

FAYETTEVILLE STATE UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF BIOLOGICAL SCIENCES
Zoology 110, General Zoology
Fall Semester, 2010

I. LOCATOR INFORMATION

Instructor: Dawn McGee

Course # and Name: General Zoology 110 Office Location: Lyons Sci.124A

Semester Credit Hours: Four (4)

Office Hours: Mon: 9-11am

Tues: 9-12pm&2-4pm

Wed/Fri: 10:15-11am

Office Phone: 672 - 1579

Day and Time Class Meets:

Zool 110-01 WF Rm 247; 9-10:15

Lab Mon.2-3:50

Rm 245 Lyons Science Annex

Zool 110-02 MW Rm 127; 11-12:15

Lab Fri. 11-12:50

Rm 245 Lyons Science Annex

Zool 110-03 WF Rm 127; 2-3:15

Lab Tues. 12-1:50

Rm 245 Lyons Science Annex

Total Contact Hours for Class: 4hours 20min weekly

Email: dmcgee@uncfsu.edu

FSU Policy on Electronic Mail: Fayetteville State University provides to each student, free of charge, an electronic mail account that is easily accessible via the Internet. The university has established email as the primary mode of communicating with enrolled students about impending deadlines, upcoming events, & other information important to student progression at the university. Students are responsible for reading their email on a regular basis to remain aware of important information disseminated by the university. The university maintains open-use computer laboratories throughout the campus that can be used to access electronic mail. Students making inquiries via email to FSU faculty and staff about academic records, grades, bills, financial aid, and other matters of a confidential nature are required to use their FSU email account. Rules & regulations governing the use of FSU email may be found at:

<http://www.uncfsu.edu/PDFs/EmailPolicyFinal.pdf>

II. COURSE DESCRIPTION

A study of animal biology relative to structure, function, ecology, heredity, and embryogenesis, with emphasis on the evolution and characteristics of major animal phyla, and with two (2) hours of laboratory studies relative to basic concepts of animal biology.

III. DISABLED STUDENT SERVICES

In accordance with Section 504 of the 1973 Rehabilitation Act and Americans with Disabilities Act (ACA) OF 1990, if you have a disability or think you have a disability to please contact the Center for Personal Development in the Spaulding Building, Room 155 (1st Floor); 910-672-1203.

IV. TEXTBOOK

“Integrated Principles of Zoology 14th Edition” by Cleveland P. Hickman Jr., Larry S. Roberts, Susan L. Keen, Allan Larson, Helen I’Anson, David Eisenhour, 2006 McGraw Hill Publishing Co., New York. Laboratory Manual: “Laboratory Studies in Integrated Principles of Zoology 14th Edition” by Cleveland P. Hickman, Jr., Lee B. Kats, and Susan L. Keen, McGraw Hill Publishers, New York.

V. STUDENT LEARNING OUTCOMES

This course is designed to impart general concepts of Zoology and to aid in the transference of the principles and concepts of the biological systems to the general systems of animals. One is to study and understand the major animal phyla, and how they function, live, reproduce, and interact with the environment.

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

1. Know the five grades of organization.
2. Know and understand the concept of the individual

3. Know the general patterns of development
 - a. fertilization
 - b. cleavages and blastulation
 - c. differentiation
 - d. growth
4. Know the types of eggs
5. Know and understand the types of cleavages
6. Know and understand the formation of the coelom
 - a. schizocoelom
 - b. enterocoelom
7. Know the system of classification
8. Know the (5) major tissues, the specific types, representatives of each type, and their location and function in the body
9. Study and know the animal body plan
 - a. symmetry
 - b. cavity
 - c. metamerism
 - d. cephalization
10. Know and distinguish homology and analogy
11. Know what species concept means
12. Define the following:
 - a. lower and higher
 - b. primitive and advanced
 - c. ontogeny and phylogeny
13. Know the five kingdoms of life
14. Know the basic distinction between protostomes and deuterostomes
15. Know the concept of organic human evolution
16. Know what the biosphere consist of and how animals are distributed
17. Know the principles of animal ecology
18. Know 15 phyla of animals studied, give a representative of each phylum, and the characteristics of each phylum

VI. Course Requirements and Evaluation Criteria

Final grades are calculated on a four-point system and affect a student's grade point average as indicated below.

Grade	Credit Hours	Quality Points	Meaning
A	Hours attempted and earned	4 per credit hour;	Exceptionally high
B	Hours attempted and earned	3 per credit hour	Good
C	Hours attempted and earned	2 per credit hour	Satisfactory
D	Hours attempted and earned	1 per credit hour	Marginally passing
F	Hours attempted – Not earned	0 per credit hour	Failing
FN	Hours attempted – Not earned	0 per credit hour	Failing due to non-attendance. (Student registered, but <u>never</u> attended.)
W	Hours attempted – Not earned	No impact on GPA	Class withdrawal prior to deadline (see Academic Calendar)
P	Hours attempted and earned	No impact on GPA	Satisfactory - Assigned only in classes specified as Pass/Fail
WU	Hours attempted – Not earned	No impact on GPA	Withdrawal from all classes for semester or term

AU	Hours attempted – Not earned	No impact on GPA	Auditing
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Students must drop or withdraw* from classes according to the deadlines published in the catalog. *See warning below about class withdrawals.

