

ENV341 H1F: PLANETARY HEALTH (formerly Environment and Human Health)

I. CONTACTS

Instructor: Prof. Clare Wiseman

Office: Earth Sciences, Rm. 2097

Office Hours (held virtually via Zoom): TBA

Email: clare.wiseman@utoronto.ca

Tutorial Assistant: Luyao Zhang

Email: ly.zhang@mail.utoronto.ca

II. COURSE OVERVIEW

Course Description: This course introduces students to primary concepts and issues related to the field of planetary health. Case studies highlighting important issues and the range of factors involved in modulating associations between environmental exposures and human 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 planetary health sciences. Topics to be introduced in lectures and readings will reflect the interdisciplinary nature of planetary health, covering areas from toxicology, environmental science and chemistry to public health and geography.

The course will start by exploring primary concepts and the connections between human and planetary health. This will be followed by an overview of the fields of environmental toxicology and public health sciences, and an examination of related tools and methods to evaluate scientific evidence. Following this, a range of important topics and case studies in planetary health will be examined to highlight the multifaceted ways health and environment are interconnected. Concepts related to vulnerability will be emphasized to help us understand how certain populations such as children and the elderly are particularly at risk to exposures and health outcomes.

Educational Objectives: Upon successful course completion, students will be expected to:

1. Have a basic understanding of core concepts central to planetary health,
2. Have an understanding of the complex nature of planetary 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 planetary health.

III. HOW THE COURSE IS ORGANIZED

Course Delivery: The course uses Quercus for the provision of course and lecture materials, submission and completion of assignments and important communications between instructor and students. 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.

Students will be provided access to all readings in the form of links provided in the Course Schedule and Readings file made available in the “Course Info” section (in “Modules”) of the course’s website on Quercus. No textbook purchase required. All readings will be accessible using your UTORid and password through UofT’s electronic library system.

In the first two weeks of class (Sept. 15th and 22nd), lectures will be held virtually via Zoom (synchronously) during the scheduled time slot for the course (Wednesdays, 1:00-3:00 PM). Links for lectures will be posted as an announcement in Quercus in advance of classes. Lectures during this time will also be recorded (audio with PPT slide presentation) and made available for asynchronous learning purposes.

Starting on September 29th, lectures will be prerecorded and posted each week for students to access asynchronously (see schedule for topics and dates). The links to access will be provided in the Lecture Recordings folder in the Modules section in Quercus. In line with expectations to offer in-class learning opportunities for students, the instructor will host a weekly question/discussion period in **SS 1069** during the scheduled time for the course (**Wednesdays from 1:00 to 2:00 PM**). The in-class sessions are intended to provide students an opportunity to ask questions about concepts and issues presented in the weekly recorded lectures and readings and discuss related topics of interest with both peers and instructor. While not mandatory, students are encouraged to attend the in-class sessions.

IV. EVALUATION/GRADING SCHEME

Evaluation:

- Literature Review proposal = 20% (Due Date: Oct. 6, 2021)
- Mapping and Analyzing Chemical Emissions in your Neighborhood = 25% (Due Date: Oct. 27, 2021)
- Literature Review Paper = 30% (Due Date: Nov. 24, 2021)
- Final assessment = 25% (Date: **To be announced**, (24 hours to complete))

Please note: **This course will be using Ouriginal for the submission of assignments and the final assessment on the course’s website in Quercus.** Normally, students will be required to submit their course essays to the University’s plagiarism detection tool for a review of textual

similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (<https://uoft.me/pdt-faq>). If you object to using Ouriginal, please see the course instructor to establish appropriate alternative arrangements for submission of your written assignments prior to the submission deadline.

Literature Review Proposal (Due Oct. 6, 2021):

Students will submit a maximum 2-page (1.5 spacing, 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 brief background (1-2 paragraphs) to the topic of focus,
 - Provide a summary, including a description of main concepts of topic, which is detailed enough to inform reader about topic to be explored. This should include a description of topic's significance in a planetary health context (with reference to sources of information/peer reviewed literature)
- A clear statement of purpose OR goal (i.e., topical focus of paper),
- Briefly describe the key elements that were used to help focus the review topic (e.g. using a concept map/table (Please refer to file "ENV341 Tips for Paper Proposals" in the modules section of Quercus)). Commonly used conceptual frameworks in the public health sciences such as PICO (Population, Intervention, Comparison, Outcome) may be adopted for this. Please note writing resources and tips will be provided in the module section of Quercus for student reference (including tips on identifying a topic and a description of different conceptual frameworks used to focus literature reviews), and
- Provide an initial list of keywords and search engines (e.g. Scopus, PubMed, Web of Science) which will be used to conduct the literature search (point form accepted for this).
- References Cited section to be included at the end of your second page (for the initial references used to inform your background).

THE PROPOSAL MUST 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 two pages will be graded if students go over the page limit.

Proposals are to be submitted online as a Microsoft Word® (DOC and DOCX) document or PDF via the Quercus-based website for the course (**Deadline: 11:59 PM on Oct. 6, 2021**).

Mapping and Analyzing Chemical Emissions in your Neighborhood (Due Oct. 27, 2021)

The purpose of this exercise is to examine a chemical substance of concern that is emitted in a Toronto neighborhood of interest and describe the potential health impacts for its population. As part of this assignment, you will become familiar with the City of Toronto's online platform ChemTRAC (<https://www.toronto.ca/community-people/health-wellness-care/health-programs-advice/chemtrac/>), which collects data on the use and emission of priority chemicals by industrial facilities and businesses, as required under the Environmental Reporting and Disclosure Bylaw (https://www.toronto.ca/legdocs/municode/1184_423.pdf).

