



**School of Arts & Science
BIOLOGY DEPARTMENT**

**BIOL 124-01
Evolution and Diversity
2006F**

COURSE OUTLINE

The Approved Course Description is available on the web @
<http://www.camosun.bc.ca/learn/calendar/index.html>

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: | Ted Davis, M.Sc., Ph.D | | |
| (b) | Office Hours: | M Th & F -10:30-11:30; Tu -1:00-2:00; W – 3:30-4:30. | | |
| (c) | Location: | F340A | | |
| (d) | Phone: | 370-3388 | Alternative Phone: | |
| (e) | Email: | davist@camosun.bc.ca | | |
| (f) | Website: | | | |

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.)

Upon completion of this course the student will be able to:

1. Identify and classify living organisms to their major taxonomic groupings, and to list their defining characteristics.
2. Describe the major lines of evidence for evolution.
3. Explain major topics in evolutionary theory.
4. Discuss the nature of scientific knowledge in biology, its limits and strengths, and how it is documented.

3. Required Materials

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|-----|-------|--|
| (a) | Texts | 1) Textbook: Campbell, N.A. and J. B. Reece. 2005. <i>Biology</i> , 7 th ed. 2) BIOL 124 Laboratory Manual – Fall 2006 |
| (b) | Other | |

4. Course Content and Schedule

(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

Lecture: Monday, Thursday, and Friday, 8:30-9:20 AM (Section 001)

Lab: Section 001A: Tuesday, 9:00 – 11:50 AM. Section 001B: Tuesday, 2:30 – 5:20 PM.

You should plan on a *minimum* of 2 hours of study outside of scheduled lecture time, on an ongoing basis, for each hour of lecture.

| Week | Dates | Labs | Lecture |
|------|-------------------|--|--|
| 1 | Sept 5 – Sept 6 | No lab this week. | 1) No class (Labour Day – Sept 4) 2) Introduction/macromolecules 3) Systematics I |
| 2 | Sept 11 – Sept 15 | Lab 1: Phylogeny and classification | 4) Systematics II 5) Systematics III 6) Evolution I |
| 3 | Sept 18 – Sept 22 | Lab 2: Evolution | 7) Evolution II 8) Darwin's revolution 9) <i>Film - Beyond Genesis</i> |
| 4 | Sept 25 – Sept 29 | Lab 3: Natural Selection; Microscopes | 10) Microevolution I 11) Microevolution II 12) Macroevolution |
| 5 | Oct 2 – Oct 6 | Lab 4: Prokaryotes | 13) Prokaryotes I 14) Prokaryotes II 15) Midterm I (Oct 6) – through macroevolution |
| 6 | Oct 9 – Oct 13 | Lab 5: Protists | 16) No Class (Thanksgiving – Oct 9) 17) Protists I 18) Protists II |
| 7 | Oct 16 – Oct 20 | Lab Exam I | 19) Protists III 20) Fungi 21) Seedless Plants I |
| 8 | Oct 23 – Oct 27 | Lab 6: Fungi | 22) Seedless Plants II 23) Seed Plants III 24) Seed Plants IV |
| 9 | Oct 30 – Nov 3 | Lab 7: Seedless plants <u>Lecture: Introduction to Animals</u> | 25) Plant Life Cycles – review 26) Porifera and Cnidarians 27) Platyhelminthes, Nematoda |
| 10 | Nov 6 – Nov 10 | Lab 8: Seed Plants | 28) Mollusca 29) Annelida, Rotifera 30) Midterm II (Nov 10) – through plants |
| 11 | Nov 13 – Nov 17 | Lab 9: Kingdom Animalia: Porifera, Platyhelminthes, Nematoda and Mollusca | 31) No Class (Remembrance Day – Nov 13) 32) Arthropoda I 33) Arthropoda II |
| 12 | Nov 20 – Nov 24 | Lab 10: Kingdom Animalia: Annelida, Rotifera, Arthropoda and Echinodermata | 34) Echinodermata 35) Chordates through Agnatha 36) Sharks and bony fish |
| 13 | Nov 27 – Dec 1 | Lab 11: Kingdom Animalia: Phylum Chordata | 37) Amphibians 38) Reptiles I 39) Reptiles II |
| 14 | Dec 4 – Dec 8 | Lab Exam II | 40) Birds 41) Mammals I 42) Mammals II |

Final examination: December 11 – 19 – DO NOT MAKE OTHER PLANS IN THIS PERIOD!!!

5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

| | | |
|-----|-------------|-------------------------|
| (a) | Assignments | Assignments/quizzes 20% |
| (b) | Quizzes | |
| (c) | Exams | Lab Exam I 12.5% |
| | | Midterm I 15% |
| | | Midterm II 15% |
| | | Lab Exam II 12.5% |
| | | Final Exam 25% |

| | | |
|-----|---|--|
| (d) | Other (eg, Attendance, Project, Group Work) | |
|-----|---|--|

6. Grading System

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

Standard Grading System (GPA)

| Percentage | Grade | Description | Grade Point Equivalency |
|------------|-------|--------------------------------------|-------------------------|
| 95-100 | A+ | | 9 |
| 90-94 | A | | 8 |
| 85-89 | A- | | 7 |
| 80-84 | B+ | | 6 |
| 75-79 | B | | 5 |
| 70-74 | B- | | 4 |
| 65-69 | C+ | | 3 |
| 60-64 | C | | 2 |
| 50-59 | D | | 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 at camosun.ca or 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. |

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.

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

Van De Graaff, K. M, and J. L. Crawley. 2005. *A Photographic Atlas for the Biology Laboratory*, 5th ed.

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.

Midterms I and II and the Lab Exams will be unit exams. The final lecture exam will be cumulative.

ADDITIONAL INFORMATION

Be sure that you are familiar with the **General Department Policies**, which are stated in the lab manual. These policies cover absenteeism, late assignments (but see below), attendance, exam scheduling, plagiarism as well as other topics and will be discussed during the first lab meeting.

Each student is required to sign a **Laboratory Safety Contract** and give it to the instructor prior to commencing laboratory work in the course.

No programmable devices are allowed in exams.

ATTENDANCE

You are expected to attend all classes. Assignments are due at the **beginning** of the class period on the due date. Assignments not handed in at the beginning of class will be considered late, for which there is a **15% penalty/day**. Also, if you miss a class or are late, you are very likely to miss a handout, assignment or other essential information. Classes begin on time, so don't be late! It is your responsibility to obtain this material from either the instructor or other students. **Laboratory attendance is mandatory. 10% of the lab mark will be deducted for each unexcused lab absence.**