

Biology 461h – Evolutionary Ecology (Winter 2008)

Instructor: Dr. Marcel Dorken
 Email: marceldorken@trentu.ca
 Office: DNA B108.10
 Office hours: Wednesday at 9am – 10 am.

Lectures: Mondays 1 - 1:50pm, DNA B105; Tuesdays 10 - 10:50am, GSC 112
 Lab: Thursdays 9 - 11:50am, SC 215

Course Outline: This course will focus on a range of subjects evolutionary ecology. Emphasis will be on (a) understanding key concepts and the critical evaluation of these concepts, and (b) the development of experimental approaches to testing ideas in evolutionary ecology.

Prerequisites: Evolution

Course Schedule:

Week	Lecture themes	Lab	Deadlines
Jan. 7	Introduction to Evolutionary Ecology	Generating research questions	
Jan. 14	Variation and Natural Selection	Designing your experiment	
Jan. 21	Populations and their Genetic Structure	Writing a research proposal	
Jan. 28	Evolution of Sex and Sex Allocation	Setting up your experiment	Research Proposal due at beginning of lab
Feb. 4	Inbreeding and Outbreeding	Student-led presentations	
Feb. 11	Mating Systems	Student-led presentations	
Feb. 18	Reading week – no classes		
Feb. 25	Evolution of Life-cycles and Senescence	Student-led presentations	
Mar. 3	Sexual selection & Sexual Conflict	Student-led presentations	
Mar. 10	Specialists, Generalists & Coevolution	Student-led presentations	
Mar. 17	Limits to Adaptation	Student-led presentation	
Mar. 24	Evolution of reproductive isolation	Tips for writing your research paper	
Mar. 31	Evolutionary responses to anthropogenic changes	No lab	Final Report Due in last lecture

Course Evaluation:

- Research Proposal: 15% (due Jan. 31)
- Research Paper (final lab write-up): 30%, due in last lecture
- Oral presentation: 15% (to be given between weeks Feb. 4th – Mar. 24th)
- Final exam: 40% (TBA)

Assignment deadlines and penalties:

Marks for late assignments will be reduced by 5%, with an additional 5% for each 24-hour period beyond the due date. Late penalties will not apply if an extension has been agreed upon – extensions will only be given under extenuating circumstances).

Recommended text:

Fox, C. W., D. A. Roff and D. J. Fairbairn. 2001. Evolutionary Ecology: Concepts and Case Studies. Oxford University Press, New York.

Academic dishonesty:

Academic dishonesty, including cheating and plagiarism, is an extremely serious academic offense and carries penalties varying from failure of an assignment to suspension from the University. Definitions, penalties, and procedures for dealing with academic dishonesty can be found in the Trent University's Academic Dishonesty Policy in the University Calendar.

Access to Instruction:

If you have a disability and/or health consideration and think that you need accommodations to succeed in this course, please contact the Disability Services Office (BL Suite 109, 748-1281, disabilityservices@trentu.ca) as soon as possible. For more information, consult the Access to Instruction section of the Academic Calendar.