



**UNIVERSITY OF
CALGARY**

DEPARTMENT OF BIOLOGICAL SCIENCES
COURSE OUTLINE

1. Course: ZOOLOGY 375 - AN INTRODUCTION TO INVERTEBRATE ZOOLOGY

Lecture Section(s)	L01	MWF	15:00	ST 135	Fall 2014
Labs:	B01/02/03/04	T	9:00/12:00/15:00/18:00	BI 046	
	B05/06/07	R	9:00/12:00/15:00	BI 046	
Instructor(s):	Dr. R. Longair		BI 042	220-7387	longair@ucalgary.ca

D2L site: ZOOL 375 L01 - (Fall 2014) - An Introduction to Invertebrate Zoology

Biological Sciences Department BI 186 403-220-3140 biosci@ucalgary.ca

- 2. Prerequisites:** **Biology 371 or 233 or any two of Biology 231, 241, and 243 and completion of at least 9.5 full-course equivalents.**
See section 3.5.C in the Faculty of Science section of the online Calendar
www.ucalgary.ca/pubs/calendar/current/sc-3-5.html

- 3. Grading:** The University policy on grading and related matters is described sections [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

One midterm lecture exam	30 %	One final laboratory exam	20 %
Midterm laboratory exam	15 %	One final lecture exam	30 %
One assignment	5 %		100 %

Your letter grade for the course will be determined by summing the weighted numerical scores earned for each component listed above and converted using the table on the course outline and posted on the D2L site for the course. **Note:** Letter grades are not determined for any individual component but the table may be used to give you an approximate sense of your standing during the term.

* There will be a final exam scheduled by the Registrar's office

Passing grades in both the lab and lecture components are essential if the student is to pass the course as a whole.

Each piece of work (assignment, laboratory report, midterm test or final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade, bearing in mind that an F grade will result if the student does not pass the overall lab OR the overall lecture component.

Grading Scale

A	85
A-	80
B+	75
B	70
B-	65
C+	60
C	55
C-	50
D+	45
D	40
F	<40

- 4. Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.6](#) of the University Calendar

5. **Scheduled out-of-class activities: Midterm Lecture Exam – 16 October 2014; 1900-2100** **ST 140**

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a conflict with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **Course Materials:** Biology of the Invertebrates, Custom Adaptation from Pechenik, McGraw-Hill, 7th edition.
Biology of the Invertebrates. Custom Adaptation from General Zoology Laboratory Guide, Lytle & Meyer. McGraw-Hill. 16th ed
Dissection kit.
7. **Examination Policy:** No aids (calculators, etc.) are allowed on tests or examinations. Students should also read the Calendar, [Section G](#), on Examinations.
8. **Writing across the curriculum statement:** e.g. In this course, the quality of the student's writing in assignments will be a factor in the evaluation of the assignments. See also [Section E.2](#) of the University Calendar.

ETHICS IN THE BIOLOGICAL SCIENCES

Studies in the Biological Sciences involve the use of living and dead organisms. Students taking laboratory- and field-based courses in these disciplines can expect involvement with and experimentation on such materials. Students perform dissections on dead or preserved organisms in some courses. In particular courses, students experiment on living organisms, their tissues, cells, or molecules. Sometimes field work requires students to collect a variety of living materials by many methods, including humane trapping.

All work on humans and other animals conforms to the Helsinki Declaration and to the regulations of the Canadian Council on Animal Care. The Department strives for the highest ethical standards consistent with stewardship of the environment for organisms whose use is not governed by statutory authority. Individuals contemplating taking courses or majoring in one of the fields of study offered by the Department of Biological Sciences should ensure that they have fully considered these issues before enrolling. Students are advised to discuss any concern they might have with the Undergraduate Program Director of the Department.

9. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties
- (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- (c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: [Calendar entry on students with disabilities](#) and [Student Accessibility Services](#).
- (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPPA). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also
- (f) <http://www.ucalgary.ca/secretariat/privacy>.
- (g) **Student Union Information:** VP Academic Phone: 220-3911 Email: suvpaca@ucalgary.ca.
SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca; [Student Ombudsman](#)
- (h) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (i) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval ORIGINAL SIGNED _____ Date _____

Associate Dean's Approval for
out of regular class-time activity: ORIGINAL SIGNED _____ Date: _____
Z375 F14; 9/3/2014 2:03 PM

Zoology 375 - An Introduction to Invertebrate Zoology

TEXTS: Required: Biology of the Invertebrates, Custom Adaptation from Pechenik, McGraw-Hill, 7th edition.
Recommended: Biology of the Invertebrates. Custom Adaptation from General Zoology Laboratory Guide, Lytle & Meyer. McGraw-Hill. 16th ed.
Other Supplies: Dissecting Equipment.

DATE	LECTURE TOPIC	LAB TOPIC	LAB MANUAL READINGS	
September	8	Introduction to the course Invertebrate diversity	NO LABS	
	10	Protozoa and the origin of animals		
	12	Porifera 1		
	15	Porifera 2	Introduction: microscopes and invertebrates; Porifera	Chapter 1; pp. 9-22 Chapter 6; pp.35-36, 38-39 & 50-52
	17	Cnidaria 1		Chapter 7; pp. 55-64
	19	Cnidaria 2		
	22	Cnidaria 3	Cnidária	Chapter 8; pp. 65-84
	24			
	26	Platyhelminthes 1		
	29	Lecture Cancelled	Platyhelminthes	Chapter 9; pp. 85-101
October	1	Platyhelminthes 2		
	3	Platyhelminthes 3		
	6	Mollusca 1	Mollusca 1	Chapter 10; pp. 107-118
	8	Mollusca 2		
	10	Mollusca 3		
	13	No Lecture - Thanksgiving	Mollusca 2	Chapter 10; pp. 118-127
	15	Mollusca 4		
	16	Out-of-class Midterm Lecture Exam		
	17	Mollusca 5		
	20	Annelida 1		
22	Annelida 2	MIDTERM LAB EXAM		
24	Annelida 3			
27	Annelida 4	Annelida	Chapter 11; pp. 129-144	
29	Nematoda 1			
31	Nematoda 2			
November	3	Nematoda 3		
	5	Nematoda 4	Nematoda/Arthropoda 1	Chapter 12; pp. 145-158 Chapter 13; pp. 159-172
	7	Arthropoda 1		
	10	No Lecture - Reading Days	No Labs This Week	
	12	Arthropoda 2		
	14	Arthropoda 3		
	17	Arthropoda 4	Arthropoda 2	Chapter 13; pp. 172-192
	19	Arthropoda 5		
	21	Arthropoda 6		
	24	Echinodermata 1	Echinodermata	Chapter 14; pp. 193-205
26	Echinodermata 2			
28	Echinodermata 3			
December	1	Echinodermata 4		
	3	Other Invertebrates	FINAL LAB EXAM	
	5	Other Invertebrates		