**SOIL3520 - Pesticides: Environment, Economics and Ethics**  
**2017 Course outline**

**Course Description:** The course, SOIL 3520 Pesticides: Environment, Economics and Ethics (Formerly 040.352), provides a comprehensive examination of the benefits and risks of pesticide use. Topics include: History, practices, successes and failures in the use of pesticides in agriculture; Characteristics of pesticide active ingredients used in Manitoba/Canada; Pesticide use practices in developing countries (example Central America); Pesticide fate processes in air, soil and water; Pesticide environmental risks and contamination; Pesticide regulations, indicators and models. Not to be held with 040.411, 038.454 or 040.454.

**Course website address:** [http://farenhorst.ca/soil3520/](http://farenhorst.ca/soil3520/) Note that the website is password protected and you have to enter password: atrazine

**Professor:** Dr. Annemieke Farenhorst P.Ag., Professor of Soil Science, 380 Ellis Bldg. *E-mail:* annemieke.farenhorst@umanitoba.ca *Phone:* 474-6858. *Office hours:* by appointment.

**Teaching assistant:** Ms. Sirajum (Rumi) Munira, Ph.D. student, 282 Ellis Bldg. *E-mail:* muniras@myumanitoba.ca *Office hours:* by appointment.

**Website assistant:** Dr. Ross McQueen, Research Associate, 384 Ellis Bldg. *E-mail:* ross.mcqueen@umanitoba.ca *Phone:* 474-7181. *Office hours:* by appointment.

**Examinable materials:** Materials for exams will be drawn from three sources: (1) lectures, including lecture slides, writings on classroom boards and in-class discussions, (2) the three calculation assignments (i.e., CALC. 1, 2 and 3), and (3) published texts posted on the course website under “Examinable Materials”. In general, lecture slides contain little text and hence it is important for students to attend class and take their own notes. Lecture slides will be posted under “Examinable Materials” after each class.

**Other helpful resources:** The materials posted on the course website under “Refereed Publications” can be used by students to increase their knowledge about topics discussed in the course and in the preparation of course assignments.

**Marks (Course total = 100%):**

- **Exams (45%)** and composed of:
  - Midterm exam given in-class (45 minutes) (15%).
  - Final exam that covers entire course (2 hours) (30%).

- **Assignments (55%)** and composed of:
  - Three Calculation Assignments:
    - 3%, 4% and 5% each (12% total)
  - Poster Assignment (20%)
  - Four Photo/Video Assignments:
    - 0.5%, 1.5%, 3%, 18% each (23% total)

**Course grades (% and letter):**

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**Tolerance on missed exams:** If a student misses the midterm exam, the final exam will be marked out of 45% and the midterm exam mark will not be taken into account when calculating the course total. Failure to write the final exam will result in a mark of zero on that exam. For exceptions, please see: [http://umanitoba.ca/student/records/finals/682.html](http://umanitoba.ca/student/records/finals/682.html)

**Tolerance on late assignments:** No late submissions will be accepted for the four Photo/Video Assignments. Thus, any late submission for Photo/Video Assignments will result in 0% for that assignment. For the three Calculation Assignments and the Poster Assignment, the penalty for late assignments is 25% per day and any assignment submitted four days after the deadline automatically receives a grade of 0%

**The bad stuff:** It is your responsibility to become acquainted with the University’s policy on plagiarism and cheating. Any suspected case of plagiarism will be reported as per University’s policy on plagiarism and cheating and may lead to academic penalties.

**Cell phones, laptops and other gadgets:** Please turn off your cell phone at the start of the class and put it away to help ensure a respectful learning environment for your classmates and the instructor. A laptop, iPad or Tablet may be used to take notes while you keep engaged in the lecture and in-class discussions. Some in-class discussions require you to surf the Internet.
### JANUARY

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<td>PHOTO/VIDEO A1 DUE (1.5%)</td>
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- Introduction

- History of pesticide use

### FEBRUARY

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<td>PHOTO/VIDEO A3 DUE (1.5%)</td>
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- World economics and important actives
- Pesticide use in Manitoba/Canada
- Pesticide use practices in developing countries

- Pesticide fate processes in air

### MARCH

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<td>MID TERM EXAM (15%)</td>
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- Pesticide fate processes soil and water; Environmental risks and contamination; Regulations, indicators and models

### April

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- Pesticide fate processes soil and water; Environmental risks and contamination; Regulations, indicators and models
- PHOTO/VIDEO PRESENTATIONS
- Wrap-up & Exam tips

- Final exam
- 30%
- (April 22-29)
OTHER IMPORTANT INFORMATION

SECTION A. EXAMPLES OF ACADEMIC SUPPORTS AVAILABLE TO STUDENTS

Writing and learning support
The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor’s feedback.

