



School of Arts & Science
ENVIRONMENTAL TECHNOLOGY DEPARTMENT
ENVR 246-001
Plant Diversity and Ecology
2008F and 2009W

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

⌘ 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:	Dr. DAVID BLUNDON		
(b)	Office Hours:	10:30 – 11:20 AM Monday, Wednesday and Thursday 1:30 – 2:20 PM Wednesday and Friday		
(c)	Location:	Y-304		
(d)	Phone:	250-370-3984	Alternative Phone:	
(e)	Email:	blundond@camosun.bc.ca		
(f)	Website:	D2L		

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. Use standard biological lab equipment, especially microscopes.
2. Use logic, critical thinking, and the scientific method in combination with biological terminology pertinent to Plants, Algae and Fungi to evaluate and assess the current status of BC plant ecosystems.
3. Use biological identification keys for selected groups of algae, fungi, non-vascular and vascular plants of B.C.
4. Prepare herbarium specimens.
5. Preserve and/or culture various selected algae, fungi (sterile technique) and non-vascular plants.
6. On sight, identify most native non-vascular and vascular plants to Division and class and some to Order, Genus or Species.
7. Describe biodiversity issues, including rare and endangered species, introduced species, overharvesting impacts and affects of habitat loss.
8. Sample terrestrial and aquatic habitats for algae, fungi, non-vascular and vascular plants and understand the basic methods of habitat restoration.
9. Discuss the importance and impact of policy and legislation on ecosystem management issues.

3. Required Materials

- Apostol, D. and M. Sinclair. 2006. **Restoring the Pacific Northwest: The Art and Science of Ecological Restoration in Cascadia**. Island Press, Washington. (required text)

- Blundon, D and MOFR, 2008. **Agrostology** (available on D2L)

(b) Other

- Arora, D. 1991. All That the Rain Promises and More. **A Hip Pocket Guide to Western Mushrooms**. 263 p.
- Douglas, G.W., D.V. Meidinger and J. Pojar (editors). **Illustrated Flora of British Columbia, Volumes 1 to 8**: B.C. Ministry of Sustainable Resource Management and B.C. Ministry of Forests. Victoria.
 - ✓ Douglas, G.W., G.B. Straley, D.V. Meidinger, and J. Pojar (editors). 1998. **Illustrated Flora of British Columbia. Volume 1: Gymnosperms and Dicotyledons (Aceraceae Through Asteraceae)**. 436 p.
 - ✓ Douglas, G.W., G.B. Straley, D.V. Meidinger, and J. Pojar (editors). 1998. **Illustrated Flora of British Columbia. Volume 2: Dicotyledons (Balsaminaceae Through Cucurbitaceae)**. 401 p.
 - ✓ Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 1999. **Illustrated Flora of British Columbia. Volume 3: Dicotyledons (Diapensiaceae Through Onagraceae)**. 423 p.
 - ✓ Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 1999. **Illustrated Flora of British Columbia. Volume 4: Dicotyledons (Orobanchaceae Through Rubiaceae)**. 427 p.
 - ✓ Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 2000. **Illustrated Flora of British Columbia. Volume 5: Dicotyledons (Salicaceae Through Zygophyllaceae) And Pteridophytes**. 389 p.
 - ✓ Douglas, G.W., D.V. Meidinger and J. Pojar (editors). 2001. **Illustrated Flora of British Columbia, Volume 6: Monocotyledons (Acoraceae Through Najadaceae)**. 361 p.
 - ✓ Douglas, G.W., D.V. Meidinger and J. Pojar (editors). 2001. **Illustrated Flora of British Columbia, Volume 7: Monocotyledons (Orchidaceae Through Zosteraceae)**. 379 p.
 - ✓ Douglas, G.W., D.V. Meidinger and J. Pojar (editors). 2001. **Illustrated Flora of British Columbia, Volume 8: General Summary, Maps and Keys**. 457 p.
- E-Flora BC Electronic Atlas of the Plants of British Columbia.
<http://www.geog.ubc.ca/~brian/florae/efloralinks.html>
- Erickson, W.R. and D.V. Meidinger. 2007. **Garry oak (*Quercus garryana*) plant communities in British Columbia: a guide to identification**. B.C. Min. For. Range, Res. Br., Victoria, B.C. Tech. Rep. 040.
http://www.for.gov.bc.ca/hfd/pubs/Docs/P/P081_printPDF.pdf
- **Flora of North America** Volumes 22 (Juncales), 23 (Cyperaceae), 24 (Poaceae) and 25 (Poaceae). Edited by Flora of North America Editorial Committee. Oxford University Press.
- Gayton, D. 2001. **Ground Work: Basic Concepts of Ecological Restoration in British Columbia**. <http://www.forrex.org/publications/FORREXSeries/ss3.pdf>
- Gayton, D. 2004. **Historical Variability of Natural Disturbances in British Columbia. A Literature Review**. <http://www.forrex.org/publications/FORREXSeries/FS12.pdf>
- Michel, H. and D. Gayton 2002 (Editors). **Linking Indigenous People's Knowledge and Western Science in Natural Resource Management**.
- <http://www.forrex.org/publications/forrexseries/ss4.pdf>
- Pojar, J. and A. MacKinnon. 1994. **Plants of Coastal British Columbia**. Lone Pine Publ., Van., BC.
- **Species Ranking in British Columbia**. B.C. Ministry of Sustainable Resource Management. <http://www.forrex.org/jem/2004/vol5/no1/art6.pdf>
- Ryan, M.W. 2007. **Bryophytes and Lichens of the Victoria Area**. Camosun College Print Shop. 219 p.
- Schofield, W.B. 1992. **Some Common Mosses of British Columbia**. Royal British Columbia Museum. 394 p.
- Schofield, W.B. 1992. **Field Guide to Liverwort Genera of Pacific North America**. University of Washington Press. 228 p.
- Species Ranking in British Columbia. B.C. Ministry of Sustainable Resource Management.
- <http://www.forrex.org/jem/2004/vol5/no1/art6.pdf>

