DEPARTMENT OF SCIENCE

COURSE OUTLINE

Winter 2018

BI 1080 – AN INTRODUCTION TO BIOLOGICAL DIVERSITY

3 (3-1-3) 105 hours for 15 weeks

INSTRUCTOR:	Philip Johnson	**PHONE:**	780-539-2863
OFFICE:	J224	**E-MAIL:**	PJohnson@gprc.ab.ca

OFFICE HOURS:	Mondays	1130-1250 hrs
	Tuesdays	1000-1120 hrs
	Thursdays	1000–1120 hrs

PREREQUISITE(S)/COREQUISITE: Biology 30

REQUIRED TEXT/RESOURCE MATERIALS:

"Campbell Biology – 2nd Canadian Edition" by Reece et al (2018)
Benjamin Cummings Publishing

OR

"Campbell Biology – 1st Canadian Edition" by Reece *et al* (2014)
Benjamin Cummings Publishing

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

Biology 1080 Laboratory Manual 2016/17, 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.

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

DELIVERY MODE(S):	Classes	Tuesdays & Thursdays	0830-0950 (J229)
	Labs:	L1 Fridays	1430-1720 (J130) or
		L2 Wednesdays	1430-1720 (J130)
	Seminars:	S1 Fridays	0830-0920 (J226) or
		S2 Mondays	1130-1220 (J226)

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**	
A	**4.0**	**85 – 89**	
A^{-}	**3.7**	**80 – 84**	
B^{+}	**3.3**	**77 – 79**	
B	**3.0**	**73 – 76**	
B^{-}	**2.7**	**70 – 72**	
C^{+}	**2.3**	**67 – 69**	
C	**2.0**	**63 – 66**	
C^{-}	**1.7**	**60 – 62**	
D^{+}	**1.3**	**55 – 59**	
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**

STATEMENT ON PLAGIARISM AND CHEATING:
Refer to the Student Conduct section of the College Admission Guide at http://www.gprc.ab.ca/programs/calendar/ or the College Policy on Student Misconduct: Plagiarism and Cheating 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 results 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 2017-2018

TOPIC	Readings (pages) (Campbell's Biology)	
	1st Canadian Edition	2nd Canadian Edition
Introduction to BI 1080		
Unifying themes in Biology	1-30; 353-354	1-28; 355-356
Taxonomy, Phylogeny & Systematics	576-594	579-602
Evolutionary Principles	484-501	492-509
Evolution of Populations	502-521	510-529
Origin of Species	522-541	530-549
History of Life	542-545; 548-573	550-554; 557-581
Protists	616-643	625-651
Plants – Colonization of Land	644-663	652-671
Plants – Seed & Flowering plants	664-683	672-691; 867-871
Fungi	684-702	692-711
Animals - Overview	703-715	712-725
Animals – Invertebrates	716-747	726-758
Animals - Chordates	748-775	759-784