SPRING 2017 - REM 311 D100

APPLIED ECOLOGY AND SUSTAINABLE ENVIRONMENTS (3)

Class Number: 3825 Delivery Method: In Person

COURSE TIMES + LOCATION:

Fr 10:30 AM – 12:20 PM
SSCC 9000, Burnaby

EXAM TIMES + LOCATION:

Apr 21, 2017
12:00 PM – 3:00 PM
Location: TBA

INSTRUCTOR:

Michelle Jones

PREREQUISITES:

REM 100 or EVSC 100; BISC 204 or GEOG 215; STAT 101 or GEOG 251 or STAT 201 or equivalent.

Description

CALENDAR DESCRIPTION:

Students will learn to apply the ecological concepts introduced in prereq courses to applied ecological problems at the population, community, and ecosystem levels of organization. Emphasis will be placed on processes which drive ecological dynamics, on recognizing those processes and dynamics in applied contexts, and on interpreting ecological data. Quantitative.

COURSE DETAILS:

REM 311 includes two hours of lecture and a one-hour tutorial weekly. Tutorials will provide students with applying course concepts using modeling exercises in the software package ECOLAB.
Detailed information for enrolled students will be provided in CANVAS.

COURSE-LEVEL EDUCATIONAL GOALS:

At the completion of this course, students will be able to:

1. Describe processes that govern the dynamics of natural populations,
2. Identify the implications of ecological dynamics for the sustainable use of natural resources,
3. Explain the role of data, variation, uncertainty, risk, assumptions, and quantitative models in science and resource management,
4. Develop process-based, quantitative models of populations and conduct sensitivity analyses,
5. Apply quantitative population models to decision making, such as resources management, species recovery, environmental monitoring, and land-use planning.

Grading

Tutorial Assignments and Participation	20%
In-Class Assignments	20%
Take-Home Assignments	30%

Final Exam 30%

Materials

MATERIALS + SUPPLIES:

All students are expected to bring a **USB drive** to each tutorial. Simple hand-held calculators with no graphing or programming capabilities are also recommended.

REQUIRED READING:

There is no textbook required for this course; however, the course does refer to the following book.
Akcakaya, H.R., Burgman, M.A., and Ginzburg, L. 1999. Applied Population Ecology: Principles and Computer Exercises Using RAMAS EcoLab (2nd Ed.). Sinauer Assoc., 285 pp.

A number of **additional online (electronic) readings** including reports, and journal articles will be made available on CANVAS.

REGISTRAR NOTES:

SFU's Academic Integrity web site http://students.sfu.ca/academicintegrity.html is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

Each student is responsible for his or her conduct as it affects the University community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University. http://www.sfu.ca/policies/gazette/student/s10-01.html

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