

BIOL 3078.03 and MARI 3074.03

PRINCIPLES OF ANIMAL PHYSIOLOGY and MARINE ANIMAL PHYSIOLOGY, 2010

LECTURES: Monday, Wednesday, Friday, 8.30-9.30am, Room 236 LSC

LABORATORIES: BIOL 3078.03

B01: Monday, 2.30-5.30pm, Room 7009, Biology Department.

B02: Tuesday, 2.30-5.30pm, Room 7009, Biology Department.

MARI 3074.03

B01: Wednesday, 2.30-5.30pm, Room 7009, Biology Department.

B02: Thursday, 2.30-5.30pm, Room 7009, Biology Department.

TEXTS: Hill, R., G. Wyse and M. Anderson. *Animal Physiology*. Second edition. 2008.

Knisely, K. *A Student Handbook for Writing in Biology*. Second edition. 2004.

Stabler, T., L. Smith, G. Peterson and A. Lokuta. *PhysioEx8.0 for Human Physiology*. (This is a laboratory supplement)

EVALUATION:

1 mid-term test	20%
Laboratory assignments (reports, quizzes)	30%
1 Student Seminar	10%
1 December exam	40%
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Total	100%

The December exam will have questions on lecture and laboratory material. This exam will be scheduled by the Registrar's office during the official examination period at the end of the term. The mid-term test will be 50 minutes long and will be scheduled during a lecture period.

Laboratory assignments and evaluation information are given in the laboratory manual. The student seminar is described in a separate handout. This class subscribes to Turnitin.com, a web-based service that checks for originality in submitted papers.

Please inform us in advance if you are unable to attend your student seminar, mid-term test or exam. They will normally only be rescheduled for illness, and we will require a medical certificate from your doctor. Make up exams will be given **within one week** of the scheduled exam date at a mutually convenient time.

ACCOMODATION REQUESTS:

"Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic under the Nova Scotia Human Rights Act. Students who require academic accommodation for either classroom participation or the writing of tests, quizzes and exams should make their request to the Office of Student Accessibility & Accommodation (OSAA) prior to or at the outset of each academic term (with the exception of X/Y courses). Please see www.studentaccessibility.dal.ca for more information and to obtain Form A - Request for Accommodation.

A note taker may be required to assist a classmate. There is an honourarium of \$75/course/term. If you are interested, please contact OSAA at 494-2836 for more information.

Please note that your classroom may contain specialized accessible furniture and equipment. It is important that these items remain in the classroom so that students who require their usage will be able to participate in the class."

ACADEMIC INTEGRITY:

At Dalhousie University, we respect the values of academic integrity: honesty, trust, fairness, and responsibility. As a Dalhousie student and a member of the academic community, you are expected to abide by these values and the policies which enforce them. Please see the following link for a concise description of plagiarism and the University's policies regarding it. <http://academicintegrity.dal.ca/Policies/>

SKILLS:

The four major skills you will receive in this class are: laboratory/practical, written communication, oral communication, and numeric/statistical. You will also have the opportunity to develop several other useful skills including experimental design, critical thinking, library/web searches, use of computers and teamwork. These are more general types of skills featured in many other classes. Further information on these skills is given in the laboratory manual.

The following scheme will be used to convert marks to letter grades when the final grade is submitted to the Registrar's office in April. The Registrar's office does not record a grade for the Fall term part of Full year classes so the final grade that is submitted at the end of the year will be recorded on your transcript for both the Fall and Winter term.

GRADING SCHEME:

Letter gradeA+
A
A-
B+
B
B-
C+
C
C-
D
F**Mark equivalent**90-100
85-89
80-84
75-79
70-74
65-69
62-64
58-61
54-57
50-53
below 50**Profs/Instructors:****Location****Phone****E-mail**

Dr. Nina Hamacher

Room TBA

TBA

nhamacher@dal.ca

Dr. Nancy McAllister-Irwin

Room 6130

494-3818

irwinn@dal.ca**Lecture Schedule BIOL 3078 and MARI 3074, Fall 2010**

Week of	Day	Lec. #	Topic	Lecturer
Sept 6 - 10	Fri		Introduction & Administration	
Sept 13 - 17	Mon	1	Introduction to physiology - Integration of the sciences	Hamacher
	Wed	2	Function on the ecological stage - Animals, Environments & Evolutionary processes	Hamacher
	Fri	3	Homeostasis	Hamacher
Sept 20 - 24	Mon	4	Molecules & cells in animal physiology - cell membranes	Hamacher
	Wed	5	Transport of solutes & water	Hamacher
	Fri	6	Enzymes	Hamacher
Sept 27 - Oct 1	Mon		1. Seminar on Enzymes	
	Wed	7	Nervous systems & Neurons	Hamacher
	Fri	8	Neuronal function – Membrane potentials	Hamacher
Oct 4 - 8	Mon	9	Action potential & Propagation of Action potentials	Hamacher
	Wed	10	Synapses	Hamacher
	Fri		2. Seminar on Neurophysiology	
Oct 11 - 15	Mon		Holiday - no class	
	Wed	11	Sensory receptors	Dr. R. Croll
	Fri	12	Audition	Dr. R. Croll
Oct 18 - 22	Mon	13	Chemoreception	Dr. R. Croll
	Wed	14	Vision	Dr. R. Croll
	Fri		3. Seminar on Sensory systems	
Oct 25 - 29	Mon		Midterm	
	Wed	15	Biological clocks	Hamacher

	Fri	16	Endocrine physiology	Hamacher
Nov 1 - 5	Mon	17	Control of endocrine systems	Hamacher
	Wed		4. Seminar on Hormones	
	Fri	18	Reproduction	Hamacher
Nov 8 - 12	Mon	19	Reproduction of placental mammals	Hamacher
	Wed	20		
	Fri		Holiday - no class	
Nov 15 - 19	Mon		5. Seminar on Reproduction	
	Wed	21	Muscle types & Muscle contractions	Hamacher
	Fri			
Nov 22 - 26	Mon	22	Muscle energetics & Neural control of skeletal muscle	Hamacher
	Wed		6. Seminar on Muscles	Hamacher
	Fri	23	Control of movement	
Nov 29 - Dec 3	Mon	24	Nutrition	Hamacher
	Wed	25	Feeding	Hamacher
	Fri		7. Seminar on Digestion	Hamacher
Dec 6 - 7	Mon	26	Digestion & Absorption	