- Vitt, D.H, J. E. Marsh and R.B Bovey. 1998. Mosses **Lichens and Ferns of the Northwest North America**. Lone Press. 296 p.

4. Course Content and Schedule

- Read the textbook: Apostol, D. and M. Sinclair. 2006. Ecological Resoration of Pacific Northwest
- Labs will consist of Identification of Vascular using Douglas, G.W., D.V. Meidinger and J. Pojar (editors). Illustrated Flora of British Columbia, Volumes 1 to 8. Non-Vascular Plant identification will use Ryan's Bryophytes and Lichens of the Victoria Area., Schofield's Some Common Mosses of British Columbia and Field Guide to Liverwort Genera of Pacific North America and Vitt's Mosses Lichens and Ferns of the Northwest North America. [Weeks 9 to 13]
- Students will be introduced to the Flora of North America.
- Vascular and Non-Vascular Plant Taxonomy Lectures [Weeks 1 to 13]
- Field Trips (TBA): Christmas Hill (Saanich), Native Plant Garden (Camosun College), Uplands Park (Oak Bay), Centennial Park (Central Saanich), Government House (Fernwood), Rithet's Bog (Broadmead), Royal Roads – DND property (Collwood), Coburg Peninsula (Esquimalt) and Nature Conservancy of Canada (Maple Bay) [Weeks 1 to 8]
- Student presentations of all the chapters of Apostol, D. and M. Sinclair. 2006. Restoring the Pacific Northwest (20 minute presentation with 20 minutes for discussion). The student presentation will be a summary, background and critique of a chapter using POWERPOINT. The presentation should provide questions and motivation for the ensuing discussion. The discussion will be open to all student, with a participation grade of 10% (see above), and be facilitated by the student presenter. [Weeks 10 to 14].

5. Basis of Student Assessment (Weighting)

- Plant Collection: 20% (due November 20) - (5 herbarium mounted specimens of vascular plants (no grasses), 5 herbarium mounted specimens of grasses only, 8 herbarium samples each of mosses and lichens)
- Lecture Exam: 30% - 3 hours (Exam Period)
Lab Exam: 30% - 4 hours (November 27: plant ID)
- Presentation of a chapter of the text Restoring the Pacific Northwest: 10% (Lecture Period)
Participation in class discussions of student presentations (10%)

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
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	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	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 E-1.5 at camosun.ca 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, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. <i>(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)</i>
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.

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, 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.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED