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Lecture Hours:  Wednesdays, 1:00-3:00 PM  
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Course Description:  This course introduces students to primary concepts and issues related to the field of environment and human health. Case studies highlighting important issues and the range of factors involved in modulating environmental exposures and health outcomes in various populations will be explored. As part of this, a primary objective is for students to develop skills in identifying, critically analyzing and reviewing key literature in the environmental and health sciences. Topics to be introduced in lectures and readings will reflect the interdisciplinary nature of the field of environmental health, covering areas from biology, toxicology, environmental science and chemistry, risk assessment to public health and geography.  

The course will start by exploring the concepts of “health” and “environment” and how the two are interconnected. This will be followed by an overview of the fields of environmental toxicology and epidemiology, and an examination of related tools and methods to evaluate scientific evidence. Following this, a range of important topics and case studies in environment and health will be examined to highlight the multifaceted ways health and environment are interconnected. Concepts related to vulnerability will be discussed to help us understand how certain populations are particularly at risk to exposures and health outcomes. This will include an overview of topics such as the neurodevelopmental impacts of pesticide exposures in children, climate change impacts on the health of the elderly and aboriginal peoples and the developmental origins of health and disease.  

Educational Objectives:  

Upon course completion, students will be expected to:  

1. have a basic understanding of core concepts central to environment and health,  
2. have an understanding of the complex nature of environment and health and how various biological, physiological, developmental and socioeconomic and cultural factors may
impact the health of individuals, communities and populations at all levels, ranging from
the local to the global level, and

3. have acquired the skills necessary to research and critically assess available information
on topics related to environment and health.

Readings: The course relies on a diverse range of literature sources available through the
University of Toronto’s electronic library system (links provided via the course’s website on
Quercus). No text book purchase required.

Quercus: The course uses the online management system Quercus for the purposes of
communication between instructor, teaching assistant and student. Students will be provided
access to all readings in the form of links provided in the Schedule of Topics and Readings file
made available in the “Course Info” section (in “Modules”) of the course’s website on Quercus.

To access the Quercus-based course website, go to the UofT portal login page at
http://portal.utoronto.ca and log in using your UTORid and password. If you need information on
how to activate your UTORid and set your password for the first time, please go to
http://www.utorid.utoronto.ca. The Help Desk at the Information Commons and telephone
assistance under 416-978-HELP can also answer other related questions.

Once you have logged into the portal using your UTORid and password, you will find a link on
the Quercus “Dashboard” to this course website, along with links to all your other Quercus-based
courses. At times, the instructor or teaching assistant may decide to send out important course
information by e-mail. To this end, all UofT students are required to have a valid UofT e-mail
address. You are responsible for ensuring that your UofT e-mail address is set up AND properly
entered in the ACORN system.

Evaluation:
• Term paper proposal = 15% (Due Date: Oct. 9, 2019)
• Midterm exam (short answer and multiple choice based on lectures and reading
materials) = 25%
  (Date: Oct. 16, 2019)
• Final exam (short answer and multiple choice) based on all course content including
readings, lectures = 30% (Date: TBA)
• Literature Review Paper = 30% (Due Date: Nov. 27, 2019)

Proposal for Literature Review (Due Oct. 9, 2019):
Students will submit a 1 page (single-spaced, 12 point font) proposal in advance of their
literature review papers, which will outline the topic chosen for further examination. The
proposal is expected to incorporate the following elements:
• A title for proposed topic,
• A clear statement of purpose OR goal (may also be phrased as a research question),
A brief background to the topic of focus,
  - This should include a description of topic’s significance in an environmental health context, and
- An initial list of keywords and search engines (e.g. Scopus, Google Scholar) which will be used to conduct the literature search (point form accepted).

THE PROPOSAL IS EXPECTED TO INCLUDE REFERENCES FOR SOURCES OF INFORMATION; the full citations for which are to be placed in a section at the end of the proposal (using a recognized style of referencing, e.g. APA, MLA). For in-text references, please use (NAME, PUBLICATION YEAR) format. Only the first page will be graded if students go over the page limit. Cited references may be placed on an additional page, however.

Proposals are to be submitted online through the Quercus-based website for the course (Deadline: 11:59 PM).

