



DEPARTMENT OF SCIENCE

COURSE OUTLINE – Winter 2015

BI 1080 – AN INTRODUCTION TO BIOLOGICAL DIVERSITY

(3-1-3; 3 credits)

INSTRUCTOR: Philip Johnson **PHONE:** 780-539-2863
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OFFICE HOURS: Tues & Thurs 1130-1250 hrs
 Wednesdays 1300-1420 hrs
 Fridays 1000-1120 hrs

PREREQUISITE(S)/COREQUISITE: Biology 30

REQUIRED TEXT/RESOURCE MATERIALS:

“Campbell Biology – Canadian Edition” by Reece et al (2014)
Benjamin Cummings Publishing

OR

“Campbell Biology” by Reece *et al* (9th Ed, 2011)
Benjamin Cummings Publishing

“Biology on the Cutting Edge” edited by Gillies & Hewitt (2011)
Pearson Publishing

Biology 1080 Laboratory Manual 2014/15, University of Alberta

CALENDAR DESCRIPTION: This course examines the major lineages of life on Earth. It provides an overview of evolutionary principles and classification, the history of life, and the key adaptations of prokaryotes, protists, fungi, plants and animals. Laboratories survey the diversity of biological form and function, and introduce students to data collection and scientific writing

LEARNING OUTCOMES:

1. Students should know and apply the principles of scientific enquiry
2. Students should know the principles and evidence for evolution.
3. Students should know taxonomic characteristics of eukaryotic organisms.
4. Students should be able to identify members of each taxon.

COURSE OBJECTIVES:

1. To gain an understanding of the evolution of life on earth.
2. To gain a knowledge of the various taxa of eucaryotic organisms.

CREDIT/CONTACT HOURS: 3 credits (3-1-3)

DELIVERY MODE(S):	Classes	Tuesdays & Thursdays	0830-0950 (J201)
	Labs:	L1 Fridays	1430-1720 (J130)
		L2	1430-1720 (J130)
	Seminars:	S1 Fridays	0830-0920 (J203)
		S2 Fridays	1130-1220

OBJECTIVES: To provide the student with a thorough understanding of current evolutionary theory; to show how the evolutionary process has produced a wide variety of organisms both extinct and extant.

SUPPLEMENTS: Copies of the Lecture Powerpoint presentations will be available as handouts. They can be downloaded from the BI 1080 Moodle page. Other learning resources will be added to the page during the semester.

Mastering Biology Web site

Students can gain access to this resource using the Student Access Kit provided with the text book. The Study Area of this site provides many useful tools including animations, videos and practice quizzes.

TRANSFERABILITY:

BIOL 108 University of Alberta

EVALUATIONS:

Lab. Work	30%
Seminar	10%
Mid-term Exam	20%
Final Exam	40%

GRADING CRITERIA:

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A⁺	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A⁻	3.7	80 – 84	FIRST CLASS STANDING
B⁺	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B⁻	2.7	70 – 72	
C⁺	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C⁻	1.7	60 – 62	
D⁺	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

STUDENT RESPONSIBILITIES:

Refer to the College Policy on Student Rights and Responsibilities at www.gprc.ab.ca/d/STUDENTRIGHTSRESPONSIBILITIES

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the College Student Misconduct: Academic and Non-Academic Policy at www.gprc.ab.ca/d/STUDENTMISCONDUCT

**Note: all Academic and Administrative policies are available at www.gprc.ab.ca/about/administration/policies/

All cell phones should be switched off while students are in class. Should a cell phone ring during class, the first instance will result in a warning to all students; further instances will result in the owner of the cell phone being asked to leave that day's class.

Students will be allowed to use standard non-programmable calculators in exams. **All other electronic devices are prohibited** and should not be brought into exams. Students found to be using a prohibited electronic device during an exam will be required to leave immediately and will receive a mark of zero for that exam.

In order to succeed in Biology 1080:

- it is advisable to attend all classes and laboratory sessions, and complete all assignments in full and on time.
- students should be active participants in class discussions
- students should ask any questions that will clarify the material being presented.

BI 1080
TOPIC OUTLINE & TEXT READINGS
WINTER 2015-2016

TOPIC	Readings (pages) (Campbell's Biology)	
	9 th Edition	Canadian Edition
Introduction to BI 1080		
Unifying themes in Biology	1-27; 328-330	1-30; 353-354
Taxonomy, Phylogeny & Systematics	536-555	576-594
Evolutionary Principles	452-468	484-501
Evolution of Populations	469-487	502-521
Origin of Species	488-506	522-541
History of Life	507-535	542-545; 548-573
Protists	575-599	616-643
Plants – Colonization of Land	600-617	644-663
Plants – Seed plants	618-635	664-683
Plants – Flowering plants	801-820	859-879
Fungi	636-653	684-702
Animals - Overview	654-665	703-715
Animals – Invertebrates	666-696	716-747
Animals - Chordates	697-727	748-775