



CAMOSUN COLLEGE
School of Arts & Science
Department of Environmental Technology

ENVR-244-001
Invertebrate Diversity/Ecology
Fall 2019

COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/envr.html>

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

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|------------------|--|--------------------|
| (a) Instructor | Steve Gormican | |
| (b) Office hours | TBD | |
| (c) Location | F340A | |
| (d) Phone | 250-370-3423 | Alternative: _____ |
| (e) E-mail | gormicans@camosun.bc.ca | |
| (f) Website | | |
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2. Intended Learning Outcomes

Upon completion of this course the student will 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 effects 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) Texts: None required; reference books provided in labs.
- (b) Lectures and notes available on course D2L website.

4. Course Content and Schedule

<u>Week #</u>	<u>Date</u>	<u>Lecture</u> Wednesday 9:30 – 10:20 Y211	<u>Laboratory</u> Friday 13:30-16:20 F244
1	Sep 4/6	Porifera (Sponges)	<u>Laboratory #1</u> Course Introduction; Taxonomic overview of course
2	Sep 11/13	Cnidaria (Hydrozoans, Jellies, Anemones, Corals) (and Ctenophores)	<u>Laboratory #2</u> Porifera (Sponges)
3	Sep 18/20	Platyhelminthes (Flatworms, Tapeworms, Fukes)	<u>Laboratory #3</u> Cnidaria (Hydrozoans, jellies, anemones, corals) (Ctenophores: comb jellies)
4	Sep 25/27	Legislation Biodiversity Introduced species	Field trip
5	Oct 2/4	Mollusca	<u>Laboratory #5</u> Shaw Center of the Salish Sea
6	Oct 9/11	Mollusca Midterm Review	<u>Laboratory #4</u> Platyhelminthes Nemertea, rotifera, Nematoda
7	Oct 16/18	Midterm	<u>Laboratory #6</u> Mollusca
8	Oct 23/25	Annelids	<u>Laboratory #7</u> MID TERM Lab/Lec EXAM (covers up to and including Molluscs)
9	Oct 30/Nov 1	Arthropoda (crabs, lobsters, shrimp (insects, spiders, millipedes, centipedes etc.)	<u>Laboratory #8</u> Annelids
10	Nov 6/8	Arthropoda (Cont'd.)	<u>Laboratory #9</u> Arthropoda
11	Nov 13/15	Echinodermata	<u>Laboratory #10</u> <u>Arthropoda</u>
12	Nov 20/22	Urochordates & minor phyla	<u>Laboratory #11</u> Echinodermata
13	Nov 27/29	Invertebrate presentations	Invertebrate survey
14	Dec 4/6	Invertebrate presentations	FINAL EXAM Lec/Lab <u>Review</u>

5. Basis of Student Assessment (Weighting)

(a) Assignments:

COSEWIC assignment:	5%
Invertebrate species review (Crittter sheets X2):	15%
Research paper presentations:	10%
Labs; Survey reports:	10%

(b) Exams:

Mid-term lecture exam:	15%
Mid- term Lab exam:	10%
Final Laboratory exam:	15%
Final Lecture exam:	20%

- (c) It is expected that all exams, quizzes, assignments, labs must be completed, and field trip(s) attended, to successfully complete the course. Potential absences or late assignments are requested to be discussed prior to scheduled dates.

6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

n/a

8. College Supports, Services and Policies



Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. GRADING SYSTEMS <http://camosun.ca/about/policies/index.html>

The following two grading systems are used at Camosun College:

1. 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		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. 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 at <http://camosun.ca/about/policies/index.html> 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 are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
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.