

BIOL 3281 – Plant Ecology Course Syllabus

Professor: Dr. S. VanLaerhoven

GA: Cassidy Smith

Best way to contact us is via Course Message on Blackboard. You can expect a reply on Blackboard within 24 h during weekdays, up to 72 h on weekends, holidays or reading week. We can also be reached via email (vanlaerh@uwindsor.ca or smith4z@uwindsor.ca) however due to the numbers of daily emails received, response times may be as long as 1 week.

Contact hours:

Lecture (3 hrs/wk):	Video Lectures posted on Blackboard under Lecture Resources Tues 11:30am -12:30pm Live Q&A, Topic Round-Table Sessions in MS Teams
Lab Field Trips (3 hrs/wk):	Information posted on Blackboard under Field Trip Resources Tues 12:30-1pm, Live Field Trip Base Camp Sessions in MS Teams
Office hours (1 hr/wk)	Tues 1-2pm in Blackboard Virtual Office

What is the point of this course? What can I expect to know when I'm done?

- This course will introduce you to plants from the perspective of their role in defining our ecosystems, characterizing our yards and gardens and influencing our view of our landscapes. We manipulate plants for shelter, recreation, food, aesthetics and to impact our environment.
- By the end of this course, you will be familiar with adaptations, growth forms and strategies utilized by plants and how these inter-relate at a range of spatial and temporal scales. This includes understanding plant responses to disturbances like fire, fire-suppression or grazing. You will gain these skills by examining plants in local environments during field trips, and by comparisons in wider Ontario ecoregions and ecozones and in biomes around the world.
 - Why should you care about plant adaptations, growth forms and strategies in different environments?
 - As plants evolved, they differed in these ecological characteristics allowing them to do better in specific-types of environments. As climate changes, plants may change their distribution, adapt or disappear.
 - Knowing the types of successful adaptations for a given environment provide a way to predict what plants might be successful and which might be at risk.
 - We rely on the health of our ecosystems, driven by plant diversity, for ecosystem services that we take for granted like clean air and water. We rely on plants for food and to produce our shelters.
- After completing this course, you can expect to be able to discuss the role of native plants compared to alien or invasive species, and perspectives on desirable plants compared to weeds.
 - Why do you care about these ideas?
 - There are literally hundreds of thousands of jobs relating to plant ecology in North America, everything from summer research assistants for first year university students to PhD level positions. It ranges from conservation, agriculture, food science, medicine, disease, textiles, forestry, home protection, and ranges from private companies to universities and government agencies at all levels.

Required Texts: There is no required text for this course. Students are encouraged to search the primary literature (journal articles) and texts for background information to complete their journal posts and blog project.

Grading System:

Quizzes	= 20 %	2-7% each at the end of each lecture topic
Live Round-Table Sessions	= 16 %	~1.3% per live session discussion
Field Journal Posts	= 44 %	4% per field trip due before the next field trip base camp session
Plant Blog Project	<u>= 20 %</u> =100%	Final entry due by 11:59pm on Dec 14th

Quizzes: Quizzes will be administered at the end of each lecture topic, with 5 quizzes in total. The value of each quiz is weighted depending on the number of weeks of material, ranging from one week (2%) to five weeks (7%), for a total of 20% of your overall grade. Each quiz may be a combination of multiple choice, true/false, fill in the blank, definitions, matching, short answer, structure/function, hot spot or drag & drop.

Live Round-Table Sessions: Every Tuesday (except Oct 12 when there is no class) from Sept 14 to Dec 7, we will meet for a live session on MS Teams for one hour at 11:30am to 12:30pm (Note, we will meet for an addition 30 mins from 12:30-1pm to discuss the field trips). During this time, we will start with a Q&A (question & answer) session for the posted virtual lectures and then we will have a round-table discussion based on questions/ideas relating to that week’s lecture topic. You are expected to actively participate in the discussion by contributing ideas in the round-table session to earn ~1.3% per week for the session.

Field Trips. There will be 11 mandatory field trips as part of this course. The intention of these field trips is to allow you to experience plant ecology in the field as it is applied in nature, in agriculture and human habitation. These field trips will be self-guided, allowing you to explore at your own pace. The details of each field trip will be provided during the Live Field Trip Base Camp sessions. During these sessions, we will provide details as to what your goals will be, what specific kinds of observations you should be making and guidance for Windsor-Essex locations that would be appropriate for the field trip. For students outside of the Windsor-Essex area, they are encouraged to explore their appropriate local environments. If you are unsure if a location would be suitable for the field trip, please contact myself or your GA. Additional field trip resources will be posted on Blackboard under the Field Trip Base Camp Resources Tab.

Field Journal Posts. The Field Journal Posts are worth 44% of your final grade in total as each field trip is worth 4%. During your field trip, you should take photos, videos and write down your observations, reflections and experiences. You will use these to then write a journal post on Blackboard for each field trip. The objective of the journal post is for you to comment on what you see during your field trip, its relevance in plant interactions with other plants, plant interactions with their environment, plant interactions with humans, as well as commentary about and on your observations. For example, do your observations lead you to ask more questions about plant ecology, the interactions between plants, plants and the environment or plants and us? Do your observations relate to content from one of the other field trips or something we discussed in class? How does the process of tracking your observations reflect upon the broader learning outcomes for the course? The grading rubric for your journal posts is available on Blackboard. You should look at the sample journal entry to get an idea of what a journal post may include. Field trip details are provided on Tuesdays, and the journal entry for that field trip must be submitted to Blackboard prior to the next Live Base Camp session on Tuesdays. You can access the field journal for each week's field trip from the Field Journal Tab on the main menu or you can access it within the Field Trip Base Camp Resources for that week's field trip.

