

Plants & Society

BIOB38



Course Syllabus

Course description and objectives

BIOB38H provides an introduction to the scientific foundation and practice of food production. How do plants directly and indirectly feed the human population? Students will learn about the origin of agriculture and what traits people have been altering in domesticated plants over the course of the last 10,000 years. Emphasis will be put on an understanding of the changes in how crops are grown since the 20th century, i.e. the Green Revolution and its legacy. A good portion of the lectures will be dedicated to a discussion of the most important plants that feed the world ('the top 20'). Since ancient times, people have used herbs and spices to add interest to their meals and the course will discuss the (historical) importance of these plants. Often, it is a fine line between healing plants and plants of addiction and we will learn about plant secondary compounds involved in both these purposes. Plants are also used to produce alcoholic beverages and the course will showcase how beer is brewed and from what plants. Lastly, plants are also very important for the fibers that keep us warm and also for the production of paper, which triggered the development of our culture and complex societies.

Instructor

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Office hours: Mon 4-5 PM, Thu 2-3 PM, or by appointment (just send me an email suggesting a few possibilities fitting your schedule and we will make it work!), SW563C

TA: TBA

Website

Class information will be provided on the course website on the U of T Portal: portal.utoronto.ca. You will need your UTORid and your password to access the site. Please refer to instructions on how to access the course website on blackboard using the information in <http://www.portalinfo.utoronto.ca>.

Marks breakdown

Quizzes about the four movies (2% each)	8%
Writing of one long-answer question about lecture material	13%
Midterm exam (lectures 1-12)	34%
Final exam (cumulative 1-24)	45%

Times and location

Course lecture time and place: Tue, 3 – 5 PM, ARC AC223

Tutorial time and place: Thu, 5 – 7 PM, ARC AC223

Course schedule/Important dates

Week	Date	Lectures	Lecture topic/presentations
1	1/6	1/2	Origin of agriculture
2	1/13	3/4	Plant domestication
3	1/20	5/6	Methods of domestication
3	1/22	Tutorial	Dirt! The Movie
3	1/22	At the end of the tutorial	Group sign-up for long-answer question
3	1/22	Quiz about the movie	
4	1/27	7/8	Green Revolution I
5	2/3	9/10	Green Revolution II
5	2/8	Submit your long-answer question and answer about lecture 5/6	
6	2/10	11/12	Plants that feed the world I
6	2/12	Tutorial	Movie time: King Corn
6	2/15	Quiz about the movie	
	2/16-20	Reading week	
7	2/24	13/14	Plants that feed the world II
8	3/3	15/16	Plants that please the palate
9	3/10	17/18	Plants that heal the sick
9	3/12	Tutorial	Movie time: Forks over Knives
9	3/15	Quiz about the movie	
10	3/17	19/20	Plants that hook the mind and body
11	3/24	21/22	Plants the world thirsts after
12	3/31	23/24	Plants of warmth and strength
12	4/2	Tutorial	Movie time: Behind the Label. The Double Face of Indian Cotton
12	4/2	Quiz about the movie	
April TBA (exam period) Final exam (cumulative; lectures 1-24)			

Lectures and other course material

Lectures will be posted on Blackboard as PDF files, typically 24 h before class. You will need your UTOR ID to download the files.

Communication policy

Students are required to regularly and often check their UTOR email to receive announcements or updates relating to the course. To inquire about course-related issues, students are strongly encouraged to solely use their UTOR email, as hotmail or other email providers are spam-filtered on a regular basis. It is the responsibility of you as the student to make sure your email reaches the instructor.

The instructor will not answer any questions related to material discussed in class or during the tutorials by email (unless it is a clear yes-no answer), but the student is encouraged to ask these questions before or after class or the tutorial, during official office hours or to schedule a meeting outside office hours by email.

Accessibility

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach the course instructor and/or the AccessAbility Services Office as soon as possible. Enquiries are confidential.

