BIOL 1110, "Biological Diversity"

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Course Description:

This course is an introductory foundation-building course for biology majors. It is designed to familiarize students with the distinguishing characteristics, taxonomy, evolutionary relationships, and economic importance of all domains of life.

Learning Outcomes

Upon completion of this course you should be able to:

- Describe how prokaryotic cells differ from eukaryotic cells.
- Identify the taxonomic classification (domain, kingdom, phylum, class) of living things.
- Distinguish between taxonomy and phylogeny.
- Compare and contrast prokaryotes, protists, plants, fungi, and animals with respect to their structure, metabolic strategies, reproductive strategies, evolutionary history, and importance in the ecosystem.

Meeting Times and Locations:

	Lecture	**Labs** (check your course schedule for your assigned lab time)
Day/Time	T 15:35-16:25 and R 15:35-16:25	T 09:00-10:50, 11:00-12:50 W 10:00-11:50, 12:00-13:50 R 09:00-10:50
Location	Biology 151	Biology 118

Texts and Materials (Lecture)

Required:

- *Life: The Science of Biology*, 10th edition (Sadava, Hillis, Heller, and Berenbaum)
- iClicker II response pad

Recommended:

- *Study Guide* to accompany *Life: The Science of Biology* (W.H. Freeman and Company)
- *Dictionary of Word Roots and Combining Forms* (Borror)

Texts and Materials (Lab)

Required:

- *Biology 1110 Laboratory Manual*, 2nd edition (Hendricks, Morgan, and Pencoe)
- *Van De Graaff's Photographic Atlas for the Biology Laboratory*, 7th edition (Adams and Crawley)
- iClicker II response pad - use the same clicker for both lab and lecture

Student Responsibilities:
Consistent execution of certain activities will allow you to reach your maximum understanding of the material presented in this course, and provide you with the foundational knowledge you will need for future biology courses:

- Ask questions! Science is foremost an exercise in the disciplined investigation of curiosity.
- Attend all lectures and lab sessions and be on time.
    - If you arrive more than 15 minutes late to lecture, you may be asked to leave to avoid disrupting the class.
    - If an emergency arises and you can't make your scheduled lab for a particular week, you may attend one of the remaining labs for that week. The nature of the emergency must be communicated to both me and your lab TA, and the appropriate form should be submitted at the time of the make-up. **Only one absence from lab will be excused over the course of the semester.**
- Come to class prepared – complete all pre-readings, bring all necessary class materials (iClicker, notebook, pencils, laptop, etc.)
    - Being prepared also means being prepared to learn! I expect that you are attending lecture because you wish to learn the material being covered. Any activity that is not learning-oriented (*e.g.* texting, surfing the web, side conversations, etc.) is disrespectful to both myself and your classmates, and is unacceptable during class time. **If you choose to engage in any activity during lecture other than being an engaged member of this course, you may be asked to leave.**
- For each hour of class time, it will be necessary to put in ***at least*** 2 hours of studying outside of class. This equates to a ***minimum*** **of 7 hours each week outside of class** that you should be investing in this course; schedule accordingly. Note that the study time needed to understand the material is highly variable from person to person. If you find that it takes you more effort to understand the material, put in the time required for YOU, and don't worry about how long it "should" take.
- The default location for announcements containing important information regarding lecture and/or lab will be the CourseDen page for this course. Thus, it is your responsibility to check CourseDen (https://westga.view.usg.edu) for messages regularly (at least once per day).
- University of West Georgia students are provided a MyUWG e-mail account. The University considers this account to be an official means of communication between the University and the student. It is the student's responsibility to check his or her email regularly. Any emails initiated by the student should originate from his/her UWG email account.
- Be aware of your progress – regularly review material that has been covered to make sure you are retaining it, and check your marks on CourseDen. Note that grades are based on proof that you have acquired and know how to apply a certain body of knowledge in testing situations, not on attendance or how hard you have worked. The earlier you determine you are having a problem or don't understand something, the more time you will have to correct the issue, master the material, and achieve the goals you have set for yourself.

Extra-credit homework:
Each week, a homework assignment will be posted on CourseDen. These assignments are entirely optional. Completion and submission of this assignment by the stated due date will allow you to reinforce the concepts discussed in lecture and also earn additional points over the course of the term. Reviewing graded homework is also an excellent way to study for exams!

Exams:
You will need a large pink scantron (Form 229633) for all exams.
You must bring a picture ID for all lecture exams & the final.
Lecture exams will be taken during class on the listed dates. The format of all lecture exams is multiple choice. A few things to remember when taking this type of exam are:

- Don't rush! There is ample time allowed for careful consideration of each question
- Read each question and all possible answers before making your selection
- Use the process of elimination to help narrow down your answer
- Answer all questions! There is no penalty for guessing.
- Make sure you have selected your intended answer properly (if you know the answer is "A", make sure you select the letter "A")
- Double-check your answers before submitting your exam

Laboratory exams are in the form of practicals, and are held at your usual lab time and location.

Makeup exams will not be given except in cases of documentable emergency. If you miss a scheduled exam due to an emergency, you must contact me within **24 hours** via office phone or email, **AND** the missed exam must be taken within **72 hours**. Failure to contact me within 24 hours of missing the first lecture exam will result in your being dropped from the course.

Grading:
I will not discuss course grades over email.

