



**CAMOSUN COLLEGE**  
*School of Arts & Science*  
*Department*

**VR 244: Invertebrate Diversity/Ecology**  
**Winter, 2015**

***COURSE OUTLINE***

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**The Approved Course Description is available on the web** † *Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for your records.*

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**1. Class info:**

Lectures Mondays, 8:30 – 9:20 am, Rm 248 Ewing Bldg  
Lab: Thursdays, 9:30 am – 12:20 pm; Rm 244, Fisher Bldg.

**2. Instructor Information**

- (a) Instructor: Joachim (Yogi) Carolsfeld
- (b) Office hours: Mondays, 9:30-11:30 or by appointment
- (c) Office Location: Fisher 344D
- (d) Phone: 250-380-7585
- (e) E-mail: [yogi@worldfish.org](mailto:yogi@worldfish.org)

***2. Intended Learning Outcomes***

At the completion of this course, students will possess the expertise and proficiency to be able to:

- 1. Use standard biological lab equipment, especially microscopes.
- 2. Use logic, critical thinking, and the scientific method in combination with biological terminology pertinent to invertebrates to evaluate and assess the current status of BC invertebrates.
- 3. Use biological identification keys for selected groups of invertebrates of B.C.
- 4. *Sample fresh water and marine habitats, soil and terrestrial debris in order to determine the types of living organisms present.*
- 5. *Preserve and/or culture various selected invertebrates.*
- 6. *Sample terrestrial and aquatic habitats for invertebrates and understand basic methods of habitat restoration.*
- 7. Describe biodiversity issues including rare and endangered species, introduced species, overharvesting impacts and affects of habitat loss.
- 8. Discuss the principles of systematics, evolution *and wildlife management* as they apply to the important ecological or economic invertebrate species of B.C.
- 9. Discuss the importance and impact of policy and legislation on wildlife management issues.

**3. Required Materials**

- (a) none – see notes on recommended reference texts on reserve & handouts
- b) Lectures and notes available on course website.

4. Course Content and Draft Schedule

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<u>Week #</u>	<u>Date</u>	<u>Lecture</u>	<u>Laboratory</u>
1	Jan. 5/8	Introduction Evolution, Taxonomy Porifera	Biodiversity & Taxonomic keys Porifera (Sponges) <b><u>Laboratory #1</u></b>
2	Jan. 12/15	Cnidaria & Ctenophores (Jellies, comb-jellies))	Coelenterates, Cnidaria, Ctenophores <b><u>Laboratory #2</u></b>
3	Jan. 19/22	Platyhelminthes & Nematodes	Flatworms & round worms; parasitic life <b><u>Laboratory #3</u></b>
4	Jan. 26/ 29	Annelids	Annelids and Allies Taxonomy Wars <b><u>Laboratory #4</u></b>
5	Feb. 2/5	Mollusca & Lophophorates <i>1<sup>st</sup> critter sheet due</i>	Mollusca & Lophophorates <b><u>Laboratory</u></b>
6	Feb. 9/12	Family day	Reading break
7	Feb. 16/19	Legislation lecture & Assignment	Arthropods <b><u>Laboratory #5</u></b>
8	Feb. 23/ 26	Midterm exam (covers up to and including Arthropods)	Terrestrial & FW arthropods Tardigrades Bioindicators <b><u>Laboratory #6</u></b>
9	Mar. 2/5	Echinoderms & Urochordates <i>COSEWIC due</i>	Echinoderms & Urochordates <b><u>Laboratory#7</u></b>
10	Mar. 9/11	Legislation project presentations	Shaw Aquarium Field Trip
11	Mar. 16/18	Invertebrates as Indicator Species Guest Lecture <i>TBC</i> <i>2<sup>nd</sup> Critter Sheet due</i>	Bioindicators Survey and Sampling design
12	Mar. 23/26	Survey and Sampling design Habitat restoration	Survey and Sampling design Restoration
13	Mar. 30/ Apr. 2	Ecology, Management	Field trip Museum?
14	Apr. 6/9	Review	Invert Lab Exam
15		Final Exam	

## 5. Basis of Student Assessment (Weighting)

### (a) Assignments

Field trip reports: 5%  
Weekly lab quizzes: 5%  
Critter features: 10%  
Lab reports – up to 5% bonus

### (b) Exams

Mid-term exam: 10%  
Final Laboratory exam: 15%  
Final exam: 30%

### (c) Other:

COSEWIC assignment: 5%  
Oral presentation (legislation): 15%  
Legislation briefing notes: 5%

## 6. Grading System

The following percentage conversion to letter grade will be used:

A+ = 90 - 100%	B = 73 - 76%	D = 50 - 59%
A = 85 - 89%	B- = 70 - 72%	F = 0.0 - 49%
A- = 80 - 84%	C+ = 65 - 69%	
B+ = 77 - 79%	C = 60 - 64%	

## 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, Registrar's Office or the College web site at <http://www.camosun.bc.ca>

### ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

[www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html](http://www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html)