

The University of Findlay
College of Sciences
Fall Semester 2XXX

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

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| Course Number/Title: | BIOL 150: Biodiversity, Form, and Function |
| Credit Hours: | 3 |
| Class Time/Place: | Section 150.03 – GFAP 103: MWF 12 – 1250 Section 150.51 – BCHS 100: W 630 – 915 |
| Co-requisites: | BIOL 150: Biodiversity, Form and Function |
| Instructor: | |
| Office Hours: | Monday: 10 – 12* Tuesday: 2 – 3 Thursday: 10 – 11 Friday: 11 – 12 *Other hours by appointment. |
| Course Description: | This is an introductory course and the first course in the biological sciences for biology majors. It examines the variety of populations, species, and natural communities known as biological diversity. It surveys the five kingdoms (bacteria-like life forms, protozoan life forms, fungi life forms, plants, and animals) and three domains of life on the planet. The relationship of global systems as they pertain to the healthy function of the biosphere is explored. Major biological concepts are presented. |
| Special Services: | If you are a student with a disability, it is your responsibility to inform your instructor and register with the Office of Disability Services (ods@findlay.edu) at least one week prior to a needed service so reasonable accommodations can be made for you. |
| Honor Code: | <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,</i> |

in my discretion, report it to the appropriate personnel.

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:

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

1. Recognize the complexity of biodiversity and be able to explain phylogenetic relationships of species.
2. Understand the relationship between biological structure and function at all levels of biological integration.
3. Demonstrate the use of the scientific method in discovering biological concepts.

Assessment

Students will be assessed through weekly quizzes, two mid-semester exams, and one cumulative final exam. Quizzes will be administered in class and will be multiple-choice. Exams will cover topics and concepts covered in lecture and lab, and will be multiple choice, true/false, matching, and short answer. Exams will be taken in-class.

Required Textbook:

Campbell, N.A. and Reece J.B. 2008. Biology. 8th ed. Pearson / Benjamin Cummings Publishers, San Francisco, CA.

Other required materials:

Turning Point Clicker available at the UF Bookstore.

Grading:

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|------------------------------|-------------------|
| Quizzes: 10 – 10 points each | 100 points |
| Exams: 2 – 100 points each | 200 points |
| Cumulative Final Exam | 150 points |
| Total | 450 points |

Grading Scale/Distribution:

| | | |
|-------------|-----------|------------|
| A+ 100 – 99 | A 98 – 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:

Section 03: Wednesday, December 09 from 1200 – 150
Section 51: Wednesday, December 09 from 630 – 915

Course Policies and Practices:

Attendance is required. Absences are excused when a qualifying note is presented to the instructor prior to a known future absence or at the beginning of the first lecture following an unexpected absence. Attendance will be tracked using clickers. You must bring your clicker to class every day. Your attendance will not be recorded and you cannot take quizzes or exams without your clicker.

Make-up tests and quizzes for excused absences will be addressed on an individual basis. Students must schedule a make-up date with the instructor prior to a known absence or within one day following an unexpected absence. No make-up work will be allowed for unexcused absences.

Exams and quizzes will be administered in class and will consist of multiple-choice questions. You will submit your quizzes using Turning Point. In addition, you will be permitted to drop the two lowest quiz scores.

Grades will not be posted on Blackboard. Please keep track of your own grades.

Student emails will be read and addressed during office hours. Please write BIOL150.03 or BIOL 150.51 in the subject.

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.

Instructional Strategies

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| Case Analysis | | Library and Internet Research | |
| Debate | | Practice/drill | |
| Discovery/Independent Research | | Problem solving | x |

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|---|---|---------------------------------|---|
| Discussion/Questioning/ Interviewing | | Reading assignments | x |
| Experiential Learning | | Role playing/simulation games | |
| Field Experience | | Service Learning | |
| Group Presentation | | Video/Audio Review and Critique | |
| Laboratory Experiences | | Other | |
| Lecture | x | | |

Methods of Assessment

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

Biodiversity, Form, and Function

Fall 2XXX: Lecture and Lab Schedules*

*subject to change

| Week of* | Lecture Topics | Lab Topic | Chapters |
|-------------------------------|--|----------------------------------|-----------------|
| 24-Aug | Introduction Descent with Modification | Scientific Inquiry | 1, 22 |
| 31-Aug | Evolution | Microscopy | 23 |
| 07-Sep | Origin of Species History of Life on Earth | Natural Selection | 24, 25 |
| 14-Sep | Phylogeny Lecture Exam I | Phylogenetic Systematics | 26 |
| 21-Sep | Bacteria and Archaea Meiosis and Mitosis | Prokaryote Diversity | 27 |
| 28-Sep | Protists Fungi | Protists and Fungi Diversity | 28, 31 |
| 05-Oct | Origin of Plants | No Lab | 29 |
| Fall Break | Bryophytes and Ferns | | |
| 12-Oct | Plants: Gymnosperms and Angiosperms | Plant Diversity | 30 |
| 19-Oct | Plant Anatomy and Physiology Lecture Exam II | Plant Anatomy | 35, 36 |
| 26-Oct | Introduction to Animals Animal Diversity | Animal Diversity I: Nonchordates | 32, 33 |
| 02-Nov | Animal Diversity (cont.) Nutrition | Animal Diversity II: Chordates | 34, 41 |
| 09-Nov | Excretion Circulation and Gas Exchange | Vertebrate Anatomy I | 44, 42 |
| 16-Nov | Immune System Reproduction | Vertebrate Anatomy II | 43, 46 |
| 23-Nov | Nervous System | No Lab | 49 |
| Thanksgiving Break | | | |
| 30-Nov | Nervous System (cont.) Ecology | Ecology | 52, 55 |
| 07-Dec | Cumulative Final Exam | | |

*Dates for lecture topics and lecture exams are approximate.