

9. **Human studies statement:** Students in the course are not expected to participate as subjects or researchers. See also [Section E.5](#) of the University Calendar.

STUDIES IN THE BIOLOGICAL SCIENCES INVOLVE THE USE OF LIVING AND DEAD ORGANISMS. Students are expected to be familiar with <http://www.ucalgary.ca/pubs/calendar/current/sc-5-1.html> of the on-line calendar.

See also <http://www.ucalgary.ca/pubs/calendar/current/e-5.html>

10. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **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.
- (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points.
- (c) **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.
- (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 (FOIPPA). 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>
- (f) **Student Union Information:** VP Academic Phone: 403 220-3911 Email: suypaca@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/ombudss>
- (g) **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.
- (h) **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.

LEARNING OUTCOMES

- Describe how plant biotechnology is used to develop new crop varieties
- Describe the tissue culture methods that are used to propagate plants
- Describe the general characteristics of plant genomes and plant gene regulation
- Describe the plant 'omics' and how they are important in plant biotechnology
- Have the ability to read, summarize and provide a written critique of high impact plant biotechnology research publications
- Describe how plant biotechnology can be used to increase crop yield and quality
- Describe how plant biotechnology can be used to produce value added products
- Discuss the pros and cons of plant biotechnology and crop improvement to the layperson

Department Approval _____ ORIGINAL SIGNED _____ Date _____

TENTATIVE LECTURE SCHEDULE

<u>Date</u>	<u>Topic</u>	<u>Instructor</u>
January 9	Plant genomes I	PJF
January 11	Plant genomes II	PJF
January 13	Plant genomes III	PJF
January 16	Gene structure and transcriptional regulation I	PJF
January 18	Gene structure and transcriptional regulation II	PJF
January 20	Plant genetic transformation I	PJF
January 23	Plant genetic transformation II	PJF
January 25	Plant genetic transformation III	PJF
January 27	'Omics technologies I	PJF
January 30	'Omics technologies II	PJF
February 1	'Omics technologies III	PJF
February 3	Review	PJF
February 6	MIDTERM EXAM – in class	
February 8	Plant Tissue Culture I	DGM
February 10	Plant Tissue Culture II	DGM
February 13	Post-transcriptional Gene Regulation I	DGM
February 15	Post-transcriptional Gene Regulation II	DGM
February 17	Post-transcriptional Gene Regulation III	DGM
February 20-24	READING WEEK	
March 1	The Chloroplast and Mitochondrial Genomes	DGM
March 3	Herbicide Resistance	DGM
March 6	Insect Resistance	DGM
March 8	Modification of Starch Quality and Quantity I	DGM
March 10	Modification of Starch Quality and Quantity II	DGM
March 13	Debate preparation	DGM
March 15	Debate: Genetically Modified Crops I	DGM
March 17	Debate: Genetically Modified Crops II	DGM
March 20	Debate: Genetically Modified Crops III	DGM
March 22	Debate: Genetically Modified Crops IV	DGM
March 24	Engineering of Male Sterility and Hybrid Seed Production I	DGM
March 27	Engineering of Male Sterility and Hybrid Seed Production II	DGM
March 29	Plant Bioplastics	DGM
March 31	Molecular Mechanisms of Phytoremediation I	DGM
April 3	Molecular Mechanisms of Phytoremediation II	DGM
April 5	Disease resistance I	DGM
April 6	Disease resistance II	DGM
April 10	Intellectual Property and Patenting	DGM
April 12	Review session	DGM

GRADING SCALE

A+	>90%
A	85%
A-	80%
B+	77%
B	73%
B-	70%
C+	67%
C	63%
C-	60%
D+	55%
D	50%
F	<50%