These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: http://umanitoba.ca/student/academiclearning/

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 201 Tier Building.

University of Manitoba Libraries (UML)
As the primary contact for all research needs, your liaison librarian can play a vital role when completing academic papers and assignments. Liaisons can answer questions about managing citations, or locating appropriate resources, and will address any other concerns you may have, regarding the research process. Liaisons can be contacted by email or phone, and are also available to meet with you in-person. A complete list of liaison librarians can be found by subject: http://bit.ly/1tJ0bB4 or name: http://bit.ly/WcEbA1. In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the following: http://bit.ly/1sXe6RA. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries’ homepage: www.umanitoba.ca/libraries.

SECTION B. EXAMPLES OF METAL HEALTH SUPPORTS AVAILABLE TO STUDENTS

For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.

Student Counselling Centre
Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. Student Counselling Centre: http://umanitoba.ca/student/counselling/index.html

474 University Centre or S207 Medical Services
(204) 474-8592

Student Support Case Management
Contact the Student Support Case Management team if you are concerned about yourself or another student and don’t know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team.
520 University Centre
(204) 474-7423

**University Health Service**
Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation.

*University Health Service* [http://umanitoba.ca/student/health/](http://umanitoba.ca/student/health/)
104 University Centre, Fort Garry Campus
(204) 474-8411 (Business hours or after hours/urgent calls)

**Health and Wellness**
Contact our Health and Wellness Educator if you are interested in information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault.

*Health and Wellness Educator* [http://umanitoba.ca/student/health-wellness/welcome.html](http://umanitoba.ca/student/health-wellness/welcome.html)
Katie.Kutryk@umanitoba.ca
469 University Centre
(204) 295-9032

**Live Well @ UofM**
For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site:

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**SECTION C. A NOTICE WITH RESPECT TO COPYRIGHT**

All students are required to respect copyright as per Canada’s *Copyright Act*. Staff and students play a key role in the University’s copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community.

Visit [http://umanitoba.ca/copyright](http://umanitoba.ca/copyright) for more information.

**SECTION D. EXAMPLES OF UNIVERSITY AND UNIT POLICIES, PROCEDURES**

**Your rights and responsibilities**
As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The *Academic Calendar* [http://umanitoba.ca/student/records/academiccalendar.html](http://umanitoba.ca/student/records/academiccalendar.html) is one important source of information. View the sections *University Policies and Procedures* and *General Academic Regulations*.

While all of the information contained in these two sections is important, the following information is highlighted.
If you have questions about your grades, talk to your instructor. There is a process for term work and final grade appeals. Note that you have the right to access your final examination scripts. See the Registrar’s Office website for more information including appeal deadline dates and the appeal form [http://umanitoba.ca/registrar/](http://umanitoba.ca/registrar/).

You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the **Academic Integrity** regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support [http://umanitoba.ca/academicintegrity/](http://umanitoba.ca/academicintegrity/) View the **Student Academic Misconduct** procedure for more information.

The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected conduct yourself in an appropriate respectful manner. Policies governing behaviour include the:

**Respectful Work and Learning Environment**  

**Student Discipline**  
[http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html](http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html) and,

**Violent or Threatening Behaviour**  

If you experience **Sexual Assault** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at:  

For information about rights and responsibilities regarding **Intellectual Property** view the policy  
[http://umanitoba.ca/admin/governance/media/Intellectual_Property_Policy_-_2013_10_01.pdf](http://umanitoba.ca/admin/governance/media/Intellectual_Property_Policy_-_2013_10_01.pdf)

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site [http://umanitoba.ca/faculties/](http://umanitoba.ca/faculties/)

Contact an **Academic Advisor** within our faculty/college or school for questions about your academic program and regulations [http://umanitoba.ca/academic-advisors/](http://umanitoba.ca/academic-advisors/)

**Student Advocacy**  
Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.  
520 University Centre  
204 474 7423  
[student_advocacy@umanitoba.ca](mailto:student_advocacy@umanitoba.ca)