



**DEPARTMENT OF SCIENCE
COURSE OUTLINE – WINTER 2017**

**BI 1080 A3– AN INTRODUCTION TO BIOLOGICAL DIVERSITY
(3-1-3; 3 credits)**

INSTRUCTOR: Beatrice Amar **PHONE:** 780-539-2031
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OFFICE HOURS: Tuesdays and Thursdays - 1.00 - 2.30 p.m.

PREREQUISITE(S)/COREQUISITE: Biology 30

REQUIRED TEXT/RESOURCE MATERIALS:

1. “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
2. “Biology on the Cutting Edge” edited by Gillies & Hewitt (2011) Pearson Publishing
3. Biology 1080 Laboratory Manual, University of Alberta (GPRC Bookstore)

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:

After the successful completion of the course, the students will be able to:

1. Apply the principles of scientific enquiry
2. Explain the principles and evidence for evolution.
3. Describe the taxonomic characteristics of eukaryotic organisms.
4. 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 eukaryotic organisms.

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

Lectures: Tuesdays and Thursdays 8.30 - 9.50 a.m. (J201)

Labs: Wednesdays and Fridays 2.30 - 5.20 p.m. (J130)

DELIVERY MODE(S):	Classes	Tuesdays and Thursdays	8.30 - 9.50 a.m. (J201)
	Labs:	L1 Fridays	2.30 - 5.20 p.m. (J130)
		L2 Wednesdays	2.30 - 5.20 p.m. (J130)
	Seminars:	S1 Fridays	8.30 - 9.20 a.m. (J203)
		S2 Mondays	11.30 - 12.20 a.m. (J201)

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 Power point presentations will be available before class and 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

***Warning:** Although we strive to make the transferability information in this document up-to-date and accurate, **the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities.** Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page <http://www.transferalberta.ca> or, if you do not want to navigate through few links, at <http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>

**** 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**

EVALUATIONS:

Assignments	5%
Laboratory	30%
Seminar	10%
Mid-term Exam	20%
<u>Final Exam</u>	<u>35%</u>
Total	100

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

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:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

**Note: all Academic and Administrative policies are available on the same page.

ADDITIONAL INFORMATION

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.

**BI1080 A3 WINTER 2017
TOPIC OUTLINE & TEXT READINGS**

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