



DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – Winter 2017

BI0130 (A3 & B3): Biology Grade 12 Equivalent – 5 (5-0-1.5)

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OFFICE HOURS: As posted on my office door.

CALENDAR DESCRIPTION: The concepts in this course include nervous and endocrine systems; human reproduction and development; cell division, genetics and molecular biology; populations and community dynamics.

PREREQUISITE(S)/COREQUISITE: BI0120 (Biology 20); EN0120 (English 20-1 or 20-2) or EN0130 placement; MA0110 (Math 10C) or MA0123 (Math 20-3) or MA0120 placement. See also Academic Upgrading Science Requirements.

REQUIRED TEXT/RESOURCE MATERIALS: Inquiry into Biology-McGraw-Hill Ryerson. You must also print the lab manual which will be available on Moodle.

DELIVERY MODE(S): Classroom instruction and lab. Use of Moodle required.

COURSE OBJECTIVES:

Detailed course objectives are found in the course syllabus that will be provided to you.

The course is divided into 4 units:

Unit 1: The Nervous and Endocrine Systems

Unit 2: Reproduction and Development

Unit 3: Cell Division, Genetics, and Molecular Biology

Unit 4: Populations and Community Dynamics

LEARNING OUTCOMES: As stated by Alberta Education, upon successful completion of this course the student will be able to:

- Explain how the nervous system controls physiological processes
- Explain how the endocrine system contributes to homeostasis

- Explain how survival of the human species is ensured through reproduction
- Explain how human reproduction is regulated by chemical control systems
- Explain how cell differentiation and development in the human organism are regulated by a combination of genetic, endocrine and environmental factors.
- Describe the processes of mitosis and meiosis
- Explain the basic rules and processes associated with the transmission of genetic characteristics
- Explain classical genetics at the molecular level
- Describe a community as a composite of populations in which individuals contribute to a gene pool that can change over time
- Explain the interaction of individuals in a population with one another and with members of other populations and explain, in quantitative terms, the change in populations over time
- Lab Skill objectives (focus on scientific inquiry) Initiate, plan, perform record, analyze, interpret, communicate and work in a team

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information

<http://alis.alberta.ca/ps/tsp/transferralberta.html>

**** 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:

| | |
|---------------------------------|-----|
| Unit 1 Test..... | 10% |
| Unit 2 Test..... | 5% |
| Unit 3 Test..... | 10% |
| Unit 4 Test..... | 5% |
| Moodle Quizzes..... | 5% |
| Labs, Quizzes, Assignments..... | 15% |
| Midterm (Cover Units 1&2)..... | 25% |
| Final (Covers Units 3&4)..... | 25% |

All tests and exams **MUST** be written at the scheduled times unless **PRIOR** arrangements have been made with the instructor. A missed test (exam) will result in a score of **ZERO** on that test (exam). In order to defer an exam due to illness you will require a medical note. Quizzes will be written in class or labs; no opportunity will be provided for missed quizzes and thus a missed quiz will result in an automatic 0. The final exam is 3 hours long and is scheduled by the registrars' office during GPRC Exam weeks.

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

| Alpha Grade | 4-point Equivalent | Percentage Guidelines | Alpha Grade | 4-point Equivalent | Percentage Guidelines |
|-------------|--------------------|-----------------------|-------------|--------------------|-----------------------|
| A+ | 4.0 | 90-100 | C+ | 2.3 | 67-69 |
| A | 4.0 | 85-89 | C | 2.0 | 63-66 |
| A- | 3.7 | 80-84 | C- | 1.7 | 60-62 |
| B+ | 3.3 | 77-79 | D+ | 1.3 | 55-59 |
| B | 3.0 | 73-76 | D | 1.0 | 50-54 |
| B- | 2.7 | 70-72 | F | 0.0 | 00-49 |

COURSE SCHEDULE/TENTATIVE TIMELINE:

| | | |
|--|-----|-------------------------|
| Biology 0130 consists of four units: dates: | | Tentative test and exam |
| Unit 1: The Nervous and Endocrine Systems (4 weeks) | 10% | January 31 |
| Unit 2: Reproduction and Development (2 weeks) | 5% | February 10 |
| Midterm (Units 1 + 2) | 25% | February 14 |
| Unit 3: Cell Division, Genetics, and Molecular Biology (5 weeks) | 10% | March 21 |
| Unit 4: Populations and Community Dynamics (2 weeks) | 5% | April 7 |
| Final Exam (Units 3 + 4) | 25% | April 17-27 |

STUDENT RESPONSIBILITIES:

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

If you are late for a lab, you might not be permitted to do the lab as important safety concerns are always addressed at the beginning of each lab period. The lab is certified as a Level 2 biohazard facility and the regulations that apply will be given to you during your first lab. If you miss a lab, you will not have the opportunity for a make-up lab. You automatically receive a grade of 0 for that lab.

Attendance: If you miss 10 or more classes (including labs) you may be debarred from the final exam.

Lateness: Lateness will not be tolerated.

Cell Phone Use: Turn them off during class time.

Labs and assignments: These are due on the day announced in class, lab or as posted on Moodle. If you submit your assignment or lab late you may be docked 10% per day late. **A late assignment or lab will not be accepted once the assignment or lab has been returned to other students.**

Tests and Exams: Use of any electronic communication devices during Tests and Exams is not permitted.

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 Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <http://www.gprc.ab.ca/about/administration/policies/>