



UNIVERSITY OF CALGARY

DEPARTMENT OF BIOLOGICAL SCIENCES COURSE OUTLINE

1. Course: PLANT BIOLOGY 403 – PLANT PHYSIOLOGY

Lecture Section(s)	L01	MWF	14:00	ST 147	Fall 2014
Instructor(s):	Dr. Peter Facchini		BI 396	220-7651	pfacchin@ucalgary.ca
	Dr. Dae-Kyun Ro		BI 393	220-7099	daekyun.ro@ucalgary.ca

Desire 2 Learn (D2L) and Blackboard course name: PLBI 403 L01 - (Fall 2014) – Plant Physiology

Biological Sciences Department BI 186 403-220-3140 biosci@ucalgary.ca

2. Prerequisites: Biology 371 or 233 or any two of Biology 231, 241 and 243 and completion of at least 9.5 full-course equivalents.

See section 3.5.C in the Faculty of Science section of the online Calendar
www.ucalgary.ca/pubs/calendar/current/sc-3-5.html

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:

Component	Percentage of final grade	Letter Grade Conversions	
		Mark Range	Letter Grade
Lecture (60%)		>90	A+
		85	A
Midterm Exam*	30%	80	A-
Final Exam**	30%	77	B+
Laboratory (40%)		73	B
		70	B-
		67	C+
		63	C
		60	C-
Assignment 1	5%	55	D+
Assignment 2	10%	50	D
Assignment 3	5%	55	D+
Assignment 4	10%	50	D
Assignment 5	10%	<50	F

* In class

** Scheduled by the Registrar's office

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.6](#) of the University Calendar.

5. Scheduled out-of-class activities: Dates and times of approved class activities held outside of class hours. N/A

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. Course Materials:

Required textbook: *Plant Physiology, Fifth Edition, Taiz, L. and Ziegler, E., (eds), Sinaur Associates Inc., Sunderland, MA*

7. **Examination Policy:** 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 in laboratory reports will be a factor in the evaluation of those reports. 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:

- (a) **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
- (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- (c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: [Calendar entry on students with disabilities](#) and [Student Accessibility Services](#).
- (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **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
- (f) <http://www.ucalgary.ca/secretariat/privacy>.
- (g) **Student Union Information:** VP Academic Phone: 220-3911 Email: suvpaca@ucalgary.ca.
SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca; [Student Ombudsman](#)
- (h) **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.
- (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.

PLBI 403 L01 – (Fall 2014) – Plant Physiology

Tentative Lecture Schedule

Monday September 8	Introduction to Plant Physiology	PJF
Wednesday, September 10	Xylem Transport I	PJF
Friday, September 12	Xylem Transport II	PJF
Monday September 15	Xylem Transport III	PJF
Wednesday, September 17	Phloem Transport I	PJF
Friday, September 19	Phloem Transport II	PJF
Monday September 22	Phloem Transport III	PJF
Wednesday, September 24	Photosynthesis I	PJF
Friday, September 26	Photosynthesis II	PJF
Monday September 29	Photosynthesis III	PJF
Wednesday, October 1	Photosynthesis IV	PJF
Friday, October 3	Respiration and Lipid Metabolism I	PJF
Monday October 6	Respiration and Lipid Metabolism II	PJF
Wednesday, October 8	Respiration and Lipid Metabolism III	PJF
Friday, October 10	Nutrient Assimilation I	PJF
Monday, October 13	Thanksgiving	
Wednesday, October 15	Nutrient Assimilation II	PJF
Friday, October 17	Nutrient Assimilation III	PJF
Monday, October 20	Review	PJF
Wednesday, October 22	Midterm Exam (in class)	
Friday, October 24	Introduction to Growth and Development	DKR
Monday, October 27	Cell Walls	DKR
Wednesday, October 29	Signal Transduction I	DKR
Friday, October 31	Signal Transduction II	DKR
Monday, November 3	Embryogenesis	DKR
Wednesday, November 5	Light and Plant Development I	DKR
Friday, November 7	Light and Plant Development II	DKR
Monday, November 10	Reading Day	
Wednesday, November 12	Plant Hormones I	DKR
Friday, November 14	Plant Hormones II	DKR
Monday, November 17	Plant Hormones III	DKR
Wednesday, November 19	Plant Hormones IV	DKR
Friday, November 21	Plant Hormones V	DKR
Monday, November 24	Plant Hormones VI	DKR
Wednesday, November 26	Control of Flowering	DKR
Friday, November 28	Abiotic Stress I	DKR
Monday, December 1	Abiotic Stress II	DKR
Wednesday, December 3	Biotic Stress	DKR
Friday, December 5	Review	DKR

Tentative Lab Schedule

Week of:

September 8	No Lab
September 15	Lab 1 – Xylem Tension
September 22	Lab 2A – Photosynthesis I
September 29	Lab 2B – Photosynthesis II
October 6	Lab Tutorial
October 13	Lab 3 – Nitrogen Fixation
October 20	No Lab
October 27	Lab 4A – TBA I
November 3	Lab 4B – TBA II
November 10	Lab Tutorial
November 17	Lab 5A – TBA III
November 24	Lab 5B – TBA IV
December 1	Lab Tutorial