Library Session: A librarian from the Gerstein Library, Heather Cunningham, will give an informative, in-class overview of how to best access and use electronic resources at UofT on September 25, 2019. This session will be tailor-made to meet the literature search expectations regarding the proposal and final paper for this course.

Literature Review Paper (Due Nov. 27, 2019):
Students will select an environment and health topic of interest which is related to the course as the focus for their term papers. The topic chosen should be sufficiently scoped to allow for an in-depth analysis of the literature and should demonstrate that a systematic, methodological approach was taken in the scoping process of topic and literature of focus.
The intent and purpose of the paper is to conduct a literature review of a chosen topic. Papers should include the following sections:
- **Introduction** to the topic, including a description of its importance in an environment and health context. For this, it is expected that students provide a more detailed and rigorous discussion (including more references to literature) than that outlined in the initial proposal. The introduction should also include a clear statement regarding the paper’s purpose, goal, or research question. This may be the same as that used in the proposal. However, in most cases, it is expected that the original stated the purpose, goal or research question has undergone refinement during the information gathering and analysis phase.
- **Methods:** Similar to that expected in the public health sciences, papers should include a method section that details the methods used to identify scholarly literature sources for review, including a description of the keywords and databases which were used (e.g. Medline) and the inclusion/exclusion criteria employed to choose articles.
- **Discussion:** This section is expected to comprise the bulk of the paper; involving an in-depth examination, analysis and discussion of current (peer-reviewed) literature on the topic. Students are expected to not only assess the available evidence but also the current
state of knowledge and scientific rigor on the chosen topic in a systematic, objective manner. Issues that may be addressed as part of the discussion include identified gaps in knowledge, strengths/limitation in policy/regulations, an identification of needs in terms of future research and political action, etc., as they relate to the specific topic areas.

- References Cited: Students must list the references cited in the paper in a separate section at the end, using a recognized format (see below for further details). This should ONLY include those references cited in the paper. NO BIBLIOGRAPHY please.

See criteria for the evaluation of written assignments below.

Submission of Term Papers

All written assignments must:
- Include a title, your name and student number
- Have 1.15 spacing, 12 point font and 1” margins
- Include page numbers
- Be between 2,500 and 3,000 words; a word count for main body of paper (excluding references cited section) must be provided on front page or at the end of the paper
- Be properly referenced with in-text citations to sources (see note on Plagiarism below)
- Include a “References Cited” section, containing all references cited in the paper
  - For in-text citations, please use (NAME, YEAR) format
  - For the references cited section, please use only the following recognized formats: APA, CBE/CSE, ASA or Chicago

Papers are to be submitted electronically via the course’s website on Quercus on (or before) the due date (Deadline: 11:59 PM), using the Turnitin.com link provided. Papers will undergo a review of textual similarity and detection of possible plagiarism using this software. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

If you object to using Turnitin.com, please see the course instructor to establish appropriate alternative arrangements for submission of your written assignments prior to the submission deadline.

Email and Communication: The TA should be considered the first point of contact when it comes to general inquiries about the course and assignments. Please contact the course instructor, Dr. Wiseman, directly, if requesting an accommodation or an extension.

Students are expected to familiarize themselves with the course syllabus and expectations regarding course assignments. Should you have a question about course assignments or exams, it is ALWAYS good practice to read the syllabus first to find the answer, to avoid sending any
unnecessary emails. For more substantive questions regarding assignments such as choosing a
topic for your literature review, you will be expected to come to office hours to discuss directly
with the course instructor.

Please do not expect responses to emails on evenings and weekends, just before class or
within 24 hours of exams or assignment due dates.

Late Penalties and Deadline Extensions:

Assignments should be handed in on the due date. For lateness, a penalty of 3% per day
(including weekends) will be deducted from the mark for the first 7 days. After this 7-day period,
papers will receive a grade of 0%. Extenuating circumstances may arise that impact your ability
to complete an assignment on time. Please discuss these issues with your instructor to make
alternative arrangements for submission. Students are expected to submit a completed
University’s official Verification of Illness or Injury Form (former Medical Certificate) to the
course instructor for medical-based extension requests. A copy can be found on the web at:
http://www.illnessverification.utoronto.ca/

Please note: Students must submit an ORIGINAL Verification of Illness or Injury Form to the
course instructor for late assignments. Should this form be needed for more than one professor,
students must arrange a time outside of class to present the original to the course instructor. Only
then will a copy be accepted. Submissions via email will not be accepted.

