



School of Arts & Science
BIOLOGY DEPARTMENT
BIOL 126-A
Physiological Basis of Life
2008P

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

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:	Geoffrey P. Haywood, Ph. D.		
(b)	Office Hours:	Thursday 10.30 -11.20 AM.		
(c)	Location:	E 304		
(d)	Phone:	370 3984	Alternative Phone:	516 4248
(e)	Email:	haywoodg@camosun.bc.ca		
(f)	Website:	TBA		

2. Intended Learning Outcomes

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

1. Classify and describe the unique structure and function of the four groups of macromolecules and discuss how these relate to their properties within living cells.
2. Differentiate among the various transport mechanisms available to mobilize molecules across cell membranes.
3. Name and outline the pathways utilized by cellular respiration and photosynthesis and explain the importance of these processes to living organisms.
4. Describe the basic steps of DNA replication and indicate its role in cell division and inheritance.
5. Demonstrate knowledge of the basic steps of protein synthesis, identifying the roles of DNA, mRNA, tRNA, amino acids and proteins in the processes of transcription and translation.
6. Identify and explain the principles and consequences of the cell cycle, including both mitosis and meiosis.
7. Examine the basic principles of Mendelian genetics and describe how these relate to other topics encompassed in this course.
8. Describe and explain the role of growth regulators in the control of plant growth, development and physiology.
9. Describe and explain the diversity of control mechanisms in animal systems, including the role of the endocrine and nervous systems.
10. Conduct experiment tests and use analytical techniques in the laboratory to demonstrate a few biological properties of macromolecules, cellular respiration, photosynthesis, DNA technology and plant and animal control systems.

3. Required Materials

(1) Textbook Campbell N.A. & J.B. Reece 2007 7th. Ed. Pearson Education.

(20 Lab Manual Biol 126 Camosun College Sp 08.

4. Course Content and Schedule

Timetable of lectures and Labs.

Day	LECTURE TOPIC	CHAPTER	LAB
May 5 - 6 (L1-3)	Characteristics of Life	2,3,4,5	No Lab
May 8 - 9 (L4-6)	Metabolism	8	Tools for discovery
May 12 -13 (L7-9)	Glycolysis and Respiration	9	Enzymes
May 15 -16 (L10-12)	Fermentation / Photosynthesis	9, 10	Cellular Respiration
May 19 - 20 (L13 - 14)	Photosynthesis / Theory Exam 1	10	Photosynthesis
May 22 - 23 (L15 - 17)	Plant Nutrition	37	Chloroplast Isolation
May 26 - 27 (L 18 - 20)	Animal Nutrition	41	Lab Exam 1
May 29 - 30 (L21 - 23)	Cell membrane	7	Diffusion/Osmosis
June 2 -3 (L24 - 26)	Intercellular Communication	11	Nematode Expt. 1
June 5 - 6 (L 27 - 29)	Cell Cycle and Mitosis	12	Nematode Expt. 2
June 9 - 10 (L 30 - 31)	DNA Replication/ Theory Exam 2	15/16	Fruit Fly 1
June 12 - 13 (L32-34)	Protein Synthesis	17	Lab Exam 2
June 16 - 17 (L 35 -37)	The Genome	19	Fruit Fly 2
June 19 - 20 (L 38 - 40)	Sources of Variation	13	No Lab

5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

- (a) Total Assignments and Quizzes 15%
- (b) Theory Exams I & II 2 @ 15% each = 30%
- (c) Lab Exams I & II 2@ 15% each = 30%
- (d) Final Theory Exam (Date TBA) 25%

6. Grading System

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Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

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