a very serious academic offence that may lead to loss of credit, suspension or expulsion from the University, or even the revocation of a degree. It is essential that there be correct attribution of authorities from which facts and opinions have been derived. At Dalhousie, there are University Regulations which deal with plagiarism and, prior to submitting any paper in a course; students should read the Policy on Intellectual Dishonesty contained in the Calendar.

Furthermore, the University’s Senate has affirmed the right of any instructor to require that student assignments be submitted in both written and computer readable format, e.g.: a text file or as an email attachment, and to submit any paper to a check such as that performed by the plagiarism detection software. As a student in this class, you are to keep an electronic copy of any paper you submit, and the course instructor may require you to submit that electronic copy on demand. Use of third-party originality checking software does not preclude instructor use of alternate means to identify lapses in originality and attribution. The result of such assessment may be used as evidence in any disciplinary action taken by the Senate.

Student Code of Conduct

Dalhousie University has a student code of conduct, and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course. In general:

“The University treats students as adults free to organize their own personal lives, behaviour and associations subject only to the law, and to University regulations that are necessary to protect

- the integrity and proper functioning of the academic and non – academic programs and activities of the University or its faculties, schools or departments,

- the peaceful and safe enjoyment of University facilities by other members of the University and the public,

- the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises, and

- the property of the University or its members.”
The full text of the code can be found here:

## Services Available to Students

The following campus services are available to help students develop skills in library research, scientific writing, and effective study habits. The services are available to all Dalhousie students and, unless noted otherwise, are free.

<table>
<thead>
<tr>
<th>Service</th>
<th>Support Provided</th>
<th>Location</th>
<th>Contact</th>
</tr>
</thead>
</table>
| **General Academic Advising**  | Help with                                                                       | Killam Library Ground floor Rm G28 Bissett Centre for Academic Success | In person: Killam Library Rm G28 By appointment:  
  - e-mail: advising@dal.ca  
  - Phone: (902) 494-3077  
  - Book online through MyDal |
| **Dalhousie Libraries**        | Help to find books and articles for assignments Help with citing sources in the text of your paper and preparation of bibliography | Killam Library Ground floor Librarian offices | In person: Service Point (Ground floor) By appointment: Identify your subject librarian (URL below) and contact by email or phone to arrange a time: http://dal.beta.libguides.com/sb.php?subject_id=34328 |
| **Studying for Success (SFS)** | Help to develop essential study skills through small group workshops or one-on-one coaching sessions Match to a tutor for help in course-specific content (for a reasonable fee) | Killam Library 3rd floor Coordinator Rm 3104 Study Coaches Rm 3103 | To make an appointment:  
  - Visit main office (Killam Library main floor, Rm G28)  
  - Call (902) 494-3077  
  - email Coordinator at: sfs@dal.ca  
  - Simply drop in to see us during posted office hours  
  **All information can be found on our website:** www.dal.ca/sfs |
| **Writing Centre**             | Meet with coach/tutor to discuss writing assignments (e.g., lab report, research paper, thesis, poster) - Learn to integrate source material into your own work appropriately - Learn about disciplinary writing from a peer or staff member in your field | Killam Library Ground floor Learning Commons & Rm G25 | To make an appointment:  
  - Visit the Centre (Rm G25) and book an appointment  
  - Call (902) 494-1963  
  - email writingcentre@dal.ca  
  - Book online through MyDal  
  **We are open six days a week**  
  **See our website:** writingcentre.dal.ca |