



**School of Arts & Science
BIOLOGY DEPARTMENT**

**BIOL 103- 002A and 002B
Non-Majors Biology 1
2017 Winter**

COURSE OUTLINE

The Approved Course Description is available on the web @ [D2L Biology 100](#)

Ω Please note: this outline will be electronically stored for five (5) years only.
It is strongly recommended students keep this outline for your records.

1. Instructor Information

(a)	Instructor:	Geoff Haywood, Ph.D.		
(b)	Office Hours:	12.30 – 1.20 PM Tue; 11.30 AM – 12.20 PM Th.		
(c)	Location:	F246		
(d)	Phone:	370-3196	Alternative Phone:	
(e)	Email:	haywoodg@camosun.bc.ca		
(f)	Website:	D2L		

2. Intended Learning Outcomes

1. Work in a culture of scientific endeavor and use critical thinking skills.
2. Identify the critical roles played by water in the maintenance of life on earth.
3. Explain the structures and roles of biological macromolecules, particularly carbohydrates, proteins and lipids.
4. Describe the complexity and diversity of cellular ultrastructure and the functions of significant
5. Cellular organelles, in particular: chloroplasts, mitochondria, ribosomes, Golgi apparatus, cilia and flagella.
6. Describe basic metabolism and energy producing pathways within the cell.
7. Explain the concept of the gene in the contexts of both Mendelian inheritance as well as the biochemical expression of genetic information.
8. Relate the structure of nucleic acids to the storage and replication of genetic information.
9. Explain the mechanisms used to regulate and translate genetic information into the assembly of functional proteins.
10. Describe the interactions between the environment and long-term changes in genetic information, particularly
11. Describe the anatomy of the human digestive, cardiovascular and excretory systems and explain how the physiology of these organ systems is related to organization at the molecular and cellular level.
12. Describe the structure and explain the functions of the human immune system. Apply this knowledge to immune dysfunction, particularly allergies and AIDS.

3. Required Materials

(a) Textbook: T Audesirk, Audesirk, G and Byers, B. 2008. Biology: Life on Earth, 8^h ed., Pearson Education, San Francisco.

(b) Lab Manual Biology 103

4. Course Content and Schedule

Timetable of lectures and Labs.

Biology 103 – Tentative Schedule

The following tentative schedule is subject to change if deemed necessary by the instructor.

WK	DATE (week of)	THEORY TOPIC	LAB TOPICS (Lab #)
1	Jan 9-13	Introduction to Biology Scientific Method Basic Chemistry	Greetings/Safety/graphs/dilutions
2	Jan 16-20	Water, pH Macromolecules	Lab 1 Measurements, pH, buffers
3	Jan 23-27	Cell biology Membrane transport, Energy	Lab 2 Microscopes Cells
4	Jan 30- Feb 3	Enzymes Photosynthesis, Metabolism	Lab 3 Macromolecules
5	Feb 6-10	Cell division. mitosis Theory Midterm Exam 1	Lab 4 Osmosis
6	Feb 13-17	Reading Break College Closed	No Labs
7	Feb 20-24	Meiosis Genetics, Mendel	LAB EXAM 1
8	Feb 27 – Mar 3	Inherited disorders Environmental effects	Lab 5 Enzymes
9	Mar 6-10	DNA replication and Protein synthesis	Lab 6 Mitosis
10	Mar 13-17	Homeostasis, tissues and organ systems Theory Midterm Exam 2	Lab 7 Inheritance
11	Mar 20-24	Human physiology Respiration, Nervous system	Lab 8 + 9 Cat Lab + Nutrition
12	Mar 27-31	Human circulation Digestive system	Lab 10 Mammalian anatomy
13	Apr 3- 7	Human Excretory system	Lab 10 Mammalian Anatomy
14	Apr 10-13	Friday April 14 Good Friday College Closed	LAB EXAM 2
	Apr 18 - 21	Final Exams	

(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED

STUDENT ASSIGNMENTS

Assignments will be given out on the Friday of each week and are due in on the following Wednesday – by the end of the lecture period.

Assignments received on the day due will be marked out of 100% - but if not received until the following day will be marked out of 80%. There will be a further drop of 20% for any assignment not received until Friday. Any assignment not received by the following Wednesday (1 week after given out) will receive a zero mark.

Assignments **MUST** be printed as hard copies. No hand-written assignments will be accepted. Assignments will **NOT** be accepted as emails unless there is a serious illness involved in their tardy return – for which a doctor's note will be mandatory.

Plagiarism will **NOT** be tolerated. Any case will automatically disqualify the student from marks and may result in disciplinary action on the part of the college up to and including expulsion.