



## DEPARTMENT OF ACADEMIC UPGRADING

### COURSE OUTLINE – Fall 2011

#### SC0110 5(5.5-0-1.5) - Science Grade 10 Biology and Chemistry Equivalent

**INSTRUCTOR:** Weixing Tan, PhD      **PHONE:** (780)539-2793  
**OFFICE:** C409      **E-MAIL:** wtan@gprc.ab.ca

**OFFICE HOURS:** 2:30-5:30 Wednesday and Thursday or by appointment

#### **PREREQUISITE(S)/COREQUISITE:**

SC0100, EN0090 and MA0100 or permission from department

#### **TRANSFERABILITY:**

This course is equivalent to Alberta Science 10 Biology and Chemistry.

\*\* 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.

#### **REQUIRED TEXT/RESOURCE MATERIALS:**

Addison Wesley, *Science 10*.

#### **Other supplies:**

You will need a binder, lined paper, unlined white paper, pencil, calculator, stapler, and lab coat. Many resources for this course are posted on Moodle, a computer-based course management system. You may access Moodle via any computer with an Internet link. You may sign in to use the computers in A205 during the daytime or in the library during evenings and weekends.

**CALENDAR DESCRIPTION:**

This course covers three of the four units in the Alberta Education Science 10 curriculum. The major biology and chemistry concepts covered include: energy and matter in chemical change, cycling of matter in living systems, and energy flow in global systems.

**CREDIT/CONTACT HOURS:**

SC0110 is a 5-credit course with 7 contact hours each week.

**Session Details:** September 8, 2011 – December 21, 2011.

**Course Schedule:** Dates for tests, labs, and assignments will be announced in class and/or entered on the calendar on Moodle.

**Lecture Schedule:** The course is scheduled for Monday, Tuesday, Wednesday, and Friday from 10:00am – 11:20pm, and Thursday from 10:00 – 10:50. Since the course is taught in a variety of ways, the class may be meeting in one of three places on a given day:

1) Classroom J229 for Monday, Tuesday, Thursday and Friday  
J130 for Wednesday ONLY

2) Biology Lab J130

3) Computer Lab A205.

It is important to attend classes regularly to find out what is happening and where, or alternatively check out the announcements in Moodle.

**DELIVERY MODE(S):**

SC0110 is lecture-based and is supplemented with labs and computer-based learning.

**OBJECTIVES AND COURSE SYLLABUS:**

This course has been designed to provide you with an introduction to the world of biology and chemistry. It incorporates learning opportunities for you in both the science and computer labs. There are several biological themes explored in this course including: scientific method; microscopy; cell structure and function; membrane structure and function; botany; energy transfer; and diversity of life. There are also several chemistry themes covered including, lab safety, matter, atoms and elements, the periodic table, ionic and molecular compounds, acids and bases, and equations.

A course syllabus, which lists the detailed course objectives, can be found on Moodle.

Table 1. List of major units and key subjects

<b>BIOLOGY</b>	
Unit 1: Introduction to Science and Biology	Unit 4: The Cell as an Open System
Unit 2: Microscopy	Unit 5: The Plant as an example of a Multi-Cellular Organism
Unit 3: Cells and The Theory of Life	Unit 6: Energy and matter exchange in the biosphere
<b>CHEMISTRY</b>	
Unit 1: Introduction to Chemistry	Unit 4: Ionic and Molecular Compounds
Unit 2: Matter	Unit 5: Acids and Bases
Unit 3: Atoms, Elements and the Periodic Table	Unit 6: Chemical Changes and Equations

**Lab Manual and Schedule**

The lab manual is available in Moodle. Please bring a copy with you to the first lab. Labs are not held each week; however, when scheduled, they each require 2 hours. Please pay attention to announcements in terms of detailed lab schedule in Moodle and/or during lectures.

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. Due to safety reasons, you will NOT have the opportunity for a make-up lab, if you miss a lab, and you will automatically receive a grade of zero for that lab. You cannot use another person’s data or class data to compile a lab report.

**EXAMINATIONS:**

**Tests –65%**

- ..... **BIOLOGY:**
- ..... Test 1 – Units 1 & 2 – 9%
- ..... Test 2 – Units 3 & 4 – 12%
- ..... Test 3 – Units 5 & 6 – 12%

- ..... **CHEMISTRY:**
- ..... Test 1 – Units 1 & 2 – 9%
- ..... Test 2 – Units 3 & 4 – 14%
- ..... Test 3 – Units 5 & 6 – 9%

**Assignments – 20%**

**Labs – 15%**

### **Assignments and Lab Reports:**

All assignments and labs are weighted equally.

Final assignment grade is calculated using raw scores.

***Your assignments and lab reports must be your own work.*** That is, I do not want to see identical sentences, diagrams etc.

Lab work is an essential part of science, and as such **you must pass the labs to pass the course.**

### **General Rules for Exams, Tests, Assignments, and Lab Reports**

As per the College calendar, students are responsible to “write tests and final examinations at the times scheduled by the instructor or the Office of the Registrar”.

Students are also expected to submit all assignments and lab reports according to the deadlines.

Any students missing a test/exam, or not submitting an assignment/lab report on the required due date, will receive a **grade of zero** for that exam/test/assignment/lab report, unless:

1. A notification is made to the instructor prior to the time of the test or the due date, AND,
2. A doctor’s note or a satisfactory explanation under the extreme circumstance is provided.

If you must write an exam/test or submit an assignment/lab report after the required date, you will lose 20%, unless a doctor’s note is provided. Once a test/exam/lab report/assignment has been handed back to the class, there is no opportunity for a late write or hand-in. The student will be assigned a grade of zero for that test/exam/lab report/assignment.

**GRADING CRITERIA:**

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A <sup>+</sup>	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A <sup>-</sup>	3.7	80 – 84	FIRST CLASS STANDING
B <sup>+</sup>	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B <sup>-</sup>	2.7	70 – 72	
C <sup>+</sup>	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C <sup>-</sup>	1.7	60 – 62	
D <sup>+</sup>	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

**Statement on Plagiarism and Cheating:**

The instructor reserves the right to use electronic plagiarism detection services. Although you work together in pairs in the lab, you are to write separate reports, which are your own work.

Electronic devices, other than simple calculators, are not allowed into tests or exams.

**Student Responsibilities** (AUD Student Classroom Department Guidelines)

The Academic Upgrading Department (AUD) is an adult education environment. Students are expected to show respect for each other as well as faculty and staff. They are expected to participate fully in achieving their educational goals in a timely manner.

Certain activities are disruptive and not conducive to an atmosphere of learning. In addition to the ***Student Rights and Responsibilities*** as set out in the College calendar, the following guidelines will maintain an effective learning environment for everyone. We ask the cooperation of all students in the following areas of classroom deportment.

1. Students are expected to turn off cell phones during class time or in labs.
2. Refrain from disruptive talking or socializing during class time.
3. Be respectful of others regarding food or beverages in the classroom. Clean up your eating area and dispose of garbage.
4. Recycle paper, bottles and cans in the appropriate containers.
5. Students are expected to be punctual. Arrive on time for classes and remain for the duration of scheduled classes or related activities.
6. Children are not permitted in the classrooms.

### **Attendance**

If students miss more than 15% (or 10 days) of classes per semester in any course, they may be given a failing grade for the course. It is the student's responsibility to notify his/her instructor of any extenuating circumstances. You are responsible for getting the notes and handouts for material missed from your fellow classmates.

### **Electronic Devices**

No unspecified electronic devices will be allowed in tests/exams.