



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF BIOLOGICAL SCIENCES
COURSE OUTLINE

1. **Course: BIOLOGY 451 - CONSERVATION BIOLOGY**

Lecture Sections: L01 MWF 15:00-15:50 ENE 243 WINTER 2015

Instructor(s): Dr. S.M. Vamosi BI 395 210-8508 smvamosi@ucalgary.ca
 Dr. J.R. Post BI 262 220-6937 jrpost@ucalgary.ca

Desire to Learn course name: BIOL 451 L01 – (Winter 2015) – Conservation Biology
Biological Sciences Department BI 186; (403) 220-3140; biosci@ucalgary.ca

2. **PREREQUISITE(S):** Biology 313

See section 3.5.C in the Faculty of Science section of the online Calendar
(<http://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:

Tutorial reports	15%		
Participation	5 %		
Midterm exam	40%	Wednesday, March 4, 2015 (1800-2000h)	SB 103
Final exam	40%		

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

Each piece of work (Tutorial reports, 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.

Grading Scheme

A+	95
A	86
A-	80
B+	77
B	73
B-	70
C+	67
C	63
C-	60
D+	55
D	50
F	<50%

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:** Dates and times of approved class activities held outside of class hours.

Midterm March 4, 2015 1800-2000h SB 103

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a clash 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:** **Recommended:** Conservation Biology for All (ed. NS Sodhi & PR Ehrlich). Oxford. 2010.
ISBN: 978-0-19-955423; Free: <http://www.conbio.org/publications/free-textbook>

Online Course Components: Students will use **Top Hat** (TH; <https://tophat.com/>) in class to enhance learning in the classroom.

7. **Examination Policy:** No electronic or written aids (eg. cell phones, tablets, computers, PDAs, notes, textbooks) will be allowed during writing of any exams. Non-programmable calculators will be permitted to answer quantitative questions on exams, if applicable, and permission to do this will be clearly indicated on the examination paper. Students should also read the Calendar, [Section G](#), on Examinations.
8. In this course, the quality of the student's writing in tutorial reports will be a factor in the evaluation of those reports to the extent that this affects the clear presentation of ideas. See also [Section E.2](#) of the University Calendar.
9. **Human studies statement:** indicating whether students in the course may be expected to participate as subjects or researchers. See also [Section E.5](#) of the University Calendar.

STUDIES IN THE BIOLOGICAL SCIENCES INVOLVE THE USE OF LIVING AND DEAD ORGANISMS. Students are expected to be familiar with <http://www.ucalgary.ca/pubs/calendar/current/sc-5-1.html> of the on-line calendar.

See also <http://www.ucalgary.ca/pubs/calendar/current/e-5.html>.

10. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **Misconduct:** 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: Students with Disabilities: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html> [B.1](#) and Student Accessibility Services: <http://www.ucalgary.ca/access/>.
- (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 <http://www.ucalgary.ca/secretariat/privacy>.
- (f) **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](#)
- (g) **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.
- (h) **U.S.R.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: _____
b451 co W15; 17/12/2014 9:00 AM

UNIVERSITY OF CALGARY
DEPARTMENT OF BIOLOGICAL SCIENCES
COURSE OUTLINE
BIOLOGY 451
BIOLOGICAL CONSERVATION

TERM: Winter 2015

SECTION NO: L01

PREREQUISITE(S): Biology 313

Students may not register in a course unless they have a grade of at least C- in each prerequisite course.

COURSE COORDINATOR: Dr. S.M. Vamosi

LECTURERS:	Dr. S.M. Vamosi	BI 395	210-8508	smvamosi@ucalgary.ca
	Dr. J.R. Post	BI 262	220-6937	jrpost@ucalgary.ca

LECTURES:	MWF	15:00 – 15:50	ENE 243
-----------	-----	---------------	---------

TUTORIALS:	T	11:00/13:00/15:00	ENA 233
	R	11:00/13:00/15:00	ENA 233/ENA 235/SS 117

TEXT: Conservation Biology for All. NS Sodhi & PR Ehrlich. Oxford. 2010.

MARK DISTRIBUTION: A. Composition of Final Grade

Tutorial reports	15%
Participation	5%
Midterm exam (4 March 2015, 1800-2000h)	40%
Final exam	40%

B. Final Exam

There will be a Final Examination scheduled by the Registrar's Office.