This data is made publicly available to help increase awareness of priority chemicals and encourage businesses to reduce emissions (see UTube video: <https://youtu.be/SqfBime8rCU>). You will also become familiar with the City's online open data platform to access demographic information for neighborhoods and communities (<https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/>).

Assignment details, including identified online resources to help you assess chemical exposures and possible health impacts for your population/neighborhood of interest, are provided in the syllabus made available on the course's website on Quercus.

The final assignment should incorporate a map and a 2 to 3 page (1.5 spacing, 12-point font) written description of the above points. Submissions should not be longer than 3 pages (not including map) and submitted electronically as a Microsoft Word® (DOC and DOCX) file or as a PDF via the course's website on Quercus on (or before) the due date (**Deadline: 11:59 PM**).

Literature Review Paper (Due Nov. 24, 2021):

Students will select a planetary/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. It is expected that students will do a literature review on the proposed topic submitted for the paper proposal in October.

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 a planetary 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. Details regarding the concept mapping exercise done as part of the paper proposal submitted earlier in the course should not be included.
- **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 1.5 spacing, 12-point font and 1” margins
- Include page numbers
- Be between 2,000 and 2,500 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 as a Microsoft Word® (DOC and DOCX) file or as a PDF via the course’s website on Quercus on (or before) the due date (**Deadline: 11:59 PM**).

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. More than 60 Advice files on all aspects of academic writing are available from <http://advice.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/>

Information about the on campus English Language Learning program (ELL) is available at: <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>.

Final Assessment (Date To Be Determined):

The Final Assessment will involve an online “take-home” assignment that will expect students to analyze an assigned article (as determined by the course instructor) and link it to contents explored in the course. Students will have 24 hours to complete and submit the assignment to the course’s website on Quercus. Assignments must be submitted as the following file types: Microsoft Word® (DOC and DOCX) or PDF. Completed assessments submitted in an unrecognized file format or after the deadline will not be accepted for grading (**a grade of 0% will be awarded**). A further description and details regarding the format and expectations of the assessment will be provided later in the course.

V. COURSE POLICIES

Email and Communication: The instructor will hold virtual office hours using Zoom on Tuesdays from 11:00 AM to 1:00 PM. Students must pre-register using the course calendar in Quercus for an appointment during this time (allocated as 15-minute time slots).

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 directly, if requesting an accommodation or an extension or in the event of an emergency.

It is recommended that students pay attention to the announcements posted on the course's website on Quercus, as this will be the primary way the instructor will communicate important messages, including ones of an urgent matter should unexpected events occur.

Students are expected to familiarize themselves with the course syllabus and expectations regarding course assignments. Should you have a question about course assignments or quizzes, 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 book a time during virtual 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.

Online conduct and expectations: Please note UofT's policy regarding online conduct and supporting a positive learning environment: *"The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. UofT does not condone discrimination or harassment against any persons or communities."*

Notice of video recording and sharing: Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. You are permitted to download lecture session videos for your own academic use, but you should not copy, share or use them for any other purpose without the explicit permission of the instructor.

Student recording of class content: Students creating unauthorized audio recording of lectures violate an instructor's intellectual property rights and the Canadian Copyright Act. Students violating this agreement will be subject to disciplinary actions under the Code of Student Conduct.

Because recordings will be provided for all lectures, students may not create additional audio or video recordings without written permission from the instructor. Permission for such recordings will not be withheld for students with accommodation needs.

For questions about recording and use of videos in which you may appear please contact your instructor.

Late Penalties and Deadline Extensions: Assignments should be handed in on the due date. A late penalty of 5% per day (including weekends) will be deducted from the mark for assignments for up to 7 days following the due date. Extenuating circumstances may arise that impact your ability to complete an assignment on time. Students are expected to discuss these issues with your instructor **before or on the assignment due date** to make alternative arrangements for submission. Students who are absent from class for any reason (e.g., COVID, other illness or injury, family situation) and who require consideration for missed academic work should report their absence through the online Absence Declaration Tool on ACORN (in the Profile and Settings menu). The decision to waive the penalty for late assignments for students that contact the instructor AFTER the deadline will be made at the instructor's discretion.

VI. INSTITUTIONAL POLICIES AND SUPPORT

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 (<https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019>) 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:

1. Using someone else's ideas or words without appropriate acknowledgement (including the use of phrases verbatim without quotation marks, even if you provide the appropriate reference in brackets or as a footnote).
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any assignment.

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 <https://www.academicintegrity.utoronto.ca/>).

Accessibility Needs: Students with diverse learning styles and needs are welcome in this course. The University of Toronto is committed to accessibility: if you require accommodations for a disability, or have any other accessibility concerns about the course, please contact [Accessibility Services](#) as soon as possible.

Additional Services and Support: The following are some important links to help you with academic and/or technical service and support:

- General student services and resources at [Student Life](#)
- Full library service through [University of Toronto Libraries](#)
- Resources on conducting online research through [University Libraries Research](#)
- Resources on academic support from the [Academic Success Centre](#)
- Learner support at the [Writing Centre](#)