

**Faculty of Science Course Syllabus
Department of Environmental Science**

Economic Botany: Plants & Civilization (ENVS 3226/BIOL 3226)
Fall 2016

Instructor: Rajesh Rajaselvam Email: Rajesh.Rajaselvam@Dal.Ca Office: LSC 3082
Office Hours: Tuesday/Friday 14:30 – 15:30 pm, Thursday by appointments

Lectures: Monday & Thursday 17:35 – 18:55 hrs (LSC/C244)

Tutorials: 6 tutorials (80 min/tutorial)
Wednesday 13:05 – 14:25 pm (LSC/C244 & LSC/8007 Milligan Room)

Course Description

This course explains the importance of plants and their role in human biological and cultural development. It gives an opportunity for students to learn the impact of plants on society for their use as a major food source, as medicine, and in the industrial and recreational world. Additionally, it explains the role of plants in ecosystem conservation and sustainability. Students will involve in hands-on field activities and seminars to investigate plants on the aspect of their uses and interactions.

Course Prerequisites

BIOL 1010.03/BIOL 1020.03 (B- or better) and BIOL 1011.03/BIOL 1021.03 (B- or better) or instructor's permission.

Course Textbook

Levetin, E. and McMahon, K. (2016). *Plants & Society*, 7th Edition. NY: McGraw-Hill. (2012 Edition also can be used)

Learning Objectives

- Explain plant biology and how humans use different plant structures.
- Understand the botanical aspects and origins of important food, medicinal and economically important plants.
- Evaluate the importance of plants and their different roles.
- Analyze the plant structures and interactions with hands on field experiments.
- Demonstrate a deeper knowledge of a chosen medicinal plant through formal group oral presentation and report writing.

Course Assessment

Assignment, Exam, or Presentation	Marks %	Date
Quiz 1	08	Oct 03
Mid-Term Exam	24	Oct 19
Oral Presentation (group presentation)	10	Nov 21, 23 & 24
Quiz 2	08	Dec 05
Lab/Seminar Reports	20	TBA/See Brightspace
Final Exam	30	Scheduled by Registrar
Total	100	

Oral Presentation

Students are expected to do a 12 minute power point presentation (Group) on their chosen Medicinal Plant

<i>*Evaluation rubric</i>	MARKS				
<i>Evaluate the presentation by checking the grade the student achieved in the following categories:</i>					
The presentation was well organized.	5	4	3	2	1
The chosen 'Medicinal Plant' was covered in a clear and understandable fashion.	5	4	3	2	1
The presentation was very well timed.	5	4	3	2	1
Presentation resources were incorporated and used effectively.	5	4	3	2	1
The student/group responded effectively to questions posed by the audience.	5	4	3	2	1
Main points were effectively summarized at the end of the presentation.	5	4	3	2	1
Overall grade: Total (out of 30) is reduced to out of 10					

Grading Scale

Conversion of numerical grades to Final Letter Grades follows the [Dalhousie Common Grade Scale](#)

A+ (90-100)	B+ (77-79)	C+ (65-69)	D	(50-54)
A (85-89)	B (73-76)	C (60-64)	F	(<50)
A- (80-84)	B- (70-72)	C- (55-59)		

Course Policies

Class participation is considered vital.

Tutorial/Seminar sessions are compulsory. Complete attendance of all lectures is highly recommended, since it helps to improve your grade significantly.

Meeting deadlines is mandatory. No late submission without valid reason is accepted for marking.

Brightspace (course web-tool) will be used for regular updates and announcements. TAs are the first point of contact (unless for major issues), and copying the instructor on messages is highly recommended.

Course Content

Schedule (Tentative)

A. Lectures

Week 1

Sep 08 - Introduction & Plants in our lives (Chap1)

Week 2

Sep 12 - Diversity of plant life I (Chap 9)

Sep 15 - Diversity of plant life II (Chap 9)

Week 3

Sep 19 - Plant cell & Life cycles (Chap 2, 5 & 6)

Sep 22 - Human nutrition (Chap 10)

Week 4

Sep 26 - Origin of agriculture I (Chap 11)

Sep 29 - Origin of agriculture II (Chap 11)

Week 5

Oct 03- Grasses (Chap 12) & Quiz 1 (Open-book)... 8 marks

Oct 06 - Legumes & Starchy staples (Chap 13 & 14)

