

Science and the Human Environment

NSCI 201 - Fall 2017

Time/Location:

Tuesday and Thursday, 4:00 pm – 5:15 pm, Saint Thomas Hall 414

Instructor:

Dr. Robert Smith
Professor of Biology
Loyola Science Center 254
Email: Robert.Smith@scranton.edu

Office Hours:

Monday 11:00 am – 12:00 pm, Tuesday 1:00 – 2:00, Thursday 2:00 pm – 3:00 pm.

Course description:

Science and the Human Environment is a brief study of the effects of the technological, scientific and industrial progress on the air, land and water resources of the human environment. Problems in each of the resource areas will be discussed in detail.

Materials:

Textbook: Miller and Spoolman 2016. Environmental Science, 15th Edition. Cengage Learning, ISBN 978-1305090446.

D2L:

I incorporate D2L as part of my teaching methodology and will make MS Powerpoint presentations, transparency overheads, etc. available to you using this medium. I will also post grades on D2L.

Student Learning Outcomes:

Upon completion of this course, students will/will be able to:

1. Demonstrate an understanding of science and how science is used to understand current environmental problems.
2. Discuss basic evolutionary concepts, including variability, heritability, fitness, natural and sexual selection, evolutionary change, adaptation and speciation.
3. Discuss important ecological concepts and why these concepts are important in light of how humans are influencing the environment.
4. Discuss what biodiversity is, where it comes from and how humans are influencing it.
5. Identify and discuss common and adverse human impacts on biotic communities and suggest sustainable strategies to mitigate these impacts.

Evaluation Methods:

Student outcome will be assessed via performance on three examinations and a comprehensive final exam.

Grading:

Course grades will be determined by performance on the following assignments:

Exams I – III	100 pts. each
Comprehensive Final Exam	100 pts.
TOTAL	400 pts.

Grades will be determined by dividing the total points earned by the total points possible and multiplying by 100. Grade assignments are below:

<u>Percentage</u>	<u>Grade earned</u>	<u>Percentage</u>	<u>Grade earned</u>
94 – 100	A	73 – 76	C
90 – 94	A-	70 – 72	C-
87 – 89	B+	66 – 69	D+
83 – 86	B	60 – 65	D
80 – 82	B-	< 60	F
77 – 79	C+		

Student Responsibilities:

Students are responsible for all information presented in lecture, along with assigned readings and handouts. There is no strict attendance policy – coming to class is up to you. However, I strongly recommend that you attend all classes.

I have no tolerance for cheating. Students are expected to know and follow the University of Scranton policies concerning academic honesty.

Students with Disabilities

Reasonable academic accommodations may be provided to students who submit relevant and current documentation of their disability. Students are encouraged to contact the Center for Teaching and Learning Excellence (CTLE) at disabilityservices@scranton.edu or (570) 941-4038 if they have or

think they may have a disability and wish to determine eligibility for any accommodations. For more information, please visit www.scranton.edu/disabilities.

Environmental Studies Concentration

This course fulfills a natural science requirement for the environmental studies concentration, an 18-credit interdisciplinary program open to students from all majors. The mission of the ESC is to introduce students to a diversity of perspectives on the environment and sustainability. For further information or to apply, please contact the director, Dr. Jessica Nolan at Jessica.nolan@scranton.edu.

Important Dates:

Tuesday, 19 September	Exam #1
Tuesday, 10 October	Fall Break – No class
Thursday, 19 October	Exam #2
Thursday, 16 November	Exam #3
Exam Week	Comprehensive Final Exam

Tentative Lecture Schedule

Week of	Topic	Chapter(s)
21 Aug	Science as a Way of Knowing	Pages 26-29
28 Aug	Environmental Problems	1
4 Sept	Climate and Biodiversity	7 Pages 402 - 424
11 Sept	Ecosystems	3
18 Sept	Biodiversity and Evolution	4
25 Sept	Communities	5
2 Oct	Population Dynamics	6
9 Oct	Human Population, Food Resources	6, 10
16 Oct	Food Resources, Pesticides	10
23 Oct	Water Resources	11
30 Oct	Water Resources, Mineral Resources	11, 12
6 Nov	Mineral Resources, Solid Waste	12,16
13 Nov	Solid Waste, Energy Resources	16, 13
20 Nov	Energy Resources	13
27 Nov	Air Pollution	Pages 383 - 401
Exam Week	Final (Comprehensive) Lecture Exam	