

ERS 340

Dr. Colin N. Yates

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ERS 340 Ecosystem Assessment

University of Waterloo

Course Instructor:

Dr. Colin N. Yates, PhD

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Teaching Assistant:

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Course Dates:

Daily May 6 – May 31 (at Waterloo Summit Centre for the Environment, Huntsville)

You are responsible for finding your own transportation to and from the facility. You will

be expected to arrive between 1-2pm on Sunday May 5th

(see attached calendar for detailed schedule)

Course Description:

Today's environmental practitioner requires a comprehensive skill set of advanced environmental assessment techniques. In ERS 340 students will be trained by in-field professionals in respective fields of forestry, aquatic biology, water quality, vegetation and landscape ecology to become independent environmental technicians. Students will participate in field trips, conduct numerous field and lab analyses, as well as receive certification(s) in provincially recognized environmental assessment protocols*. Students will also be exposed to a number of guest presenters and networking opportunities during the course.

Course Objectives:

1. Develop advanced skills in the collection and analysis of environmental data.
2. Acquire professional certification(s) in provincially recognized assessment protocols.
3. Learn to expertly record and manage environmental data.
4. Practice networking skills while meeting professional environmental practitioners.

Certifications Courses:

1. OMNR Ecological Land Classification
2. OMNR Class II Backpack Electrofishing
3. Ontario Benthic Biomonitoring*
4. Boat Safety*

*Need to pass in-course test to be certified

Course Evaluation:Term Report

1. Bi-weekly Assignments	10%
2. Retrospective	10%
3. Field Notes	40%
4. Lab Notes	40%
Total	100%

*Receipt of certification(s) is dependent upon meeting expectations set out by each certification program. Results of the certifications do not influence the success of the of the ERS 340 course grade.

Course Process:

While this course is officially listed as term-long, only the weekly assignments will be completed throughout the length of the term. Field and lab exercises will not commence until May 6th and proceed to May 31st. It is expected that much of the Term Report will be completed during the month-long field and lab component at the University of Waterloo Summit Centre for the Environment at Huntsville ON.

Evaluation:Bi-Weekly Assignments – 10%

On LEARN students will complete bi-weekly assignment for ten weeks (5 responses total). Each assignment is worth 2% (10% total). Students will read a provided research article or report which you will describe in short written response (max. 300 words). The response should include such things as appropriate given the article provided; the research objective/purpose, a list of parameters used in the study, a description of the research design in 2-3 sentences, key regulatory standards, measures of performance and the ecosystem types systems analyzed.

Term Report

The term report consists of three components contained within a single submission report: Retrospective, Field Notes and Lab Notes.

Retrospective – 10%

As part of the final term report each student will be expected to submit a 5-page (double spaced) retrospective on the field and lab skills learned while undertaking ERS 340. Also be sure to discuss areas in the course you would have liked to learn in greater

depth. Note that items from field trips, guest presentations, and networking events are also great things to comment on in the retrospective.

Field Notes – 40% (Due Date: June 14, 2013)

Each student is required to create and maintain a comprehensive set of field notes which will be submitted as part of the final report. Field notes should include data on weather conditions, geographic locations, dates, environmental data collected. Field notes should also include points from field trips. Any other pertinent information should also be recorded. Notes will be marked on their comprehensiveness and effectiveness. Notes can be submitted as original handwritten notes with digital format if illegible to grader.

It is expected that you include field notes from the certification courses you take.

Lab Notes – 40% (Due Date: June 14, 2013)

Each student is required to create and maintain a comprehensive set of lab notes which will be submitted as part of the final report. Lab notes should include information on data analysis, results, and methodology. Any other pertinent information should also be recorded. Notes will be marked on their comprehensiveness and effectiveness. Notes can be submitted as original handwritten notes with digital format if illegible to grader.

Handing in Assignments:

Bi-Weekly Assignments: All assignments will be submitted through LEARN starting May 17th and ending July 12th. Each student is responsible for handing this assignment

Submission of Report: All term reports should be submitted to the course instructor by 4pm Friday June 14, 2012. Alternatively the report can be submitted to Patti Bester by 4pm Friday June 14, 2012. Make sure that you attach Academic Integrity Form appended at the bottom of the course outline.

