

**The University of Findlay**  
**College of Sciences**  
**Fall Semester 2009**

*The Mission of the University is to equip our students  
for meaningful lives and productive careers.*

<b>Course Number/Title:</b>	BIOL 331: General Ecology
<b>Credit Hours:</b>	4
<b>Class Time/Place:</b>	Lecture: FRST 142; TTh 9:30 - 10:45 a.m. Lab: FRST 221 or RCHS*; Th 11:00 a.m. - 2:00 p.m.
<b>Prerequisites:</b>	BIOL 150/150L, MATH 123, 4 additional hours of biology
<b>Instructor:</b>	Dr. Ben Dolan, Ph.D. 316 Frazer St, C (Nature Center) Ext. 5530, email: <a href="mailto:dolan@findlay.edu">dolan@findlay.edu</a> (write BIOL331 in the subject)
<b>Office Hours:</b>	M 10-12; T 11-12; W 10-11; F 9-10
<b>Course Description:</b>	This course offers a study of the relationships of plants and animals to their environment. Man's influence and dependence on the earth's ecology are also explored. The field and laboratory component emphasizes the use of technology and statistics to analyze ecological data.
<b>Special Services</b>	If you are a student with a disability, it is your responsibility to inform your instructor and register with the Office of Disability Services ( <a href="mailto:ods@findlay.edu">ods@findlay.edu</a> ) at least one week prior to a needed service so reasonable accommodations can be made for you.
<b>Honor Code</b>	<i>I will not knowingly engage in any dishonorable behavior, cheat, steal, lie, or commit any act of plagiarism during any academic work, course, or endeavor. If I observe an act which I believe violates the University's Honor Code, I may, in my discretion, report it to the appropriate personnel.</i>  Academic dishonesty is a serious offense, and penalties for violations of the honor code will be severe. By participating in this course, you are agreeing to comply with the University's Honor Code.

**Course Objectives***Main objectives*

1. Understand the relationship between structure and function within ecosystems,
2. Differentiate between conditions and resources affecting ecosystems,
3. Describe the dynamics of ecosystems at population, community, and ecosystem levels,
4. Recognize the importance of temporal and spatial scale in ecology,
5. Explain how scientific concepts in ecology are applied in conservation biology
6. Observe ecosystems and design research to better understand ecological relationships,
7. Identify plant and animal species using dichotomous keys and field guides,
8. Decipher simple ecological models and apply them to data,
9. Calculate and interpret relevant statistics,
10. Conduct literature reviews and utilize library resources.

*Assessment*

Students will be assessed through a mid-semester exam, a final exam, written lab reports, paper reviews, and attendance. Exams will be cumulative, cover topics from lecture and lab, and will be multiple choice, true/false, matching, and short answer. Exams will be taken in class.

**Required Textbook**

*Essentials of Ecology, 3<sup>rd</sup> edition*  
Townsend, Begon, & Harper, 2008

**Other Materials**

Field Notebook. (Recommended: Rite-in-the-Rain Notebook No. 373)

**Grading**

Lab Reports (5 @ 50 pts each)	250 points
Field Trip	50 points
Article Reviews (5 @ 20 pts each)	100 points
Mid-term exam	100 points
Cumulative final exam	150 points
<b>Total</b>	<b>650 points</b>

**Grading Scale/Distribution**

	A 100-93	A- 92-90
B+ 89-87	B 86-83	B- 82-80
C+ 79-77	C 76-73	C- 72-70
D+ 69-67	D 66-63	D- 62-60
	F < 60	

**Final Exam**

Thursday, December 10, 12:00-1:50 p.m.

## **Field Trip**

There will be a required, one-day field trip, in addition to the regularly scheduled labs. The trip will be on a Saturday. Students who cannot attend the trip will be required to complete an alternate assignment. The instructor will provide more information as the date of the trip approaches.

## **Course Policies and Practices**

\*Class meetings will alternate between campus and the Reick Center for Habitat Studies (RCHS). On several Thursdays, lecture and lab will meet at RCHS at 9:45 a.m. The weeks we'll meet at RCHS are indicated on the course schedule. It is the student's responsibility for checking the course schedule, arranging transportation, and arriving on time.

Attendance is expected for lecture and required for lab. All missed material must be obtained from classmates.

Students have 2 DOG days to turn in late assignments with no penalty. All other late assignments will receive a ten percent deduction for each late day.