The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

Readings

There is no required reading, but most topics introduced in the lectures are covered in the book [Levetin and McMahon. 2007. *Plants and Society*. McGraw-Hill], which is the recommended course book. The book is available at UTSC's book store (hopefully both new and used books). The course's approach in regard to exam questions is as follows: questions will only cover material introduced in class or labs. If you do not understand certain concepts, the recommended sections of Levetin and McMahon's book should be consulted, but anything present in the book yet not covered in the lectures will not be on the exam.

In case a certain topic is not covered in Levetin and McMahon's book, the lecture material originated most probably from primary scientific literature. In each such case, there is a reference provided on the slide along with e.g. a table or figure. This reference will help you to find the article using either ISI web of science (with your UTOR ID and password, on the website of the Gerstein library; <http://www.library.utoronto.ca/gerstein/>) or through Google scholar (does not work in all cases).

Penalty for late assignments

The quizzes will only be open the day of the movie. This is non-negotiable unless you bring a valid doctor's note. There will be a penalty of 5% per day for the long-answer assignment received late. Weekend days count as individual days. Unless there are extenuating circumstances (e.g. medical reasons with a medical certificate), a mark of zero will be applied to assignments submitted one week late or more. Heavy workloads or malfunctioning computer equipment are not legitimate reasons for late submission. If you know ahead of time that you have a legitimate reason why you cannot hand in the assignment, let the course instructor know before the due date.

Missed exams or assignments

Students who miss an exam for reasons entirely beyond their control may, within one week of the missed event, submit a written request for special consideration to the instructor explaining the reason for missing the test, and attaching appropriate documentation, such as the official University of Toronto medical certificate (www.utoronto.ca/health/form/medcert.pdf).

Academic integrity policy

According to Section B of the University of Toronto's *Code of Behaviour on Academic Matters*, it is an offence for students to:

- use someone else's ideas or words in their own work without acknowledging that those ideas/words are not their own with a citation and quotation marks, i.e. to commit plagiarism.
- include false, misleading or concocted citations in their work.
- obtain unauthorized assistance on any assignment.
- provide unauthorized assistance to another student. This includes showing another student completed work.
- submit their own work for credit in more than one course without the permission of the instructor

- falsify or alter any documentation required by the University. This includes, but is not limited to, doctor's notes.
- use or possess an unauthorized aid in any test or exam.

Violation of the Code of Behaviour on Academic Matters will force the instructor to provide a written report of the matter to the Chair/DeanProvost's and a penalty according to the U of T's guidelines on sanctions will be put into place.

Long-answer questions and answers about lectures

Purpose

The purpose of this assignment is to encourage you to think about course material in a critical way. You will be expected to determine the key points underlying a given block of course material, and then use logic and creativity to design a good question to assess understanding of these points. Finally, you will have to outline a complete answer key for marking your question.

Overview

This assignment will be completed in a group of 2-3 students and your group will hand in a single assignment. For this assignment, you must create a written-answer question suitable for an exam along with an answer key for your question, based on assigned material covered in lectures. You may select your own group, or be assigned to a group. Your group needs to be registered by Fri, Jan 23. Please write the names of your group members on a piece of paper and drop it into the box located outside the main door to SW563.

Submission of long-answer question/answer to Turnitin

Students will be asked to submit their long-answer questions and answers to **Turnitin.com** for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their work 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.com web site:

<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, the course offers a reasonable offline alternative. The student will then be asked to meet with the course instructor to outline and discuss the report before its final submission to demonstrate the process of creating the report according to the academic integrity policy.

Due date

The deadline for submission is Sun, Feb 8 by midnight (11:59 PM). You will need to submit the assignment to Turnitin.com. Internet traffic on turnitin probably is enhanced just before midnight, thus don't wait to the last minute... No extensions will be granted unless with legitimate documentation.

Late assignments receive a penalty of 5% per day.

