

GRANDE PRAIRIE REGIONAL COLLEGE

SCIENCE AND TECHNOLOGY DEPARTMENT
BIOLOGY INSTRUCTIONAL GROUP

- COURSE:** BIOLOGY 2080 - PRINCIPLES OF ECOLOGY
- PREREQUISITES:** Zoology 1200 or Botany 1990 or Biology 1080.
(NOTE: This course replaces Zoology 2310. Students may not obtain credit for Zoology 2310 and Biology 2080.)
- SECTIONS:** Two sections are offered. One section is offered during Winter Session and a second section is offered in Spring Session. The Winter Session course is offered as a "normal" three hours lecture/three hours lab course. Spring Session tuition fees and additional course fees are charged for the Spring Session field course.
- TRANSFERABILITY:** U of A - Biology 208
U of C - Ecology 313
U of L - Biology 2200
- INSTRUCTORS:** Mr. Terry R. Shewchuk
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- DESCRIPTION:** Ecology is the scientific study of interactions between organisms and their environment in a hierarchy of levels of organization: individuals, populations, communities, and ecosystems. The course is designed to provide a comprehensive survey of ecological concepts that can stand alone or serve as preparation for advanced courses in ecology. Labs and field exercises emphasize the collection, analysis, and interpretation of data from ecological experiments and complement lecture and seminar material. Examples will be drawn from a broad range of organisms and systems.

BIOLOGY 2080 - COURSE SYNOPSIS

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REQUIREMENTS:

(WINTER SESSION)

A. Since presence at lectures and laboratories, participation in classroom discussion and projects, and the completion of assignments are important components of this course, students will serve their interests best by regular attendance. Those who choose not to attend must assume whatever risks are involved. In this connection, the attention of the students is directed to the Academic Guidelines of the College.

B. MidTerm Exam

C. One final Lecture Exam (Scheduled by the Registrar's Office during Term Exam Week)

D. Lab Reports

E. Occasional Lecture and Lab Quizzes and Reports

(SPRING SESSION REQUIREMENTS ARE OUTLINED SEPARATELY)

EVALUATION:

A. Lecture/Lab Quizzes - 10%

B. MidTerm Exam - 30%

C. Lab Reports - 30%

D. Final Lecture Exam - 30%

(SPRING SESSION EVALUATION IS OUTLINED SEPARATELY)

RESOURCES:

Brewer, R. 1994. The Science of Ecology. (2nd ed.) Saunders.

Stiling, P. D. 1992. Introductory Ecology. Prentice-Hall.

Biology 208 - Principles of Ecology, Laboratory Manual. 1995-1996. Department of biological Sciences. University of Alberta.

Biology 2080 Laboratory Schedule - Winter Term

Date	Laboratory

Jan. 10	Introduction
Jan. 17	Field Lab
Jan. 24	Library Research Techniques - Laboratory Assignment Due
Jan. 31	Statistical Analysis of Biological Data - Library Assignment Due - Set up <i>Avena</i> and <i>Bromus</i> experiment - In-lab worksheet
Feb. 7	Sampling and Density Estimation - Set up population growth experiment - Check <i>Avena</i> and <i>Bromus</i> experiment - What is a Research Proposal?
Feb. 14	Life History and Environment - Process <i>Avena</i> and <i>Bromus</i> samples - Sample population growth experiment - Density estimation assignment due
Feb. 21	No formal lab, but... - Sample population growth experiment
Feb. 28	Reading Week - No lab, but... - Population growth experiment will be sampled for you!
Mar. 6	Population Growth of <i>Daphnia</i> - Life History assignment due
Mar. 13	Computer Models of Population Growth - Population Growth assignment due
Mar. 20	Interspecific Competition - In-lab worksheet
Mar. 27	Research Proposal Presentations
Apr. 3	Research Proposals Due