



DEPARTMENT OF SCIENCE

COURSE OUTLINE – FALL 2014

BI1050 A2 – THE ORGANIZATION AND DIVERSITY OF LIFE

INSTRUCTOR: Dr. Sean Irwin **PHONE:** 539-2860
OFFICE: J221 **E-MAIL:** sirwin@gprc.ab.ca

OFFICE HOURS: Monday 10:00 -11:20; Wednesday and Thursday 1:00-2:20

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

“Campbell Essential Biology” by Simon, Reece and Dickey, Benjamin Cummings Publishing, 5th edition, 2012 (or 4th edition, 2010).

CALENDAR DESCRIPTION:

A study of biological concepts and mechanisms illustrated by current examples of medical and environmental importance.

CREDIT/CONTACT HOURS: 3 Credits (3-0-0) UT, 45 hours

DELIVERY MODE(S):

Lectures – Tuesdays and Thursdays
10:00 – 11:20
Rm J201

OBJECTIVES:

Students will gain an understanding of basic biological concepts with a focus on cell biology, genetics, evolution and diversity.

TRANSFERABILITY: University of Alberta
University of Calgary
University of Lethbridge
Athabasca University
Augustana Faculty, University of Alberta

* BI1050 is not accepted for credit to students whose major or minor is in the Biological Sciences at the University of Alberta, University of Calgary or Augustana University.

** 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: Quizzes – 20%
Exam 1 – 20%
Exam 2 – 20%
Exam 3 – 20%
Exam 4 – 20%

All exams are non-cumulative. The dates of quizzes and exams will be announced in class.

STUDENT RESPONSIBILITIES: Students are expected to attend all classes, complete the assigned readings and write all quizzes and exams. Failure to write a quiz or exam will result in a grade of zero unless appropriate documentation is provided.

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at https://www.gprc.ab.ca/files/forms_documents/Student_Misconduct.pdf or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/.

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

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

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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/.

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COURSE SCHEDULE:

Topics	Required Text Readings (pages)
1. Introduction to BI 1050	---
2. Introduction & the scientific method	1-20
3. Chemistry and Biological Molecules	22-28, 37-53
4. Classification and Taxonomy	285-291
EXAM 1	
5. Cell Structure	54-73, 83-89
6. Introduction to Metabolism	75-82
7. Respiration and Fermentation	90-105
8. Photosynthesis	106-118
EXAM 2	
9. Cell Division and Reproduction	120-143
10. Patterns of Inheritance	144-162, 165-171
11. Structure and Function of DNA	172-187
12. Biotechnology	207-210, 218-227, 234-237
EXAM 3	
12. Evolution: how populations evolve	242-267
13. Evolution: how biological diversity evolves	268-285
15. Viruses and prokaryotes	188-194, 299-305
16. Protists	306-313
17. Plants and Fungi	314-335
18. Animals	336-362
EXAM 4	