



COURSE INFORMATION SHEET

BIOLOGY 231 **INTRODUCTION TO CELLULAR AND MOLECULAR BIOLOGY** Tentative Course Outline and Schedule for Winter 2010

Course description:

A cell is the smallest unit of life. It is highly complex and organized so that cellular activities are precise and efficient. This course introduces students to the basic cell structures and their functions. Cellular processes including energy production, gene expression, reproduction and communication will be discussed.

Course schedules:

Bio 231 (Lectures): A2145. Wednesdays and Fridays, 1 – 2:15 pm

Bio 231T (Tutorials): A2151. Fridays 2:30 – 3:45 pm

Instructor: Dr. Jessmi Ling

Office: A2158

Telephone: 1-403-410-2000 ext. 2919

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Expected learning Outcomes:

1. Students will be able to identify basic cellular structures and explain their functions.
2. Students will be able to describe details of essential cellular activities.
3. Students will gain knowledge of theories behind the various molecular biology techniques.

Attendance:

There are no penalties for non-attendance for lectures or tutorials, except for tests and exams.

Required textbook:

Gerald Karp. *Cell and Molecular Biology: Concepts and Experiments*. 5th or 6th Editions. John Wiley & Sons, Inc.

Tentative course outline:

Date	Topic	Chapter
Jan 6	Introduction to the course	1.1-1.3
Jan 8	Plasma membrane – Structure and function I	4.1 – 4.6
	No tutorial	

Jan 13	Plasma membrane – Structure and function II	4.7 – 4.8
Jan 15	Cytoplasmic membrane systems I Tutorial	8.1 – 8.4
Jan 20	Cytoplasmic membrane systems II	8.5 – 8.9
Jan 22	The mitochondrion Tutorial	5
Jan 27	Test I	
Jan 29	The chloroplast No tutorial	6
Feb 3	Interaction between cells and their environment	7
Feb 5	The cytoskeleton Tutorial	9.1 – 9.4
Feb 10	Cell motility	9.5 – 9.7
Feb 12	Test II No tutorial	
Feb 16	Mid-semester break	
Feb 24	Gene expression	11
Feb 26	Control of gene expression Tutorial	12
Mar 3	Cellular reproduction – mitosis	14.1-14.2
Mar 5	Cellular reproduction – meiosis Tutorial	14.3
Mar 10	Test III	
Mar 12	The immune response I The immune response II (tutorial time)	17.1 – 17.3 17.4
Mar 17	Global impact day (no lectures)	
Mar 19	Intercellular communication I Tutorial	15.1 – 15.3
Mar 24	Intercellular communication II	15.4
Mar 26	Intercellular communication III Tutorial	15.5-15.8
Mar 31	Cell biology of cancer	16.1-16.3

Apr 7	Test IV	
Apr 9	Course review	
Apr 19	Final exam (Room A2133, 1 – 4 pm)	

Note: Tutorials are reviews of topics covered during lectures.

Mark Distribution :

Tests (3 x 20%)	60%
Final exam	40%

Tests will consist of short answer questions based on topics covered during lectures. The tests are not cumulative. Each test carries 20% of the total course marks. The higher scores in three of the four tests will be used to calculate the final course marks and grade. The final exams will consist of multiple-choice questions, short and long answer questions. Questions will be based on topics covered during lectures and corresponding chapters from the required textbook. The final exam will cover topics from the whole course (cumulative).

Grading Scheme:

A+	93 – 100%	C+	66 – 69%
A	86 – 92%	C	62 – 65%
A–	82 – 85%	C–	58 – 61%
B+	78 – 81%	D+	54 – 57%
B	74 – 77%	D	50 – 53%
B–	70 – 73%	F	Below 50%

Important dates:

- The last day to enter a course without permission and /or voluntary withdrawal from a course without financial penalty (Friday, 15th January, 2010).
- The last day to voluntarily withdraw from a course or change to audit without academic penalty (Friday, 12th March, 2010).
- Last day to request revised time for a final exam (Monday, 29th March, 2010).

From the registrar:

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Student Handbook and Academic Calendar. Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a "Course Extension" from the Registrar's Office. Requests for course extensions or alternative examination time must be submitted to the Registrar's Office by the appropriate deadline (as listed in the Academic Calendar <http://www.ambrose.edu/publications/academiccalendar>). Course extensions are only granted for serious issues that arise "due to circumstances beyond the student's control."

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar and the Student Handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean.

Students are advised to retain this syllabus for their records.

Course changes, including adding or dropping a course, may be made during the Registration Revision period, as outlined in the Calendar of Events. All course changes must be recorded on a Registration form, available from the Office of the Registrar. Due to circumstances such as class size, prerequisites or academic policy, the submission of a Registration form does not guarantee that a course will be added or removed from a student's registration. Students may change the designation of any class from credit to audit up to the date specified in the Calendar of Events, although students are not entitled to a tuition adjustment or refund after the Registration Revision period.

Withdrawal from courses after the Registration Revision period will not be eligible for tuition refund. Students intending to withdraw from some or all of their courses must submit a completed Registration form to the Registrar's office. The dates by which students may voluntarily withdraw from a course without penalty are listed in the Calendar of Events. A grade of 'W' will be recorded on the student's transcript for any withdrawals from courses made after the end of the Registration Revision period and before the Withdrawal Deadline (also listed in the Calendar of Events). 'W' grades are not included in grade point average calculations. A limit on the number of courses from which Academic a student is permitted to withdraw may be imposed. Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Office of the Registrar in writing within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of \$50.00 must accompany the appeal to review final grades. If the appeal is sustained, the fee will be refunded.

Academic dishonesty is taken seriously at Ambrose University College as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to give credit to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from Ambrose. Students are expected to be familiar with the policy statements in the current academic calendar and the student handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.