

ENV334H1S - Environmental Biology: Applied Ecology Syllabus (Winter 2014)

Time and Place:

Lectures: Mondays & Thursdays, 3-4 PM, RW117

Labs: in RW122 or UC261 P0101 - Tuesdays 9-12 AM
(see schedule) P0201 - Tuesdays 2-5 PM
 P0301 – Wednesdays 2-5 PM

Contacts:

Instructor (and lab coordinator):

Prof. H el ene Cyr, helene.cyr@utoronto.ca, 416-978-0975, RW414

Office hours: Do not hesitate to talk to me after lecture or contact me by e-mail if you would like to schedule a meeting at another time.

**** For all e-mail communication, make sure you put ENV334 in the title of your message or it might be deleted with the many junk messages I get every day. If you do not get an answer within 24 hours (excluding week-ends), try again; your message might have gotten lost... We do not accept any electronic submission of lab reports.*

Teachings assistants:

*** Your TA has one hour per week to answer your questions, either during office hours or through the discussion board. And of course, you will be seeing him/her most weeks in the lab – use that time efficiently!*

Tues **AM** Alexander Watts, RW410, alexander.watts@mail.utoronto.ca
Tues **PM** Alexander Watts, RW410, alexander.watts@mail.utoronto.ca
Wed **PM** Kateryna Kostyukova, kateryna.kostyukova@mail.utoronto.ca

Marking Scheme:

Individual lab reports:	35%
Nutrient loss from agricultural soils (10%)	
River flow in urban & suburban watersheds (5%)	
Phosphorus management in Lake Simcoe (10%)	
Toxicity Bioassays (10%)	
Group project:	20%
Proposal (written & TA meeting, 5%)	
Presentation (15%)	
Midterm (50 min. in class)	10%
Final exam (during exam period):	35%

NOTE: Please hand in everything on time!! There will be a penalty of -5% per day (including week-ends) for all late lab reports. We do NOT accept electronic submissions of course work.

Course Web page (on Blackboard):

All course information will be stored on Blackboard (<http://portal.utoronto.ca/>). You will have access to the Syllabus, Lecture Schedule, Lab Schedule, Lecture slides (pdf files) and Lab Handouts and data sheets. If you have any problem accessing the material, let me know right away so I can fix the problem (e-mail is best).

Course Manual & Recommended textbooks:

Required Course Manual:

The ***ENV334H1S Environmental Biology: Applied Ecology Lab Manual*** will be available at *Scholar House Production* (see below) at the beginning of January. It contains the syllabus, lecture and lab schedules and the lab manual. Bring the lab manual to all labs.

Scholar House Production

100 Harbord St. (1.5 blocks west of Spadina)

(416) 977-9641

Business hours: M-Th: 8:30AM-6PM, F: 8:30AM-5PM

Recommended textbooks:

Withgott, J., S. Brennan and B. Murck. 2013. *Environment: the science behind the stories*. 2nd Canadian ed. Pearson Canada, Toronto. [*short term loan, ESC Library*]

Brady, N.C. and R.R. Weil. 2002. *The nature and properties of soils*. 13th ed. Prentice Hall, NJ. [*short term loan, ESC Library*]

Brooks, K.N., P.F. Ffolliott, H.M. Gregersen and L.F. DeBano. 2003. *Hydrology and the management of watersheds*, 3rd ed. Iowa State Press, Ames, Iowa. [*electronic resource through UofT Library*]

Labs and lab reports:

Read carefully through the lab handout before the lab to enhance your learning experience and take full advantage of your time in the lab. Also, please arrive on time since there will be important information given at the beginning of each lab.

The due dates for each lab report are listed on the Lab Schedule. Hand in a hard copy of your lab reports at the beginning of the lab or lecture, as listed on the Lab Schedule. Students are also required to submit all lab reports to Turnitin.com for a review of textual similarity and detection of possible plagiarism. *In doing so, students will allow their reports 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 website (<http://www.utoronto.ca/ota/turnitin/ConditionsofUse.html>). Turnitin.com is most effective when it is used by all students; however, if and when students object to its use on principle, we offer a reasonable alternative. We will then ask the student to meet with the course instructor to discuss the lab report in detail. No grade will be released for a lab report until we have been*

able to review it for potential plagiarism.