Plant Blog Project: This is a semester long project. By end of day (11:59pm) on Sept 21st, you will choose a plant you can grow from seed within the time-frame of the semester and purchase the seed. Examples of good plant choices include vegetables such as a tomato, pepper, bean, or a flowering annual. You will set up at least two different growth media environments, such as hydroponics or in potting mix and plant your seeds. In case of disaster (cat/dog/room-mate/family member, wind, insects, disease), I'd suggest you plant more than one seed in each growth condition. You are welcome to discuss potential plant or growth media ideas with me if you are unsure of whether or not it is suitable. See the example blog entry on Blackboard for ideas of things to include and to discuss.

- At least once a week on Tuesdays, starting no later than 11:59pm on Sept 21st, you will write a blog entry complete with photos or videos of your chosen plant's progress from germination through to flowering or fruit/seed development. At least one entry per week (Wednesday to following Tuesday by 11:59pm counts as a week) is expected. See the posted grading rubric for details regarding grading and the number of entries and timing.
- In your entries, you should pay attention to differences in growth rate, size, flower or fruit development, leaf colour and size, and overall plant health. What do you notice in terms of root development?
- Try varying conditions such as light location and see how your plant responds. Do the leaves change direction? Does it differ between the plants in the two growth medias?
- How much fertilizer does each plant require? Do you notice differences between the two growth medias? Try varying fertilizer amounts to see what happens (this is when having multiple plants is a good idea in case you kill one!).
- What adaptations and responses do you observe in your plants between the two growth medias and in response to different types of stimuli? Other than fertilizer and light, what other stimuli have you tried?

Your final blog entry will be a summary of what you have observed throughout the semester and is due by 11:59pm on Dec 14th.

Illness/Emergency Reporting & Notification Policies:

Illness/Emergency Policy: The University has an official policy for how to report illness during the pandemic. The details are at the following website: http://ask.uwindsor.ca/app/answers/detail/a_id/577

Specifically, you must fill out the "Report Illness" form on that website and submit it. Please note that it is an academic offense to report a sickness if you are not, in fact, sick.

It is your responsibility to contact the professor by email or by course message, prior to the missed session, or within 24 hours of the missed live session that you have submitted an Illness Report via the above website or if you have another emergency. If notification is not provided within 24 hours, no consideration will be given and the student will receive 0 on the missed session.

Missed Due Date/Missed Live Round-Table Session Policies:

Missed Due Date Policy: Online due dates are hard deadlines and late entries will not be graded. Everything will be turned into Blackboard. No other forms of submission will be accepted.

Missed Live Round-Table Session Policy: If you miss a live Round-Table session, you automatically lose the ~1.3% for the session. It is entirely at the discretion of the professor as to whether you get the opportunity to shift the percentage of the missed session to the next session. The only conditions under which this will be considered are if you have a documented illness or documented emergency. It is up to the professor's discretion to determine whether your reason is acceptable. In all cases, the professor reserves the right to refuse this reason as adequate or not. It is your responsibility to contact the professor by email or by course message, prior to the missed session, or within 24 hours of the missed live session that you have submitted an Illness Report via the above website or if you have another emergency. If notification is not provided within 24 hours, no consideration will be given and the student will receive 0 on the missed session.

Plagiarism and Academic Integrity Policy: Plagiarism is a serious academic offense because it dishonestly and fraudulently uses someone else's work as one's own. Students are to be evaluated on the basis of their own original work. In the preparation of essays, papers, reports, and any other types of assignments, students must necessarily rely on the work of others. However, it is imperative that the source of any ideas, wording, or data obtained from others be disclosed and properly acknowledged by citations, quotation marks, and bibliographic references in the proper format. Using the work of others without acknowledgement is plagiarism. Listing references at the end of a paper but not using in-text citations to indicate sources is plagiarism. Plagiarism includes, but is not limited to:

- a) Using a passage or passages of any length from published or unpublished work of others without placing the passage(s) in quotation marks (or using indentation for long quotation(s)) and acknowledging their source;
- b) Submitting work as original when that work also has been or is currently being submitted for another course, unless prior permission has been given in writing;
- c) Copying material, for example, from the Internet, or purchasing material and submitting it as one's own;
- d) Submitting work completely or largely identical to that of other students, unless group work and joint submissions are explicitly permitted by the instructor.
- e) Submitting photographs purchased or obtained in any way that is not from your own work.

In cases of plagiarism, the instructor assigns a grade of 0 (F-) to the work in question. This will be decided in consultation with the AAU head. If an instructor determines that plagiarism has occurred, the student shall be informed and the case reported to the Dean of Science and the Office of Academic Integrity. Disciplinary proceedings may be initiated pursuant to Senate Bylaw 31, which could result in suspension or expulsion from the University in cases of repeated plagiarism. Students will not be allowed to re-write or re-submit work to compensate for grades assigned as a result of plagiarism. For further information regarding plagiarism and academic integrity/dishonesty policy, please see the Senate Bylaws (Bylaw 31) and Office of Academic Integrity.

SET FORMS: Student Evaluation of Teaching forms will be administered online within the last two weeks of the course.

Policy on Academic Accommodations for Students with Disabilities: Students with disabilities who require academic accommodations in this course must contact an Advisor in Student Disability Services (SDS) to complete SDS Registration and receive the necessary Letters of Accommodation. After registering with Student Disability Services, you must present your Letter of Accommodation and discuss your needs with me as early in the term as possible. Please note that deadlines for the submission of documentation and completed forms to Student Disability Services are available on their website: /disability