DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2015

Biology 0120 A2/B2 Biology Grade 11 Equivalent 5(4-0-2) HS

INSTRUCTOR:	Rick Scott	**PHONE:**	780-539-2953
OFFICE: J121		**EMAIL:**	RScott@gprc.ab.ca

OFFICE HOURS:	Monday 11:00 – 12:00 Wednesday 10:00 – 11:00 Thursday 10:00 – 11:00 or by appointment

DELIVERY MODES: Lecture and Labs plus use of Moodle and online resources.
CREDIT/CONTACT HOURS: 5(4-0-2) Four hours of lecture and 2 hours of lab per week.
Lecture: TWRF 13:00 – 13:50 E305 Lab: Monday 13:00- 14:50 or 15:00 – 16:50 J130

PREREQUISITES: Prerequisites: SC0110 (Science 10); EN0110 (English10-1 or 10-2) or EN0120 placement; MA0110 (Math 10C) or MA0113 (Math 10-3) or MA0120 Placement. See Also Academic Upgrading Science Requirements.

REQUIRED TEXT/RESOURCE MATERIALS: Inquiry into Biology by Colbourne et.al. McGraw-Hill Ryerson. ISBN-13 978-0-07-096052-7 (This is also the text for BI0130.) You must also print the lab manual which will be available on Moodle. Please keep in mind the colleges printing policy.

CALENDAR DESCRIPTION: The major concepts in this course include human systems (digestion, respiration, circulation, immune, excretory and motor systems); energy and matter exchange in the biosphere; population change; photosynthesis and cellular respiration

LEARNING OUTCOMES: Biology 0120 has four main units. The major learning outcomes for students successfully completing this course are to:

Unit 1 Energy and Matter Exchange in the Biosphere (Chapters 1 and 2)

1. explain the constant flow of energy through the biosphere and ecosystems
2. explain the cycling of matter through the biosphere
3. explain the balance of energy and matter exchange in the biosphere, as an open system, and explain how this maintains equilibrium.

Unit 2 Ecosystems and Population Change (Chapters 3 and 4)

1. explain that the biosphere is composed of ecosystems, each with distinctive biotic and abiotic characteristics

2. explain the mechanisms involved in the change of populations over time.

Unit 3 Photosynthesis and Cellular Respiration (Chapter 5)

1. relate photosynthesis to storage of energy in organic compounds
2. explain the role of cellular respiration in releasing potential energy from organic compounds.

Unit 4 Human Systems (Chapters 6, 7, 8, 9 and 10)

1. explain how the human digestive and respiratory systems exchange energy and matter with the environment
2. explain the role of the circulatory and defence systems in maintaining an internal equilibrium
3. explain the role of the excretory system in maintaining an internal equilibrium in humans through the exchange of energy and matter with the environment
4. explain the role of the motor system in the function of other body systems.

OBJECTIVES:

The objectives of Biology 0120 are to cover the curriculum of Biology 20 as taught in Alberta High Schools, to foster an appreciation for the science of biology and its applications, and to provide students with a hands on lab experience to acquire practical skills needed to study biology.

COURSE SCHEDULE/TENTATIVE TIMELINE: Sept. 2 – Dec 19, 2013

Week 1	Energy Transfer Chapter 1	
Week 2	Cycles of Matter Chapter 2	
Week 3	Ecosystems and their diversity Chapter 3	Unit Test 1 Tue. Sept. 15
Week 4	Ecosystems and their diversity cont.	
Week 5	Mechanisms of Population Change Chapter 4	
Week 6	Mechanisms cont. begin Photosynthesis Chapter 5	Unit test 2 Wed. Oct. 7
Week 7	Photosynthesis and Respiration Chapter 5	
Week 8	Digestion and Human Health Chapter 6	**Midterm** Mon. Oct 19
Week 9	Respiratory System Chapter 7	Unit test 3 Tue Oct. 27
Week 10	Respiratory System cont.	
Week 11	Circulation (Nov 10) and Fall Break (Nov 11- 13)	
Week 12	Circulation and Immunity Chapter 8	
Week 13	Excretion and Interaction of Systems Chapter 9	
Week 14	The Muscular System and Homeostasis Chapter 10	Unit Test 4 Tue. Dec 8

A lab schedule will be handed out in class.

EVALUATIONS:

Unit Tests……..……..20%
Lab reports and quizzes ……20%
Assignments……...10%
Midterm……..25%
Final……...….25%

The Midterm covers Units 1 and 2. The final covers Units 3 and 4

The final Exam will be scheduled by the Registrar during Dec 10-19.

Quizzes plus lab report and assignment due dates will be given during Lab time.

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**

STUDENT RESPONSIBILITIES:

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

If you are absent from a test or exam, you MUST let the instructor know (by email or voice message) on the day of the missed test that you will not be writing the test or as soon as possible after. Also you may be asked to provide a doctor's certificate that explains your absence for that particular time. Only then will an alternate time be scheduled for you to write a different test or exam.

Quizzes will be written on the day announced in lab. If you miss a quiz you will automatically get a zero as there is no opportunity to make up missed quizzes

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 biohazard zone 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.

Tardiness (Lateness): Come on time!

Cell Phone or other Electronic Equipment Use

Sending or receiving electronic messages during class or lab time will not be tolerated.

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:

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/

TRANSFERABILITY: This course is equivalent to the Alberta Learning Biology 20 curriculum, and is listed as such in the Alberta Transfer Guide.

** 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