Lecture	60% of final grade	Lecture exams (3)	33%
		Comprehensive final exam	15%
		Clicker questions*	12%
Laboratory	40% of final grade	Practical exams (2)	24%
		Clicker quizzes*	10%
		Prelab/postlab assignments*	6%
Homework	up to +5% extra credit		

*At the end of the semester, your lowest score in each of these categories (excluding exams) will be dropped

You can calculate your current grade using the following formulas:

Lecture = (Lecture exam avg. x 0.33) + (Final exam x 0.15) + (Clicker avg. x 0.12)
Lab = (Practical exam avg. x 0.24) + (Clicker avg. x 0.1) + (Lab assignment avg. x 0.05)
Course = [(Lecture + Lab)/(Total % possible)*100] + (Homework avg. x 0.05)

Your final letter grade will be determined by your calculated numeric grade, rounded to the nearest integer following standard rounding rules, as per the following table, no exceptions.

A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 - 69
F = 59 & below

Academic Dishonesty:

Any student who provides information to or receives information from another student that is used on clicker quizzes, lab practicals, or lecture exams will receive a grade of "F" for BIOL 1110.
This also applies to individuals witnessing, but not reporting, such an exchange.
Information regarding **UWG's Honor Code**, **Credit Hour Policy**, and **ADA Accessibility** can be found at http://www.westga.edu/UWGSyllabusPolicies/

Support Services:

If you need help mastering the course material in addition to attending lectures, labs, and engaging in individual study, there are many opportunities for support. Here are some that are available on campus:

Dr. Genz's Office Hours: (204 Biology Building)

M	13:00-15:00
T	16:30-18:30
W	11:00-13:00
R	11:00-15:00

Supplemental Instruction:

SI is an open study group that meets to review and develop a better understanding of the course material. These interactive sessions include working with peers to compare notes, discuss pertinent problems and difficult concepts, and develop learning/study strategies. Students are asked to arrive with their lecture notes and questions to these informal, peer-led study sessions.
The SI leader who prepares each session took this class before and did well. The SI leader attends each lecture, and holds sessions outside of class every week at the following times:

Day	Time	Location
TBA	TBA	TBA

SI Leader: Andrew Sennett
Email: asennet1@my.westga.edu

Biology tutoring center: Biology 262

Free tutoring by upperclassmen biology majors is available for this course.

Day	Time
M,W	08:00-18:00
T,R	09:00-18:00

Center for Academic Success: UCC 200, 678-839-6280

The CAS provides free tutoring and academic coaching for all UWG students.

Lecture Schedule:

Lecture	Date	Topic	Pre-reading Assignment (Chapter.Section)
1	Aug. 11	Introduction, Studying Life	1.1
2	Aug. 16	The Origins of Life	2.4, 4.2-4.4
3	Aug. 18	Prokaryotes	5.1-5.2, 26.1-26.2
4	Aug. 23	Eukaryotic Cells	5.3, 5.5, 6.1
5	Aug. 25	Microbial Eukaryotes	27.1-27.4
6	Aug. 30		
7	Sept. 1		
8	Sept. 6	Plant characteristics	28.1-28.3
	Sept. 8	**FIRST EXAM**	Study all lecture notes & readings from lectures 1-7
9	Sept. 13	Seedless plants	28.2-28.3
10	Sept. 15	Seed plants	29.1-29.4
11	Sept. 20		
12	Sept. 22		
13	Sept. 27		
14	Sept. 29	Fungi	30.1, 30.4
15	Oct. 4		
	Oct. 6	*Fall Break – no class*	
16	Oct. 11	Fungi	30.2-30.3
17	Oct. 13		
18	Oct. 18	Animal Origins	31.1-31.5
	Oct. 20	**SECOND EXAM**	Study all lecture notes & readings from lectures 8-17
19	Oct. 25	Protostomes - Lophotrochozoans	32.1-32.2
20	Oct. 27		
21	Nov. 1	Protostomes - Ecdysozoans	32.3-32.4
22	Nov. 3		
23	Nov. 8		
24	Nov. 10	Deuterostomes	33.1-33.5
25	Nov. 15		
26	Nov. 17		
	Nov. 22	*Thanksgiving Break – no class*	
	Nov. 24		
27	Nov.29		
	Dec. 1	**THIRD EXAM**	Study all lecture notes & readings from classes 18-27
	Dec. 8	**FINAL EXAM (Comprehensive)**	

Reminder: you are responsible for completing the pre-reading assignment before each class. There is not time to cover all of the material from each reading assignment during lecture, but you are still expected to know it, and it is fair game for quizzes and exams!

Laboratory Schedule:

Dates	Topic	Lab #
Aug. 10-11	No labs	
Aug. 16-18	The Microscope	1
Aug. 23-25	Protists	2
Aug. 30-Sept. 1	Red and Green Algae	3
Sept. 6-8	Seedless plants	4
Sept. 13-15	Gymnosperms	5
Sept. 20-22	Angiosperms	6
Sept. 27-29	**FIRST LAB PRACTICAL**	
Oct. 4-6	Fall Break – no labs	
Oct. 11-13	Fungi	7
Oct. 18-20	Porifera, Ctenophora, and Cnidaria	8
Oct. 25-27	Lophotrochozoans	9
Nov. 1-3	Ecdysozoans	10
Nov. 8-10	Deuterostomes	11
Nov. 15-17	**SECOND LAB PRACTICAL**	
Nov. 22-24	Thanksgiving Break – no labs	
Nov. 29-Dec. 1	No labs	

Reminder: you are responsible for **reading the entire lab and completing the pre-lab assignment** before your lab meets each week.