Citation Format for Assignments: The citation format adopted for this course is the APA (American Psychological Association) style. The complete style outline can be found in the Publication Manual of the American Psychological Association, located in the reference section in Dana Porter Library, call number BF76.7.P83 1994. On the web you can find some quick references at the following URLs.

APA essentials - http://www.vanguard.edu/faculty/ddegelman/index.aspx?doc_id=796 and <http://www.apastyle.org/>

APA Crib Sheet - <http://www.wooster.edu/psychology/apa-crib.html>

Citing Electronic References - <http://www.apa.org/journals/webref.html#Email>

Student Accommodations:

Students with disabilities: The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term. Then see the course Instructor, Colin Yates, in confidence, during office hours to discuss your needs.

Religious Observances: Please inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Student Responsibilities:

Late Penalties: Students are responsible for handing their work in on time. 15% deduction is given per calendar day (of the total marks available) up to three days*. Following the third day the assignment will be graded as a zero. Only in unavoidable circumstances will extensions be granted, and must be given by the course instructor.

*Bi-weekly assignments will be graded as zero if they are handed in after the due date.

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offences and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.html>

Within ENV, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties which may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion.

Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Plagiarism: In particular, you should not plagiarize the work of others. Policy 71 defines plagiarism as: “The act of presenting ideas, words or other intellectual property of another as one’s own. The use of other people’s work must be properly acknowledged in all written material such as...essays, laboratory reports, design projects, statistical data, computer programs and research results. The properly acknowledged use of sources is an accepted and important part of scholarship. Use of such material without complete and unambiguous acknowledgement, however, is an offence under this policy.” Students are expected to keep a copy of all materials used to prepare assignments in case of disputed work and should be able to provide working notes and original data for any assignment within 4 hours of this being requested.

In the context of this course, plagiarism includes (among other activities) submitting without appropriate acknowledgement any report (or part thereof, including software, designs, photos, computer images, models, drawings, maps, statistics, samples, results of lab or field work etc.) which has been submitted previously to any course anywhere by

any person, submitting a report in which the production has been shared by more than one student and each has submitted it as their own without acknowledgement of the other's contributions, submitting any work created in whole or in part by another without the usual acknowledgement. Policy 71 states that one should not submit "an essay, report or assignment when a major portion has been previously submitted or is being submitted for another course with the express permission of all the instructors involved". **If in doubt, ask the course instructor or the teaching assistant if your intended assignment submission is acceptable.**

All suspected academic infractions are investigated and formally reported to the Associate Dean, Undergraduate of FOE.

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4.

Meals at the Summit Centre

As part of course fees students will be provided catered lunches and dinners every day for the duration of the course. It is the responsibility of the students to provide for their own breakfasts. There will be times when it will be expected that you pack a lunch for a day's worth of field work. You will be expected to bring your own lunch bags and Ziploc bags.

Students will be given time to go get groceries in the town. This will be expected to be done during evening hours during the week and on days off during the weekends.

**Please fill out the form provided for allergies (and their severity) and medications.

Additionally please fill out the following form for other meal considerations:

Name: _____

Please list any dietary restrictions you have (i.e. vegan, vegetarian, and/or foods for religious observances):

Please submit this form to Patti Bester (EV2 2012) by April 12th, 2013. Failure to receive this documentation by the date request will result in limited meal selection to cater to your specific needs.

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May 2013

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4
5 Arrival	6 Ecosystem's Course Begins 9am: Orientation (safety, data, field books) 1pm: Mayor's Address <u>Afternoon Fieldwork</u> : Soil Studies: Pits	7 <u>Morning Field work</u> : Soil studies <u>Afternoon Lab</u> : Soil physical and chemical analysis	8 <u>Morning/Afternoon Fieldwork</u> : Vegetation Transects: Composition Guest Presenter (evening)	9 <u>Morning/Afternoon Fieldwork</u> : Vegetation Transects: abundance (wetland)	10 9am: Presentation by Steve Munro (Westwind Forestry) <u>Morning-Afternoon Fieldwork</u> : Arrowhead PP Tree Marking	11
12 Day off	13 ELC certification training	14 ELC certification training	15 ELC certification training	16 ELC certification training	17 ELC certification training	18 Day off
19 Day off	20 9am: Morning Introduction <u>Morning Fieldwork</u> : Rapid Water Quality Sampling <u>Afternoon Lab</u> : Water analysis	21 Electrofishing	22 Electrofishing Guest Presenter (evening)	23 Boat course	24 <u>Morning Fieldwork</u> : Water Quality Sampling <u>Afternoon Lab</u> : Water analysis	25 Conference
26 Day off	27 Day off (Field Trip)	28 OBBN	29 OBBN	30 OBBN (half day)	31 Course wrap up Home in afternoon	