In the event that a Verification of Illness or Injury Form can’t be obtained, only the following
can be considered acceptable documentation for absences and requests for extensions:

- Student Health or Disability Related Certificate: Provided only by doctors internal to
  UofT that can document health-related issues in a confidential manner,
- A Letter from your College Registrar, and
- Accessibility Services Letter (see below for details regarding accommodations)

Students are advised to keep all rough and draft work, as well as hard copies of their research
papers and assignments, until the grades been posted on ACORN. Both the proposal and research
paper also needs to be submitted online through the Quercus-based course website.

Late assignments must not be emailed or slipped under office doors. Please note, weak time
management skills do not constitute extenuating circumstances.

Criteria for evaluation of written assignments:

The following criteria will be used to grade papers:

1) Clarity in writing and referencing: The paper is expected to be free of spelling and
grammatical errors. A recognized referencing style must be used in a consistent manner;
references are ALWAYS to be cited accurately in the paper. If references appear in the body of the paper but not in the “references cited” list and vice versa, this will negatively impact your grade.

2) Clarity and logic in structure: The paper should be written in a coherent, logical manner. The logic of the structure is determined by the purpose, which is to test a hypothesis, answer a research question or defend a thesis statement.

3) Precision and accuracy. Precision means saying exactly and specifically what you mean, avoiding vague generalities. Accuracy refers to absence of major factual errors.

4) Analysis: Student essays are expected to demonstrate originality in thought and to summarize and assess information in a critical, objective manner. The term paper will be evaluated on the defensibility of their analysis in terms of their use of evidence and logical coherence.

**Writing Resources:** Students may wish to visit the “Writing at the University of Toronto” website for useful tips and writing resources at: [www.writing.utoronto.ca](http://www.writing.utoronto.ca).

See also "How Not to Plagiarize“ and related advice on how to properly and effectively integrate sources of information. At: [http://advice.writing.utoronto.ca/using-sources/](http://advice.writing.utoronto.ca/using-sources/)

Information about the on campus English Language Learning program (ELL) is available at: [http://www.artsci.utoronto.ca/current/advising/ell](http://www.artsci.utoronto.ca/current/advising/ell)

Students can find information about college writing centres at [http://www.writing.utoronto.ca/writing-centres/arts-and-science](http://www.writing.utoronto.ca/writing-centres/arts-and-science).

**PLAGIARISM**

Please note that according to the University’s Code of Behavior on Academic Matters, it is an offence for a student to:

1. “represent as one’s own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e., to commit plagiarism."

2. “submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course or program of study in the University or elsewhere.

3. “submit for credit any academic work containing a purported statement of fact or reference to a source which has been concocted.”

See “Code of Behaviour on Academic Matters” on the Uof T Governing Council website at this address: [http://www.governingcouncil.utoronto.ca/policies/behaveac.htm](http://www.governingcouncil.utoronto.ca/policies/behaveac.htm)
See also "How Not to Plagiarize" and related advice on how to integrate sources of information. At: http://www.writing.utoronto.ca/advice/using-sources

Cases of suspected plagiarism will be addressed in accordance with the procedure established by the Code of Behaviour on Academic Matters.

**Use of Electronic Items:** This course supports the use of laptops, tablets and related electronic items in-class for note taking/learning purposes. However, it is to be emphasized that the Faculty of Arts and Science has a strict policy regarding the taping/recording of lectures. As stated in the Academic Handbook for faculty: "Lectures and course materials prepared by the instructor are considered by the University to be an instructor’s intellectual property covered by the Canadian Copyright Act. Students wishing to record lecture or other course material in any way are required to ask the instructor’s explicit permission, and may not do so unless permission is granted. This includes tape recording, filming, photographing PowerPoint slides, Blackboard materials, etc. Such permission is only for that individual student’s own study purposes and does not include permission to “publish” them in any way. It is absolutely forbidden for a student to publish an instructor’s notes to a website or sell them in other form without formal permission.”

Taping/recording is allowed in certain circumstances (i.e. to support the learning needs of students registered with Accessibility Services, where stipulated). Please contact the instructor should this be necessary.

**Accessibility Needs:** The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible at 416-978-8060; accessibility.services@utoronto.ca (website: http://www.accessibility.utoronto.ca/).