Biology 100: Principles of Biology
Spring 2012

Instructor: Dr. Heather B. Felise

Classrooms: Lecture – Collier Hall of Science Room 202
Lab – Collier Hall of Science Room 300
Time: Lecture - MWF 11:45am – 12:35pm
Lab – M 1:15 – 4:15pm (section LA) ***OR*** R 12:45 – 3:45pm (section LB)

Office: Hall of Science Room 323
Office Hours: Mondays 1-3pm, Tuesdays 11am – 12pm, Thursdays 10 – 11am or by appointment
Phone: 610-861-1428
Email: feliseh@moravian.edu

Required Textbook: *What is Life? A Guide to Biology with Physiology*, by Jay Phelan, W.H. Freeman and Company, 2011.

COURSE DESCRIPTION: This course will provide an introduction to a broad range of topics in the biological sciences, including biomolecules, metabolism, genetics, evolution, molecular biology, evolution, biodiversity and ecology. But overall, I hope this course will instill a lifelong enthusiasm for science and a solid base of knowledge for application beyond the classroom in the years ahead.

COURSE OJECTIVES:
By the end of this course students will have:

- a knowledge and ability to apply the scientific process
- the ability to objectively analyze and interpret data
- the confidence to independently evaluate scientific claims made by others and/or society
- the means to recognize pseudoscience and anecdotal observations
- an appreciation of how science changes and will continue to change in the future

LECTURE:
Attendance: It is my experience that those students who do not show up for class, do not perform well in class. Therefore to further encourage you to attend class; you will receive 2 points for each lecture you attend and 5 points for each laboratory session attended.

Lecture Exams: There will be four exams, each worth 75 points, given during the designated lecture sessions (Please see the attached course schedule). The will be a 5th exam given during the final exam period and it will be worth 100 points. This exam ***will not be cumulative***. In the event of special needs (such as medical excuse or family emergency) make-up exams will be given, but arrangements must be made in advance and documentation for the absence, e.g. a doctor's note, is required. If there is an emergency please contact me ASAP. ***Make-up exams may be oral*** and will be given at a time I deem appropriate.

LABORATORY:
***See syllabus provided by Amy Musselman**

BLACKBOARD: All information, including announcements, lecture slides and study guides, associated with this course will be posted on Blackboard. You must register for this course on Blackboard the first week of class. Your opportunity to register will ***expire*** on Monday, January 30th. For instructions visit the following website: http://home.moravian.edu/public/cit/_help/blackboard/bbstudent.asp. The course ID is BIO100.SP12 and the enrollment code is "science". ***When registering, please use the email account where you would like to receive course notifications***.

GRADING: The final grade in the course will be based upon the following items:

LECTURE: (~ 65% of Final Grade)

➢ Lecture Mid-term Exams 1-4 (4 x 75 points each)	300 pts.
➢ Lecture Final Exam	100 pts.
➢ Homework Assignments	100 pts.
➢ Class Attendance/Participation	75 pts.

LABORATORY: (~ 35% of Final Grade)

➢ Laboratory Reports/Exercises	200 pts.
➢ Laboratory Notebook	30 pts.
➢ Laboratory Final	50 pts.

CLASS POLICIES:

Cell phones: Turn all cell phones OFF before class! No calls or texting during class. If you are observed texting during class you will be asked to leave the classroom. If this occurs, you will not receive your points for attendance.

***Academic Integrity*:** I expect all class members to adhere to the Moravian College policy on academic honesty (please see **Student Handbook**). If dishonesty is observed on a student's exam, a course grade of an F will be assigned and the individual will not be allowed to withdrawal from the course. If dishonesty is observed on an assignment, the student will receive a zero for that assignment.

***Disability Support*:** Students who wish to request accommodations in this class for a disability should contact Mr. Joe Kempfer, Assistant Director of Learning Services for Disability Support, 1307 Main Street (extension 1510). Accommodations cannot be provided until authorization is received from the office of Learning Services.

BIO100 TENATIVE COURSE SCHEDULE

DATE	DAY	Lecture Topic	Background Reading
1/16	M	Introduction	
1/18	W	What is Science?	Chapter 1
1/20	F	Scientific Thinking	Chapter 1
1/23	M	Chemistry	Chapter 2
1/25	W	Biomolecules	Chapter 2
1/27	F	What is a Cell?	Chapter 3
1/30	M	Cell Membranes	Chapter 3
2/1	W	Cell Structure	Chapter 3
2/3	**F**	**EXAM I**	**Chapters 1-3**
2/6	M	Introduction to Energy	Chapter 4
2/8	W	Photosynthesis	Chapter 4
2/10	F	Cellular Respiration	Chapter 4
2/13	M	Cellular Respiration	Chapter 4
2/15	W	DNA: What is it and what does it do?	Chapter 5
2/17	F	Gene Expression	Chapter 5
2/20	M	Biotechnology	Chapter 5
2/22	**W**	**EXAM II**	**Chapters 4 & 5**
2/24	F	Cell Division	Chapter 6
2/27	M	Mitosis	Chapter 6
2/29	W	Meiosis	Chapter 6
3/2	F	Meiosis	Chapter 6
3/5-3/9	**M, W, F**	**NO LECTURES (Spring Recess)**	
3/12	M	Mendelian Inheritance	Chapter 7
3/14	W	Mendelian Inheritance	Chapter 7
3/16	F	Translation of Genotypes	Chapter 7
3/19	M	**EXAM III**	**Chapters 6 & 7**
3/21	**W**	Darwin's Dangerous Idea	Chapter 8
3/23	F	Mechanisms of Evolution	Chapter 8
3/26	M	Adaptation and Natural Selection	Chapter 8
3/28	W	Evidence for Evolution	Chapter 8
3/30	F	The Origin and Diversification of Life	Chapter 10
4/2	M	The Origin and Diversification of Life	Chapter 10
4/4	W	**EXAM IV**	**Chapters 8 & 10**
4/6-4/9	**F, M**	**NO LECTURES (Easter Recess)**	
4/11	W	Animal Diversification - Vertebrates	Chapter 11
4/13	F	Animal Diversification - Invertebrates	Chapter 11
4/16	M	Plant Diversification	Chapter 12
4/18	W	Plant Diversification - Flowering Plants	Chapter 12
4/20	F	Microbes	Chapter 13
4/23	M	Ecosystems and Communities	Chapter 15
4/25	W	Conservation and Biodiversity	Chapter 16
4/27	F	Special Topics	
5/2	**W**	**FINAL EXAM 1:30PM**	**Chapters 11, 12, 13, 15 & 16**