Evaluation

Your mark will depend on our assessment of the quality and clarity of your question and answer, and the extent to which it tests understanding of concepts, rather than just straight recall of details (marking rubric see below).

Equal work-load assessment

To get a mark for this assignment, **each member of your group must hand in a confidential assessment of work-load sharing** in which they briefly outline whether work was shared equally by all group members (this can be hand-written and dropped into the box in front of SW563). You must put your full name and student# on this assessment, which **only** Ivana Stehlik will review. Ivana Stehlik will keep these reports confidential, they will not be read by anyone else, and will be destroyed after final marks are submitted. If everything was fine, then you need only write: 'equal work by all group members'. If you feel that someone in your group did not do their fair share, you should outline the problem, along with the name of this group member. If there is consensus within a group that one member did not do a fair share of the work, then a penalty may be applied to that individual's mark. **Your work-load assessment must be handed in at the same time as the question & answer assignment.**

Format guidelines

1. Your question should result in an answer worth approximately 15-20 marks. Your answer key must clearly indicate which points would receive marks, and the total mark-value of the question.
2. You may construct multi-part questions as long as the parts are related to each other. You may include figures or tables for interpretation questions if you wish.
3. You may refer to real organisms, places, data, or situations, or you may invent hypothetical ones for your question. For example, you may choose to write a question about *Planta edulis*, a plant that has been recently discovered in Fairyland.
3. This assignment should be between 1 and 2 written pages plus one additional page for any figures or tables you may use. Font size is 11pts in Times Roman, and the line spacing is 1.5 lines.
4. Your answer key must be clear and understandable, but can be written in point form.
5. The best questions/answers will test understanding of material, rather than straight recall of memorized facts.

Tips for writing a good question & answer

Tip 1: One approach to designing an exam question is to first decide on the main points you wish to have emerge in a good answer to your question, then work backwards to design a question that should elicit these answers. Your group should work out together which aspects of the topic you want to highlight in your question.

Tip 2: One way to split the work of this assignment fairly across your group and to ensure your question and answer are reasonable is:

4 group members: have 2 group members write the first draft of a question (without discussing it with the rest of the group!), then have the other 2 group members read the question and compose what they think is a good answer to the question, with assigned marks (without discussing it with the two people who wrote the question!). Then meet as a group of 4 and fine tune the question and answer and discuss what was intended versus how it was interpreted.

3 group members: have one person draft a question (without discussing it with the rest of the group), have each of the other 2 members independently sketch out an answer to the question. Meet as a group—did both members interpret the question the same way? Work together as a group to fine-tune the question and answer.

I strongly advise you to follow Tip 2 when writing your assignment. The most common error on this assignment arises when a group is unable to objectively recognize what answers would reasonably arise from their question, or does not anticipate how a naïve audience will interpret their question.

Handing in your assignment

1. Each group must submit ONE digital copy of their assignment via Turnitin.com by the due date (see overview table page 3). Your assignment must have the full names of all group members and your assigned group number printed on the first page.
2. Each individual must submit their own confidential work-load assessment into the box outside SW563.
3. Marking of this assignment is by your course TA.

Marking scheme (max total 25 pts)

Tests understanding (5 pts max)

- Requires application of concepts to novel data or examples and/or explanation of concepts
- Minimizes straight recall

Question & answer are correct (5 pts max)

- Accurate representation of course material and other published data in the subject area

Question would reasonably lead to answer given (5 pts max)

- Interpretation of question is clear
- Informed person in this course would be likely to give answers on key after first exposure to the question

Clarity and quality (5 pts max)

- Grammar, vocabulary and structure contribute to ease of reading and interpretation
- Citations given where needed
- Question is at the right level for this course

Answer has clear and appropriate mark distribution (2.5 pts max)

- Item of more importance or requiring more explanation have higher marks assigned to them than less important or straight recall answers
- Items of similar difficulty have similar mark value.

Creativity (2.5 pts max)

Correct length: -10% of the total mark if too long or too short