C. Components of course for which a passing grade is essential

Nil

BIOLOGY 451 TENTATIVE LECTURE SCHEDULE WINTER 2015

Note: This schedule is provisional, so some variation in timing & sequence of topics can be anticipated.

Date	Lecture Topic	Lecturer	Tutorial Topic
Jan 12	Introduction	Vamosi/Post	
Jan 14, 16	What is conservation biology?	Vamosi	
Jan 19–23	Biodiversity	Vamosi	T1: Scientists as advocates
Jan 26–30	Ecosystem functions & services	Vamosi	T2: Evolutionary biodiversity
Feb 2–6	Habitat loss & fragmentation	Vamosi	T3: Umbrella & flagship species
Feb 9–13	Conservation genetics	Vamosi	T4: Rewilding
	<i>Reading Week (no lectures)</i>		
Feb 23–27	Urban ecology	Vamosi	T5: Genetics of Florida panthers
Mar 2	Review	Vamosi	
Mar 4, 6	Reintroductions	Moehrenschrager	
Mar 9	Conservation medicine	Moehrenschrager	T6: Assisted Colonization (assignment)
Mar 11	Conservation & poverty alleviation	Moehrenschrager	
Mar 13, 16	Meta-populations & reserve design	Post	
Mar 18–23	Marine conservation	Post	T7: Ocean Biodiversity
Mar 25, 27	Sustainable harvest	Post	
Mar 30, Apr 1	Species-at-risk	Post	T8: Sustainable Food
Apr 3	<i>Good Friday (no lectures)</i>		
Apr 6	Species-at-risk	Post	T9: Species-at-Risk
Apr 8, 10	Climate change	Post	T10: Climate Change
Apr 13, 15	Invasive species	Post	

Reserve Reading List Biology 451 Winter 2015

- Frankham, R., J. D. Ballou, and D. A. Briscoe. 2004. *A Primer of Conservation Genetics*. Cambridge University Press, New York, NY. QH456 .F73
- Groom, M. J., G. K. Meffe, and C. R. Carroll. 2006. *Principles of Conservation Biology*. 3rd Edn. Sinauer Associates, Sunderland, MA. QH75 .M44
- Gutzwiller, K. J., Ed. 2002. *Applying Landscape Ecology in Biological Conservation*. Springer, New York, NY. QH541.15 .L35 A67
- Hanski, I., and M. E. Gilpin. 1996. *Metapopulation Biology: Ecology, Genetics, and Evolution*. Academic Press, San Diego, CA. QH352 .M48
- Helfman, G. S. 2007. *Fish Conservation: A Guide to Understanding and Restoring Global Aquatic Biodiversity and Fishery Resources*. Island Press, Washington, DC. SH327.7 .H46
- Hunter, M. L. 2007. *Fundamentals of Conservation Biology*. 3rd Edn. Blackwell Pub., Malden, MA. QH75 .H84
- International Union for Conservation of Nature and Natural Resources. 2001. *IUCN Red List Categories and Criteria*. Ver. 3.1. Gland, Switzerland. QH75 .I87
- Kinzig, A. P., S. W. Pacala, and D. Tilman (Eds.). 2001. *The Functional Consequences of Biodiversity: Empirical Process and Theoretical Extensions*. Princeton University Press, Princeton, NJ. QH541.15 .B56
- Meffe, G. K., et al. 2002. *Ecosystem Management: Adaptive, Community-Based Conservation*. Island Press, Washington, DC. QH75 .E25627
- Morris, W. F., and D. F. Doak. 2002. *Quantitative Conservation Biology: Theory and Practice of Population Viability Analysis*. Sinauer Associates, Sunderland, MA. QH352.5 .M67
- Primack, R. B. 2010. *Essentials of Conservation Biology*. 5th Edn. Sinauer Associates, Sunderland, MA. QH75 .P752
- Pullin, A. S. 2002. *Conservation Biology*. Cambridge University Press, New York, NY. QH76 .P85
- Schmitz, O. J. 2007. *Ecology and Ecosystem Conservation*. Island Press, Washington, DC. QH541 .S325
- Soulé M. E., and G. H. Orians (Eds.). 2001. *Conservation Biology: Research Priorities for the Next Decade*. Island Press, Washington, DC. QH75 .C672
- Van Dyke, F. 2010. *Conservation Biology: Foundations, Concepts, Applications*. 2nd Edn. Springer, New York, NY. <http://link.springer.com.ezproxy.lib.ucalgary.ca/book/10.1007%2F978-1-4020-6891-1>