Week 6

Oct 13 - Feeding a hungry world I (Chap 15)

Week 7

Oct 17 - Feeding a hungry world II (Chap 15) & Midterm Review

***Oct 19 (W) - Midterm Exam (13:00 - 14:30 hrs)... 24 marks**

Oct 20 - Current research in plants I

Week 8

Oct 24 - Stimulating beverages I (Chap 16)

Oct 27 - Stimulating beverages II (Chap 16)

Week 9

Oct 31 - Current research in plants II

Nov 03 - Medicinal Plants I (Chap 19)

Week 10

Nov 7 - 11 – Fall Study Break

Week 11

Nov 14 - Medicinal Plants II (Chap 19/Recent Journal Articles)

Nov 17 - Current research in plants III

Week 12

Nov 21, 23 & 24 – Students’ presentation...10 marks

Week 13

Nov 28 - Plant and the environment (Chap 26 & Journal Articles)

Dec 01 - Psychoactive plants (Chap 20) & **Final Revision**

Week 14

Dec 05 - Herbs and spices (Chap 17) & **Quiz 02...8 marks**

Final Exam (Scheduled by Registrar)...30 marks

B. Seminar/Tutorial sessions

Attendance Mandatory, (4 x 5) = 20 marks

Sep 14: Tutorial 1: Field/Wild Plant identification (**Field report required**)

Sep 21: Tutorial 2: Importance of Plants/Plant life cycles (Short video)

Oct 12: Tutorial 3: Food and Beverages: Haskap berry of LaHave Forest (**Report required**)

Oct 19: Midterm Exam

Oct 26: Tutorial 4: Oral presentation introduction/preparation

Nov 02: Tutorial 5: Current research in plants/Lab visit (**Report required**)

Nov 21, 23 & 24: Students’ oral presentations

Nov 30: Tutorial 6: Plants and the Environment (**Report required**)

ACCOMMODATION POLICY FOR STUDENTS

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic under the Nova Scotia Human Rights Act. Students with disabilities are encouraged to register as quickly as possible at the Student Accessibility Services if they wish to receive academic accommodations. To do so please phone 494-2836, e-mail access@dal.ca, drop in at the Mark A. Hill Accessibility Centre, or visit their website www.studentaccessibility.dal.ca.

ACADEMIC INTEGRITY

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. Our Academic Integrity website (<http://academicintegrity.dal.ca>) is an exceptional resource that provides students and faculty access to current university policies. It highlights issues of concern to discourage violations of acceptable conduct, and provides many links to help students succeed honestly.

It is the responsibility of ALL students to be familiar with behaviours and practices associated with academic integrity – **IGNORANCE IS NO EXCUSE FOR PLAGIARISM, CHEATING OR ANY OTHER ACADEMIC OFFENCE.**

At Dalhousie University, plagiarism is defined as “the submission or presentation of the work of another as if it were one’s own.” (Dalhousie Undergraduate Academic Calendar)

Instructors are REQUIRED to forward any suspected cases of plagiarism to the Academic Integrity Officer for their Faculty. If you are accused of plagiarism you will be informed of the allegation by the Faculty of Science Academic Integrity Officer, and a date will be set for a meeting. You may contact Dalhousie Student Advocacy Services to assist you in preparing a defense. Until the case is resolved, your final letter grade will be an “INC”. If it is determined that you have committed an offence you will be

penalized. Penalties are determined on a case by case basis. For more details see the Academic Integrity Website and Academic Regulations (<http://academicintegrity.dal.ca>).

“Plagiarism is considered a serious academic offence that may lead to the assignment of a failing grade, suspension or expulsion from the University.” (Dalhousie Undergraduate Academic Calendar)

STUDENT CODE OF CONDUCT

Dalhousie University has a student code of conduct, and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course.

In general:

“The University treats students as adults free to organize their own personal lives, behaviour and associations subject only to the law, and to University regulations that are necessary to protect

- the integrity and proper functioning of the academic and non – academic programs and activities of the University or its faculties, schools or departments;
- the peaceful and safe enjoyment of University facilities by other members of the University and the public;
- the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises;
- the property of the University or its members.”

The full text of the code can be found here:

http://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Questions?

Visit forums on Brightspace and/or email via Brightspace.

Rajesh Rajaselvam
Rajesh.Rajaselvam@Dal.Ca
LSC 3082 (902.494.4251)