Make-up tests for excused absences will be addressed on an individual basis. Students must schedule a make-up exam with the instructor prior to a known absence or within 1 day following an unexpected absence.

Lab is an essential component to this course, and no make-up assignments will be given for missed labs. Most labs last 2 weeks, and twenty-five percent (12.5 points) will be deducted from your lab report for each unexcused absence from lab.

Labs will be indoors and outdoors. Students will need to dress appropriately for outdoor labs. Recommended clothes include long pants, long-sleeved shirts, and boots. Insect repellent and Tecnu are also advised. Be prepared for all weather conditions.

Student emails will be read and addressed during office hours. Write BIOL331 in the subject of your email.

Grades will not be posted on Blackboard. Please keep track of your own grades. There is space on this syllabus to record your grades.

Be respectful of your fellow classmates.

Cell phone use, including texting, during class is rude and strongly discouraged. If you are anticipating an important call, please leave the room politely when your phone vibrates.

Using a cell phone or any other device during an exam will be regarded as an attempt to cheat and a violation of the honor code.

You may bring lunch and snacks to RCHS. We will take a break between lecture and lab activities.

**Instructional Strategies**

Case Analysis		Library and Internet Research	x
Debate		Practice/drill	
Discovery/Independent Research	x	Problem solving	x
Discussion/Questioning/ Interviewing	x	Reading assignments	x
Experiential Learning	x	Role playing/simulation games	
Field Experience	x	Service Learning	
Group Presentation		Video/Audio Review and Critique	
Laboratory Experiences	x	Other	
Lecture	x		

**Methods of Assessment**

Abstracts		Participation	
Attendance	x	Peer Evaluation	
Capstone Project		Portfolio	
Case Study		Portfolio Lab Performance	
Exams	x	Presentations	
Group Projects	x	Professional Evaluation	
Homework Assignments		Quizzes	
Internet Research		Research project	
Journaling		Other	x
Lab Performance	x		
Oral/written review of literature	x		

**Grade Record**

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Available</b>
<b>Lab 1</b>		50
<b>Lab 2</b>		50
<b>Lab 3</b>		50
<b>Lab 4</b>		50
<b>Lab 5</b>		50
<b>Article 1</b>		20
<b>Article 2</b>		20
<b>Article 3</b>		20
<b>Article 4</b>		20
<b>Article 5</b>		20
<b>Field Trip</b>		50
<b>Midterm</b>		100
<b>Final</b>		150
<b>Total</b>		<b>650</b>

# General Ecology

## Lecture and Lab Schedule

(Subject to Change)

	<b>Week of</b>	<b>Lecture Topics</b>	<b>Lab Topic</b>	<b>Chapters</b>	<b>Paper**</b>
Introduction	24-Aug	Introduction to Ecology	Crosstown Walk <i>UF</i>	1	
	31-Aug	Ecology's Evolutionary Backdrop	Habitat Differences <i>RCHS</i>	2	
Conditions & Resources	7-Sept	Physical Conditions	Habitat Differences* <i>UF</i>	3	(Edge effects)
	14-Sept	World Communities	Habitat Mapping (GPS) <i>RCHS</i>	4	
Individuals, Populations, Communities, & Ecosystems	21-Sept	Life History	Habitat Mapping (GIS)* <i>UF</i>	5	
	28-Sept	Interspecific Competition	EAB Survey <i>UF</i>	6	(EAB)
	5-Oct	Predation, Grazing, and Disease	<b>No lab—Fall Break</b>	7	
	12-Oct	Evolutionary Ecology <b>Midterm Exam</b>	Field Trip (Sat)	8	
	19-Oct	Populations & Communities	Populations* <i>RCHS</i>	9	(Biodiversity)
	26-Oct	Patterns in Species Richness	Forest Succession <i>RCHS</i>	10	
	2-Nov	Landscape Ecology	Forest Succession* <i>UF</i>	TBA	
	9-Nov	Ecosystem Ecology	Soil Field Work <i>RCHS</i>	11	(Soil Science)
Applied Issues	16-Nov	Sustainability	Soil Lab Work* <i>RCHS</i>	12	
	23-Nov	Habitat Degradation	<b>No lab--Thanksgiving</b>	13	
	30-Nov	Conservation	Ecological Modelling <i>UF</i>	14	(Restoration)
	10-Dec	<b>Final Exam:</b> Thurs, Dec 10, 12:00-1:50			

\*Lab report due the following week.

\*\*Be prepared to discuss the article and turn in notes on Tuesday of the week listed.