

Biology 100: Principles of Biology
Fall 2011

Instructor: Dr. Heather B. Felise

Classrooms: Lecture – Collier Hall of Science Room 204
Lab – Collier Hall of Science Room 300

Time: Lecture - MWF 11:45am – 12:35pm
Lab – T 12:45 – 3:45pm (section LA) **OR** R 12:45 – 3:45pm (section LB)

Office: Hall of Science Room 323

Office Hours: Tuesdays 10 – 11am, Thursdays 9 – 10am and Fridays 1 - 3pm or by appointment

Phone: 610-861-1428

Email: feliseh@moravian.edu

Required Textbook: *Biology: A Guide to the Natural World 5th Edition*, by David Krogh, Pearson Higher Education, 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, reproduction, ecology and biodiversity. 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 OBJECTIVES:

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 three exams, each worth 100 points, given during the designated lecture sessions (Please see the attached course schedule). The 4th exam will be given during the final exam period and **will be cumulative**. This exam will be worth 150 points, of which 100 points will be on material from the last quarter of the course and 50 points will be on material from the entire course. 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, September 5th. For instructions visit the following website: <http://home.moravian.edu/public/cit/help/blackboard/bbstudent.asp>. The course ID is BIO100.FA11 and the enrollment code is "biology". 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 1-3 (3 x 100 points each) 300 pts.
- Lecture Final Exam 150 pts.
- Class Attendance/Participation 100 pts.

LABORATORY: (~ 35% of Final Grade)

- Laboratory Reports/Exercises 200 pts.
- Laboratory Attendance 25 pts.
- Laboratory Notebook 25 pts.
- Laboratory Final 50 pts.

CLASS POLICIES:

Cell Phones: Turn all cell phones OFF before class! No calls or texting during class.

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.

Tentative Course Schedule

DATE	DAY	Lecture Topic	Background Reading
8/29	M	Organizational meeting	
8/31	W	Science as a way of learning	chapter 1
9/2	F	Basic chemistry	chapter 2
9/5	M	NO LECTURE (LABOR DAY)	
9/7	W	Biomolecules	chapter 3
9/9	F	Cells	chapter 4
9/12	M	Cell membranes	chapter 5
9/14	W	Cell division	chapter 9
9/16	F	Energy & enzymes	chapter 6
9/19	M	Cell respiration	chapter 7
9/21	W	Photosynthesis	chapter 8
9/23	F	EXAM I	chapters 1-9
9/26	M	Genetics	chapter 11
9/28	W	Genetics	chapter 11
9/30	F	Meiosis and gamete formation	chapter 10
10/3	M	Mutation	chapter 12
10/5	W	How DNA works	chapter 13
10/7	F	Making proteins	chapter 14
10/10	M	NO LECTURE (WINTER BREAK)	
10/12	W	You've got some nerve!	chapter 27.1 - 27.6
10/14	F	Senses and hormones	chapter 27.7-28.5
10/17	M	EXAM II	chapters 11-14, 27 & 28
10/19	W	Defending the body	chapter 29
10/21	F	Transport and exchange I	chapter 30
10/24	M	Transport and exchange II	chapter 31
10/26	W	Animal development	chapter 32
10/28	F	Animals	chapter 23
10/31	M	Evolution fundamentals	chapter 16
11/2	W	Evidence for evolution	chapter 16
11/4	F	Microevolution	chapter 17
11/7	M	Macroevolution and speciation	chapter 18
11/9	W	EXAM III	chapters 29-32, 23, 16-18
11/11	F	The history of life on earth	chapter 19
11/14	M	Plant structure	chapter 24
11/16	W	Plant function and growth	chapter 25
11/18	F	Bacteria and viruses	chapter 21
11/21	M	Bacteria and viruses	chapter 21
11/23	W	NO LECTURE (THANKSGIVING)	
11/25	F	NO LECTURE (THANKSGIVING)	
11/28	M	Populations and communities	chapter 34
11/30	W	The living world	chapter 35
12/2	F	Ecosystems and biomes	chapter 36
12/5	M	Biotechnology	chapter 15
12/7	W	What does our future hold?	
12/14	W	FINAL EXAM 1:30pm	chapters 19, 24, 25, 21, 34 - 36, 15