



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF BIOLOGICAL SCIENCES
COURSE OUTLINE

1. Course: Biology 309 – PLANTS AND PEOPLE

Lecture Section: L01 TR 14:00-15:15 SA 235 WINTER 2018

Course Coordinator/Lecturer: Dr. Dae-Kyun Ro BI 393 220-7099 daekyun.ro@ucalgary.ca

Desire 2 Learn (D2L) course name: BIOLOGY 309 L01 - (Winter 2018) – Plants and People
Biological Sciences Department BI 186; (403) 220-3140; biosci@ucalgary.ca

- 2. Prerequisites:** Biology 205 or 231 or 241. See section 3.5.C in the Faculty of Science section of the online Calendar (<http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html>)

NOTE: Not open for credit to Honours, Majors and Minors in the Department of Biological Sciences or to Natural Sciences program students with a Concentration in Biological Sciences.

- 3. Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Module 1 - Midterm Exam	35%	In-Class Feb 15, 2018
Module 2 - Final Exam	35%	
Module 3 - Seminar and written assignment	20%	(10% each)
Module 4 - Debating	10%	

There will be a final exam scheduled by the Registrar's office.

Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Min. Percent Required	90	85	80	77	73	70	67	63	60	55	50

Each piece of work (seminar, written assignments, midterm test or final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

- 4. Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.3](#) of the University Calendar

- 5. Scheduled out-of-class activities: N/A**

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.

- 6. Required Text: Plant and Society, 7th edition, Levetin and McMahon, McGraw Hill Education**

- 7. Examination Policy:** Non-programmable calculators will be allowed for exams. The use of camera devices, MP3 Players and headphones, wireless earbuds or wireless access devices such as smart phones, smart watches, iOS and/or Android, etc., during the examination will not be allowed. Students should also read the Calendar, [Section G](#), on Examinations.

- 8. Writing across the curriculum statement:** In this course, the quality of the student's writing on assignments and exams will be a factor in the evaluation. See also [Section E.2](#) of the University Calendar.

9. **Human studies statement:** indicating whether students in the course may be expected to participate as subjects or researchers. See also [Section E.5](#) of the University Calendar.

ETHICS IN THE BIOLOGICAL SCIENCES

Studies in the Biological Sciences involve the use of living and dead organisms. Students taking laboratory- and field-based courses in these disciplines can expect involvement with and experimentation on such materials. Students perform dissections on dead or preserved organisms in some courses. In particular courses, students experiment on living organisms, their tissues, cells, or molecules. Sometimes field work requires students to collect a variety of living materials by many methods, including humane trapping.

All work on humans and other animals conforms to the Helsinki Declaration and to the regulations of the Canadian Council on Animal Care. The Department strives for the highest ethical standards consistent with stewardship of the environment for organisms whose use is not governed by statutory authority. Individuals contemplating taking courses or majoring in one of the fields of study offered by the Department of Biological Sciences should ensure that they have fully considered these issues before enrolling. Students are advised to discuss any concern they might have with the Undergraduate Program Director of the Department.

10. OTHER IMPORTANT INFORMATION FOR STUDENTS:

Misconduct: Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties.

- (a) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).

- (b) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf.

Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Biological Sciences, Dr. H. Addy by email addy@ucalgary.ca or phone 403 220-3140.

- (c) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 403-220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

- (d) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.

- (e) **Student Union Information:** VP Academic Phone: 403 220-3911 Email: suvpaca@ucalgary.ca
SU Faculty Rep. Phone: 403 220-3913 Email: science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca;
Student Ombuds Office: 403 220-6420 Email: ombuds@ucalgary.ca; <http://ucalgary.ca/provost/students/ombuds>

- (f) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

- (g) **U.S.R.I.:** At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval _____ ORIGINAL SIGNED _____ Date _____

TENTATIVE LECTURE SCHEDULE

DATE	TOPIC
Jan 9 - 11	Reviews on biomolecules and cells
Jan 16 - 18	Plant metabolism and photosynthesis
Jan 23 - 25	Plant life cycle
Jan 30 - Feb 1	Basics of genetics
Feb 6 - 8	Plant systematics and evolution
Feb 13	Human nutrition
Feb 15	Mid-term exam
Feb 19 - 23	Reading break
Feb 27 - Mar 1	Agriculture and breeding
Mar 6 - 8	Food security
Mar 13 - 15	Commercial products from plants
Mar 20 - 22	Medicinal plants and their uses in human society
Mar 27 - 29	Plant biotechnology
Apr 3 - 5	GMO and debate
Apr 10	GMO and debate
Apr 12	Review

LEARNING OUTCOMES

- Know central biomolecules and explain these in lay language
- Understand how cells are organized and function
- Know how photosynthesis occurs to fix carbon dioxide
- Know how plant hormones function to deliver basic plant physiology
- Understand the life cycle of plant
- Know basic concept of plant systematics
- Know key anatomical structures of plant
- Know the history of agriculture and breeding
- Know breeding history of key crop plants
- Know the influence of medicinal plants on human life
- Understand key human nutrition
- Know the benefits of plant-derived products on human health and wellness
- Understand how plant can be genetically modified
- Know pros and cons of genetically modified organisms
- Know several examples of plants that influenced human history (seminar topics)