

6. **EXAMINATION POLICY:** No electronic or written aids (eg. cell phones, tablets, computers, PDAs, notes, textbooks) will be allowed during writing of any exams. Non-programmable calculators will be permitted to answer quantitative questions on exams, if applicable, and permission to do this will be clearly indicated on the examination paper. Students should also read the Calendar, Section G, on Examinations: <http://www.ucalgary.ca/pubs/calendar/current/g.html>.
7. In this course, the quality of the student's writing in laboratory reports and on exam answers will be a factor in the evaluation of those reports. See also <http://www.ucalgary.ca/pubs/calendar/current/e-2.html>.

8. **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.

9. **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 K. Student Misconduct (<http://www.ucalgary.ca/pubs/calendar/current/k.html>) 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 at <http://www.ucalgary.ca/emergencyplan/assemblypoints>.**
- (c) **ACADEMIC ACCOMMODATION POLICY.** Students with documentable disabilities are referred to the following links: Calendar entry on students with disabilities: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html>
Student Accessibility Services: www.ucalgary.ca/access
- (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 <http://www.ucalgary.ca/secretariat/privacy>.
- (f) **STUDENT UNION INFORMATION:** VP Academic **Phone:** 220-3911 **Email:** suvpaca@ucalgary.ca.
SU Faculty Rep. **Phone:** 220-3913 **Email:** sciencerep@su.ucalgary.ca Website <http://www.su.ucalgary.ca/home/contact.html>.
Student Ombudsman: www.ucalgary.ca/provost/students/ombuds; ombuds@ucalgary.ca 220-6420
- (g) **INTERNET and ELECTRONIC COMMUNICATION DEVICE Information.** You can assume that in all classes that you attend, **your cell phone should be turned off.** 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.

Department Approval _____ ORIGINAL SIGNED _____ Date _____

Associate Dean's Approval for out of regular class-time activity: _____ ORIGINAL SIGNED _____ Date: _____
C403 W18: 1/3/2018 10:34 AM

BCEM403 Winter 2018: Tentative Lecture Schedule

Date		Topic	Instructor
Jan.	9	Introduction to the course/ Protein purification overview, Enzyme assays	ELV
	10/11	Lab 1: β-galactosidase assays and background search	ELV
	11	The protein extraction buffer,	ELV
	16	Cell breakage methods	ELV
	16/18	Lab 2: Ammonium sulfate precipitation of β-galactosidase	ELV
	18	Centrifugation, CHASM, Protein solubility	ELV
	23	Protein solubility and Ion exchange chromatography	ELV
	24/25	Lab 3: Ion exchange chromatography of β-galactosidase	ELV
	25	Ion exchange chromatography	ELV
	30	Gel filtration chromatography	ELV
Feb	31/1	Lab 4: Gel filtration chromatography of β-galactosidase	ELV
	1	Gel filtration applications and theory	ELV
	6	Protein storage, The Purification Table, Electrophoresis	ELV
	7/8	Lab 5: SDS PAGE of β-galactosidase	ELV
	8	Electrophoresis	ELV
	13	Western blotting protocol	ELV
	14/15	No lab this week	
	15	MIDTERM - in class - 2 hours, starting at 8:45 am. TBA	ELV
	19-23	READING WEEK NO CLASSES	
	26	Protein paper due!	ELV
	27	Western blotting and antibodies-1	GM
	28/29	Lab 6: Western blotting/B-gal kinetics	GM/ELV
Mar	1	Western blotting and antibodies-2	GM
	6	Bioaffinity chromatography-1	GM
	7/8	Lab 7: His-tag chromatography	GM/ELV
	8	Bioaffinity chromatography-2	GM
	13	Protein detection/unconventional chromatography	ELV
	14/15	Lab 8 Protein detection	ELV
	15	Unconventional chromatography	ELV
	20	Membrane protein purification	ELV
	21/22	No lab this week	
	22	CD spectroscopy	EP
	27	CD spectroscopy lab preparation	EP
	28/29	Lab 9: CD spectroscopy of proteins	EP
	29	Fluorescence spectroscopy	EP
April	3	Fluorescence spectroscopy lab preparation	EP
	4/5	Lab 10: Fluorescence spectroscopy	EP
	5	Analysis of CD/Fluorescence data	EP
	10	Synopsis and Review	EP

Final Exam: A two hour exam will be scheduled by the registrar.