NEW TYPE OF GRADE: INTERIM GRADES – (New name for “midterm grade, with additional purposes). Used for informational and warning purposes only; are not part of student’s permanent transcript and have no effect on student’s GPA.

- Assign interim grades, A – F, after midterm, to all students to inform them of their academic status as of midterm.
 - Assign grades of “X” and “EA” as indicated below.
- **X = NO SHOW** – Assigned to students who are on a class roster, but never attend class. For warning purposes only; NOT a final grade.
- **EA = EXCESSIVE ABSENCES** - Assigned to students whose class absences exceed 10% of the total contact hours. For warning purposes only, NOT a final grade.

FACULTY: Assign grade of EA to students whose absences exceed 10% of class contact hours. Assign the grade as soon as warranted by student attendance. Otherwise, student will not have time to take corrective action.

NEW FINAL GRADE:

- **FN = FAILURE DUE TO NON-ATTENDANCE** – Final grade for students who are on class roster, but never attend the class. An FN grades is equivalent to an F grade in the calculation of the GPA.
- Students receive no refund for withdrawing from individual classes and they slow their progress toward degree completion.
- Students who withdraw from or fail more than one-third of their classes will no longer be eligible for financial aid.
- **STUDENTS MUST STRIVE TO EARN CREDIT FOR ALL THE CLASSES IN WHICH THEY ENROLL. STUDENTS SHOULD WITHDRAW FROM CLASSES ONLY WHEN IT IS ABSOLUTELY NECESSARY.**

Grading Criteria

Laboratory Practicals	3	x	100	=	300 points
Lecture Test	3	x	100	=	300 points
Laboratory Exercises	10	x	15	=	150 points *
Quizzes – Average of ALL				=	50 points *
Final Exam				=	200 points

TOTAL POINTS = 1,000 POINTS*

*Points may vary due to the total number of items completed.

The test may have some or all of the evaluation components as follows:

1. Essay questions
2. Multiple choice questions
3. Interpretive items
4. Reading passages
5. Matching items
6. Diagrams for labeling

92 and above	A
83 -	B
73 -	C

64	-	D
63	-	F

**NO CELL PHONES ARE ALLOWED IN CLASS (use a watch for time management)
DURING TESTING NO PERSONAL ELECTRONIC DEVICES WITH INTERNET CAPABILITY OF
ANY KIND WILL BE ALLOWED IN THE ROOM W/ STUDENTS**

FSU Policy on Disruptive Behavior in the Classroom

The *Code of the University of North Carolina* (of which FSU is a constituent institution) and the *FSU Code of Student Conduct* affirm that all students have the right to receive instruction without interference from other students who disrupt classes.

FSU Core Curriculum Learning Outcome under Ethics and Civic Engagement (6.03): All students will “prepare themselves for responsible citizenship by fulfilling roles and responsibilities associated with membership in various organizations.” Each classroom is a mini-community. Students learn and demonstrate responsible citizenship by abiding by the rules of classroom behavior and respecting the rights all members of the class.

The FSU Policy on Disruptive Behavior (see FSU website for complete policy) identifies the following behaviors as disruptive:

1. Failure to respect the rights of other students to express their viewpoints by behaviors such as repeatedly interrupting others while they speak, using profanity and/or disrespectful names or labels for others, ridiculing others for their viewpoints, and other similar behaviors;
2. Excessive talking to other students while the faculty member or other students are presenting information or expressing their viewpoints.
3. Use of cell phones and other electronic devices
4. Overt inattentiveness (sleeping, reading newspapers)
5. Eating in class (except as permitted by the faculty member)
6. Threats or statements that jeopardize the safety of the student and others
7. Failure to follow reasonable requests of faculty members
8. Entering class late or leaving class early on regular basis
9. Others as specified by the instructor.

The instructor may take the following actions in response to disruptive behavior. Students should recognize that refusing to comply with reasonable requests from the faculty member is another incidence of disruptive behavior.

1. Direct student to cease disruptive behavior.
2. Direct student to change seating locations.
3. Require student to have individual conference with faculty member. At his meeting the faculty member will explain the consequences of continued disruptive behavior.
4. Dismiss class for the remainder of the period. (Must be reported to department chair.)
5. Lower the student’s final exam by a maximum of one-letter grade.
6. File a complaint with the Dean of Students for more severe disciplinary action.

Students who believe the faculty member has unfairly applied the policy to them may make an appeal with the faculty member’s department chair.

VII. Academic Support Resources

SI – Student Instructional leaders will be utilized in this class and all student are encouraged to attend these sessions.