CQUEST labs:

A few labs, including part of the first lab, will run in the CQUEST computer lab. Make sure you have a valid CQUEST account before the lab. If you do not have an account, you can sign up at <http://www.cquest.utoronto.ca/>

Saving data: The CQUEST computers have a LINUX operating system that emulates Windows 2000. This means that nothing is saved between sessions, unless you save it on a disk or USB key, or in your own account on the CQUEST server. To access your CQUEST storage location, double-click on “disk.srv” under “Save”. You will then be asked for your user name and password.

Improving your Writing skills:

Effective communication is crucial in science. The University of Toronto provides services to help you improve your writing (see specific section on lab reports), from general advices on effective writing to writing centers and writing courses. See <http://www.writing.utoronto.ca/>. The Faculty of Arts & Science also offers an English Language Learning (ELL) program, which provides free individualized instruction in English skills. See www.newcollege.utoronto.ca/ell. Take advantage of these!

Academic Integrity:

You should be aware of the University of Toronto *Code of Behaviour on Academic Matters*. Also see <http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize> on *How Not to Plagiarize*. Note that it is NOT appropriate to use large sections from internet sources, and inserting a few words here and there does not make it an original piece of writing. Be careful when using internet sources – there is no review of most online material and there are MANY errors out there. Only use internet sources from academia, government or well-recognized international organizations (e.g., UNESCO, FAO) when absolutely necessary. Make sure you read material from many sources (published, peer-reviewed, trusted internet sources) and that you write an original text using this information. Always cite your sources. In case of doubt about plagiarism, talk to your instructor.

ENV334H1S - Environmental Biology: Applied Ecology Lecture Schedule (Winter 2014)

Monday & Thursday 3-4 PM in RW117

Jan. 6	Brief introduction to course; Managed and natural ecosystems
Jan. 8	Neolithic (agricultural) Revolution: worst mistake in human history?
Jan. 13	The Green Revolution
Jan. 15-22	Intensive agriculture and its effects on soils
Jan. 27	Pesticides and pesticide resistance
Jan. 29	Towards sustainable agriculture
Feb. 3-5	Land use affects hydrological processes and water quality in rivers
Feb. 10-12	Dams and their effects
Feb. 17-19	READING WEEK
Feb. 24	Midterm (50 min, in class)
Feb. 26	Ecosystem management: Lake Simcoe (case study)
Mar. 3	Ecosystem management (2) Adaptive management: dealing with ecosystem complexity
Mar. 5-10	Bioaccumulation & Biomagnification of pollutants; POP Transport
Mar. 12	How to measure anthropogenic impacts: Bioassays & Bioindicators
Mar. 17-19	Restoration Ecology; Ecosystem restoration, rehabilitation, reclamation
Mar. 24-26	Phyto- & Microbial remediation
Mar. 31-Apr. 2	Wastewater & Waste management: microbial processes

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Lab Schedule (Winter 2014)

Tuesdays 9-12 AM, Tuesdays 2-5 PM, Wednesdays 2-5 PM

<u>Date</u>	<u>Where</u>	<u>Topic</u>
Jan. 7/8	-----	NO LAB
Jan. 14/15	RW122	Management/Restoration/Reclamation group project <i>Introduction, group assignments, initial group discussions</i>
Jan. 21/22	RW122	Management/Restoration/Reclamation group project <i>Meet with your TA to discuss proposal (15 min appointments)</i>
Jan. 28/29	RW122	Nutrient loss from agricultural soils
Feb. 4/5	-----	Management/Restoration/Reclamation group project <i>(TA available by appointment during lab period)</i>
Feb. 11 / Feb. 12	UC261* RW107*	River flow in urban & suburban watersheds
Feb. 18/19	-----	READING WEEK
Feb. 25/26	-----	Management/Restoration/Reclamation group project <i>(TA available by appointment during lab period)</i>
Mar. 4/5	UC261*	Phosphorus management in Lake Simcoe – Part 1
Mar. 11/12	UC261*	Phosphorus management in Lake Simcoe – Part 2
Mar. 18/19	RW	Water Quality in Toronto Watersheds: Field trip
Mar. 25/26	RW122	Toxicity Bioassays
Apr. 1/2	RW122	Management/Restoration/Reclamation project - <i>presentations</i>

* *meet in computer room*

DUE DATES

Hand in hard copy & submit reports to Turnitin

Jan. 21/22	Group Proposal (hand in at your meeting)
Feb. 11/12	Nutrient loss report (<u>beginning</u> of lab)
Feb. 27	River flow report (<u>beginning</u> of lecture)
Mar. 25/26	P management in Lake Simcoe report (<u>beginning</u> of lab)
Apr. 4	Toxicity bioassays report (hand in to H. Cyr office <u>by 4PM</u>)