*schedule may change due to weather conditions or other unavoidable circumstances.

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List of Supplies Recommended for Students to Bring to Huntsville

Clothing

***You will be attending a conference in Bracebridge! Make sure to bring business casual clothes for these two days. Also a good idea to bring business cards if you have them.

Please be sure to pack clothing suitable for the weather. Be sure to consider rain, sun, wind and bugs when preparing your wardrobe. (Lightweight fast drying items that can be layered are best for field work)

- Bug and rainproof clothing
- Warm clothes that can be layered
- Cool clothes that are appropriate for the field
- Hiking/ waterproof boots
- Running shoes, sandals
- Hat, bandana, kerchief
- Sunscreen
- Swim clothes
- Hiking socks, undergarments

Equipment

- Hiking pack / Backpack
- Pack Cover
- Waterproof Bags (dry-sack)
- Sunscreen
- Bug Spray
- Water bottle
- Flashlight/ headlamp
- GPS (if you have)
- Camera (if you have)
- Computer, charger
- Notebook, stationary, clipboard
- Field guide books
- Chest waders

Linen

Basic linen is provided however additional blankets, pillows and room decorations can also be brought from home for your added comfort

- Towels
- Additional pillows or blankets

Basic Toiletries

- Soap, Shampoo, etc.
- Hygiene Products
- Toothbrush and Paste
- Kleenex
- Medications if necessary (EpiPen, inhalers, etc.) – these should be with you at all times.

Other considerations...

- Music and players
- Musical instruments
- Sports equipment
- Movies, books, games
- Tupperware for leftover meal storage
- Insulated lunch bag for the field
- Snacks

AI Acknowledgement Form
WATERLOO | OFFICE OF ACADEMIC INTEGRITY

This form may be used by course instructors as an educational tool to help their students maintain high standards of academic integrity (AI) in their work. Additional copies (as well as a version specifically for programming assignments) are available online at:

http://www.adm.uwaterloo.ca/infoacad/AI_Acknowledgement_Forms/index.html.

Students are expected to know what constitutes AI, to avoid committing AI offences, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offence, or who need help in learning how to avoid offences (e.g., plagiarism, cheating) or about 'rules' for group work / collaboration should seek guidance from the course professor, TA, academic advisor, or the Undergraduate Associate Dean.

For information on categories of offences and types of penalties, students should refer to **Policy 71, Student Discipline**, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

A student who believes that he/she has a ground to appeal a discipline decision should refer to **Policy 72, Student Appeals**, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>

A student who believes that a decision or action of a faculty member has been unfair or unreasonable should refer to **Policy 70, Student Petitions and Grievances**, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Your signature below indicates you understand and have complied with UW policy, including:

I have referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.

I have included a proper bibliography, which includes acknowledgement of all sources used to complete this assignment.

This assignment was completed by my own efforts and I did not collaborate with any other person for ideas or answers.

-
- If not, please state who you collaborated with and what the collaboration entailed:

NOTE: Collaboration is only acceptable when/as approved by your professor in advance.

This is the first time I have submitted this assignment or essay (either partially or entirely) for academic evaluation.

- If not, please list when all or part of this assignment or essay was previously submitted:

Term (Year/Month):

Course:

Professor:

NOTE: Submitting partial or entire work(s) already submitted for other purposes is only acceptable when approved by your current professor in advance for a specific assignment.

Course #: _____ Student Name: _____ Signature: _____

Assignment: _____ Instructor: _____ Date: _____