VIII. Course Outline and Assignment Schedule

WEEK	LESSON	TOPIC	CHAPTER
1	1	Architectural Pattern of an Animal Pages 184 -198	9
2	2	Taxonomy & Phylogeny of Animals Pages 199 - 216	10
3	3	Protozoan Groups Pages 217 - 245	11
4	4	Sponges and Placazoans Pages 246 - 259	12
5		TEST #1	
6	5	Radiate Animals Pages 260 - 288	13
7	6	Flatworms, Mesozoans, & Ribbon Pages 289 - 311	14
8	7	Gnathiferans & Smaller Pages 312 - 330	15
9		TEST #2	
10	8	Molluscs Pages 331 - 361	16
11	9	Annelids and Allied Taxa Pages 362 - 383	17
12	10	Smaller Ecdysozoans Pages 384 - 401	18
13	11	Trilobites, Chelicerates, & Myriapods Pages 402 - 419	19
14	12	Crustaceans Pages 420 - 440	20
15		Test # 3	
16	13	Hexapods Pages 441 - 468	21
17	14	Chaetognaths, Echinoderms and Hemichordates, Pages 469 - 495	22
18	15	Chordates Pages 496 – 513	23

FINAL EXAM SCHEDULE COMPREHENSIVE

Zoology 110 -01	Wednesday	December 8, 2010	8:00am-9:50am
Zoology 110-02	Monday	December 6, 2010	10:00am-11:50am
Zoology 110- 03	Monday	December 6, 2010	2:00pm-3:50pm

WEEKLY	LABORATORY EXERCISES	PAGE	DATE
1	The Microscope	3 – 14	M=8/23, T=8/24, F=8/27
1	Cell Structure and Division	15 – 25	M=8/23, T=8/24, F=8/27
2	Gametogenesis and Embryology-3B	37 – 44	M=8/30, T=8/31, F=9/3
3	Tissue Structure and Function	49 – 66	M=H, T=9/7, F=9/10
4	Introduction to Animal Classification	67 – 78	M=9/13, T=9/14, F=9/17
5	Protozoan Groups TBA	81 – 112	M=9/ 20, T=9/21, F=9/24
6	The Sponges	113– 120	M=9/27, T=9/28, F=10/1
7	The Radiate Animals	121– 138	M=10/4, T=10/5, F=10/8
8	The Flatworms -Platyhelminthes	139– 158	M=10/11, T=12, F=FB
9	Five Small Protostome Phyla	159 – 170	M=FB, T=10/19, F=10/22
10	The Molluscs	171 – 188	M=10/25, T=10/26, F=10/29
11	The Annelids	189 – 204	M=11/1, T=11/2, F=11/5
12	The Chelicerate Arthropods	205 – 210	M=11/8, T=11/9, F=11/12
12	The Crustacean Arthropods	211 – 222	M=11/8, T=11/9, F=11/12
13	The Arthropods: Myriapods and Hexapods	223– 245	M=11/15, T=11/16, F=11/19
14	The Echinoderms	247–263	M=11/15, T=11/16, F=11/19
15	Phylum Chordata: A Deuterostome Group	265– 273	M=11/22, T=11/23, F=H
16	The Fishes – Lampreys, Sharks, and Bony Fishes	275– 296	M=11/29, T=11/30, F=12/3

IX. TEACHING STRATEGIES

ZOOLOGY 110 is a lecture based course designed to examine the animal kingdom phylogenetically. The laboratory component provides hands-on dissection and examination of most of the organisms discussed in the lecture. Each lecture gives the position of the animal group discussed, their evolution/phylogeny, the major characteristics of the group, interaction with man, and ecology. Visual aids such as interactive computer CD-ROM animations, transparencies, charts, models, etc. will be used to enhance and clarify concepts, structures and relationships. In order to provide active learning and involvement of the students, questions will be posed to the class prior, during, and after new topics have been introduced. Students will be required to do internet research on

each major phylum presented and make oral presentations. These activities allow active participation in the learning process.

X. BIBLIOGRAPHY

1. Evolutionary Relationships Among Protozoa by G.H. Coombs, 1998.
2. The Structure of Nematode by Alan F. Bird and J. Bird.
3. Before the Backbone: Views on the Origin of the Vertebrates by H. Gee, 1996.
4. The Biology of Arthropoda by K.U. Clarke.
5. Textural Observations on Some Living Species of Planktonic Foraminifera by R. Cifelli, 1982.
6. The Invertebrates by L. Hyman, 1942 Vol. I; Protozoa through Ctenophora
Vol. II; Platyhelminthes and Phynochocoela Vol. III; Aschelminthes and Entoprocta
Vol. IV Echinodermata
7. An Introduction to the Behavior of Invertebrates by L.D. Carthy.
8. A Manual of the Common Invertebrate Animals by Pratt, 1983.
9. Fresh Water Biology by Ward and Whipple, 1981