

ECOLOGY 6080 Syllabus - Fall 2009
Principles of Conservation Ecology and Sustainable Development

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Lecture: 8-9:15 AM, Tuesday and Thursday, Ecology Seminar Room
Discussion Section: 10:10 – 11:00 AM Wednesday, Ecology Seminar Room

Text: Principles of Conservation Biology, 3rd edition by Groom, Meffe and Carroll (2006) including the website for the book (www.sinauer.com/groom).

Grading: Midterm is (33.3%), final (33.3%), discussion sessions (33.3%). Exams are comprehensive. The format will be short essay questions and, because the enrollment is diverse, you will have some choice of which questions to answer. You are responsible for ALL lecture and discussion content, text and web site readings, videos and any additional readings assigned for discussion. New material may be added to the syllabus.

Discussion Section: For the discussion section, you will be paired up with at least one other person and assigned to lead the discussion on your assigned date. Discussion leaders will each prepare 2 questions for discussion and give them to Prof Pringle on the Thursday preceding their discussion date. You are responsible for reading the discussion material and actively participating during discussion.

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Date	Lecture/Discussion/Text
Week 1:	
T 18 Aug	Introductions, class format, and questionnaire <u>Lecture</u> : (30 min) <i>What is Conservation Biology?</i> (C* & P**) <u>Reading</u> : Chapter 1
W 19 Aug	Discussion of paper passed out in class on Tuesday
Th 20 Aug	<u>Lecture</u> : Dominant paradigms in conservation (C)

Week 2:

T 25 Aug Lecture: *Global biodiversity: Historical and contemporary patterns* (P)

Reading: Chapter 2

W 26 Aug Discussion Section: Essays 2.1, 2.2, 2.3

Th 27 Aug Lecture: *Threats to freshwater biodiversity: Canaries in the Coal Mine* (P)

Reading: Chapter 3

Week 3:

T 1 Sept Lecture: *Threats to terrestrial biodiversity* (C)

Reading: Chapter 3

W 2 Sept Discussion Section: Case study 3.2, Essays 3.1, 3.2, 3.3

Th 3 Sept Lecture: *Conservation values and ethics* (C)

Reading: Chapter 4

Week 4:

T 8 Sept Lecture: *Economics and conservation* (C)

Reading: Chapter 5

W 9 Sept Discussion Section: Case Study 5.1, Essays 5.2, 5.3

Th 10 Sept Lecture: *Habitat degradation and loss* (C)

Reading: Chapter 6

Week 5

T 15 Sept Lecture: *Habitat fragmentation I: Components of fragmentation, what constitutes a barrier, biological responses and the case of migratory songbirds* (P)

Reading: Chapter 7

W 16 Sept Discussion Section: Case studies 6.2, 7.1, Essay 6.3

Th 17 Sept Lecture: *Habitat fragmentation II: Protecting wildlife and biotic integrity in a fragmented landscape: challenges facing remnant natural areas* (P)

Reading: Chapter 7 (cont.)

Week 6

- T 22 Sept Lecture: *Overexploitation* (C)
Reading: Chapter 8
- W 23 Sept Discussion Section: Case studies 8.1, 8.3
- Th 24 Sept Lecture: *Species Invasions from a terrestrial perspective* (C)
Reading: Chapter 9

Week 7

- T 29 Sept Lecture: *Species invasions from an aquatic perspective:
The case of the Laurentian Great Lakes* (P)
Reading: Chapter 9
- W 30 Oct Discussion Section: Case studies 9.3, 9.4
- Th 1 Oct Lecture: *Conservation genetics* (C)
Reading: Chapter 11

Week 8:

- T 6 Oct Guest Lecturer: Director of UGA Costa Rica Program, Dr Quint
Newcomer (quintn@uga.edu): *UGA Costa Rica: Seeking
sustainability in the cloudforest*
- W 7 Oct Discussion Section: Discussion of paper chosen by students
- Th 8 Oct MIDTERM

Week 9:

- T 13 Oct Lecture: *Species & landscape-level approaches to conservation* (P)
Reading: Chapter 12
- W 14 Oct Discussion Section: Case studies 11.1, 12.4
- Th 15 Oct Guest Lecture: Laurie Fowler (Co-Director River Basin Center):
The Etowah Basin Habitat Conservation Plan
Reading: Chapter 14

Week 10:

T 20 Oct Lecture: *Complex social physical and biological webs: The future of conservation ecology: Coastal ecosystem case study (C)*
Reading: Chapter 13 (cont)

W 21 Oct Discussion Section: Case studies 13.1, 13.4

Th 22 Oct Lecture: *Managing parks and other public lands from an ecosystems perspective (P)*
Reading: Chapter 13 (cont)

Week 11:

T 27 Oct Lecture: *Challenges facing protected areas: Case study – Kruger National Park, South Africa (P)*
Reading: Chapter 15

W 28 Oct Discussion Section: Essay 15.1, Case Study 15.6

Th 29 Oct Lecture: Sustainable development in the age of globalization (P)
Reading: Chapter 16

Week 12:

T 3 Nov Lecture: *Choco Andes Corridor: Sustaining Livelihoods in Ecuador (C)*
Reading: Chapter 16 (cont.)

W 4 Nov Discussion Section: Case studies 16.1, 16.4

Th 5 Nov Lecture: *Sustainable Development in Costa Rica: The case of La Selva Biological Station and the Braulio Carrillo Land Corridor (P)*

Week 13:

T 10 Nov Video: Al Gore's video on climate change: *An inconvenient truth*
Reading: Chapter 10

W 11 Nov Discussion Section: Discuss Gore's video shown on Tuesday

Th 12 Nov Lecture: Climate Change (cont) (C)
Reading: Chapter 10 (cont)

Week 14

Tu 17 Nov Guest Lecture: *Conservation medicine: Disease and wildlife populations*, Dr. Sonia Hernandez-Divers, Assistant Professor, UGA Forest Resources and College of Veterinary Medicine.

W 18 Nov Discussion Section: scientific paper passed out in class

Th 19 Nov Lecture: *Addressing Climate Change: The good, the bad and the ugly* (C)

Week 15

THANKSGIVING HOLIDAY WEEK

T 24 Nov HOLIDAY

W 25 Nov HOLIDAY

Th 26 Nov HOLIDAY

Week 16:

T 1 Dec Lecture: How can we pro-actively manage freshwater ecosystems to accommodate climate change? (P)

Reading: Chapter 17

W 2 Dec Discussion Section: Case studies 17.1, 17.3

Th 3 Dec Lecture: *The challenge of integrating conservation science and policy: Case study from the Caribbean National Forest, Puerto Rico* (P)

Reading: Chapter 17 (cont)

Week 17

T 9 Dec Lecture: (P & C)
LAST DAY OF CLASSES

FINAL EXAM: Friday, 11 December (8-11 AM)
in Ecology Seminar Room or Auditorium