EVPP 301
Environmental Science: Biological Diversity and Ecosystems
Lecture Syllabus
Fall 2020

Course Description and Goals: Together with EVPP 210 and 302, this course is part of a three-semester sequence for environmental science majors which provides the basic underpinning for majors courses. Topics include the human dimensions of the environment, biological diversity, vertebrate organ systems, conservation biology, and general ecology.

Course Content and Instructional Methods: The course consists of a coupled lecture and laboratory; both must be taken concurrently and your grade will depend on your performance in both lecture and lab. Below is a list of lecture topics by week. Following the lecture topics there is the lab syllabus.

Topic	Readings
MLK Holiday; Humans and Nature-History;	See Lec Notes: S&S, Ch. 9
Population Dynamics; Environmental Ethics;	See Lec Notes; Leopold (see below)*
Biological Diversity: Bacteria and Archaea; Eukaryotes; Fungi, Protists	Sandava et al.: Ch. 25, 26, 29
Biological Diversity:, Plants I; Review	Sandava et al.: Ch. 27,28, 37
Exam 1; Biological Div.: Plants II: Plant Structure and Function;	Sandava et al.: Ch. 33-35
Biological Diversity: Animal Diversity I, II	Sandava et al.: Ch. 30-31
Biological Diversity: Animal Diversity III, Vertebrate Organ Systems	Sandava et al.: Ch. 32, 46-51
SPRING BREAK	
Toxicology; Conservation Biology	See Lec. Notes; Silent Spring; Sandava et al.: Ch.58; S&S:Ch19, 26
Exam 2; Population Ecology	Sandava et al.: Ch. 54; S&S: Ch.8-9
Population Regulation; Adaptation and Evolution; Life Histories	S&S: Ch. 5, 10, 11; Sadava et al: Ch. 55
Species Interactions and Communities	S&S: Ch. 12-18; Sadava et al.: Ch. 56
Ecosystems; Decomposers and Local Nutrients	S&S: Ch. 20-21; Sadava et al.: Ch. 57
Biogeochemical Cycling; Climate Basics	S&S: Ch. 22, 2
Exam 3; Terrestrial Ecosystems	S&S: Ch. 4,3
Terrestrial Biomes	S&S: Ch. 23, 27

Text: Sadava et al. *Life: The Science of Biology*. 2013. 11th Edition. (also used in EVPP 210 and 302)
S&S: *Elements of Ecology*. T.M. Smith and R.L. Smith. 9th ed. (also used in EVPP 302).
Silent Spring by Rachel Carson. (Bookstore will order, but can get cheap used copies on line.)
Additional reading: *Leopold: http://home.btconnect.com/tipiglen/landethic.html,
Lab Syllabus: The lab syllabus is in the front of the lab manual. Laboratory is a required and integral part of EVPP 301

Lab Manual: Jones, R.C., et al. 2020. EVPP 301: Environmental Science: Biological Diversity and Ecosystems. GMU bookstore.
Loose leaf – 3 hole punched.

Grading:

Lecture:	3 mid term exams (100 pts each)	300 pts	
	Final:	100 pts	
	Total Lecture Points	**400 pts**	
Lab:	10 Lab worksheets, 8 pts. each		80 pts
	Full Lab Report – Daphnia Toxicity		40 pts
	Oral Presentation – Effects of Nutrients on Algal Growth		30 pts
	Total Lab Points		**150 pts**

TOTAL COURSE POINTS: 550 points

Any student missing a graded assignment (including tests) for health reasons or other extenuating circumstances may be required to submit at doctor's statement or other appropriate documentation to avoid a zero for that assignment.

Disability Statement: If you are a student with a disability and you need academic accommodations, please see the instructor and contact the Office of Disability Resources at 703-993-2474. All academic accommodations must be arranged through that office.
Honor Code Statement: George Mason University has an Honor Code, which requires all members of this community to maintain the highest standards of academic honesty and integrity. Cheating, plagiarism, lying, and stealing are prohibited by the code. The instructor will make it clear when working together in lab is acceptable and when independent work is required. If you are uncertain, ask the instructor. It is the responsibility of all members of the community, both students and teachers, to report violations of the code.
Enrollment Statement: Students are responsible for verifying their enrollment in this class. Schedule adjustments must be made by the deadlines posted in the Schedule of Classes.

Lecture Instructor:
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Lab Instructor/TA:
Darby Pochtar

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