

COURSE SYLLABUS
BIOL 1408: Introductory Biology—Unity of Life
Synonym: 10590 Section: 016
Lab: M 9:10am-11:50am NRG2 2226
Lecture: MW 12:00pm- 1:15 p.m. NRG4 4146
Spring 2008

Contact Information:

Instructor: Dr. Aniko Szabo Hill MD, PhD

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LAST DAY TO WITHDRAW: April 21. Monday

Course Description: Introductory biology course designed for non-science majors who desire a more conceptual approach to biological topics. An introduction to the nature of science, the characteristics of life, the molecular and cellular basis of life, genetics, reproduction, and development. An emphasis will be placed on how these topics are related to current issues, such as genetic engineering, biotechnology, and problems facing modern society. BIOL 1406 and 1408 may not both be counted toward graduation.

Course Rationale: Through study of basic biology concepts and their applications in medicine and industry, students will (1) become more comfortable with science as a way of knowing, (2) understand basic biology concepts in cellular and molecular biology, and (3) be able to apply these concepts to important social issues.

Instructional Methodology: BIOL 1408 is a lecture/lab class. You must attend both lecture and lab to get credit for the course.

Prerequisite: Proficiency in college-level reading and writing is a prerequisite for this course. This means you must have (1) passed the reading and writing sections of a state-approved assessment test or (2) formerly been classified as TASP exempt or (3) waived from assessment test requirements for reading and writing.

Required Texts/Materials:

1. **Lecture:** Campbell, N. A., Reece, J. B., Taylor, M. R., and Simon, E.J. 2006. *Biology: Concepts and Connections*, 5th ed. San Francisco: Benjamin Cummings.
2. **Lab:** Muzos, S. J. and Jarzem, J. 2005. *Introductory Biology: The Unity of Life, Lab Manual*. Austin, TX: Austin Community College.
3. **Spiral Note Book**

Common Course Objectives: The common course objectives outline the minimal course content that all instructors must teach. To view the common course objectives for BIOL 1408, go to <http://www2.austincc.edu/biology/ccobjectives> and click on the BIOL 1408 link.

Grading Criteria: Your grade will be based on the following assessments:
(1) Lecture Exams (400 points total):

There will be four lecture exams worth 100 points each. All lecture exams will be given in class on the dates given in the lecture schedule. Lecture exams will be approximately 2/3rds multiple choice, true/false, and matching (and graded by scantron), 1/3rd written: short answer, essay and problems. I will provide scantrons for the lecture exams.

(2) Comprehensive Final Exam:

If you have taken all four of the lecture exams, the comprehensive final exam will be optional. If you miss one of the other exams, the comprehensive final exam will substitute for the missed exam. There will be no other makeup exams. If you take all four of the regular exams, you may take the comprehensive final and use it to replace your lowest lecture exam score. If you score lower than that on the final, the final will not count. To take the comprehensive final, please make arrangements with me during the week of May 1.

NO BATHROOM BREAKS DURING EXAMS!

(3) Lab Reports (140 points total):

There are fifteen lab reports, each worth 10 points. I will drop your lowest lab score. Lab reports will be due on the class day after we finish the lab in question. Late labs may be turned in the next class day after their due date and earn a maximum of 8 points. You will not receive credit for labs turned after that point.

If you can't make it to class, you may turn in labs at the mailroom into my mailbox, fax them to me, or scan and email them to me. If you fax them, please make sure you put my name at the top of the first page of your fax. Otherwise, the person who sorts the faxes will not know who the fax is for. If you miss a lab, you will not be able to make it up and will receive a grade of zero on the lab report.

(4) Lab Practicals (50 points total):

There are two lab practicals, each worth 25 points. The practicals will include written questions, such as fill in the blank, short problems to solve, and practical questions, testing your ability to identify things and carry out skills learned during lab.

If you miss one lab practical, you can make it up by taking a makeup lab practical within the week following the lab practical date. You can only make up one lab practical.

Extra Credit: There will be extra credit questions on the lecture exams. Four extra credit assignments will also be given, each worth five points.

Grading Scale:

Your points for all of the course activities are totaled at the end of the course and a percentage score is determined. The following scale is used to determine your final course grade:

Percentage Score	Grade
90% or above	A
80-89%	B
70-79%	C
60-69%	D
below 60%	F

Percentage scores are rounded to the nearest whole number before determining the letter grade.

You can use the following table to keep track of your grades:

Lecture Exams	Grade	Lab Report	Grade
Exam 1	/100 pts	Lab 3	/10 pts
Exam 2	/100 pts	Lab 4	/10 pts
Exam 3	/100 pts	Lab 5	/10 pts
Exam 4	/100 pts	Lab 6	/10 pts
Final	/100 pts	Lab 7	/10 pts
		Lab 8	/10 pts
Lab Practical 1	/25 pts	Lab 11	/10 pts
Lab Practical 2	/25 pts	Lab 12	/10 pts
		Lab 13	/10 pts
		Lab 14	/10 pts
		Lab 15	/10 pts
Extra Credits	Grade	Lab 16	/10 pts
Extra Credit 1	/5 pts	Lab 17	/10 pts
Extra Credit 2	/5 pts	Lab 18	/10 pts
Extra Credit 3	/5 pts	Lab 19	/10 pts
Extra Credit 4	/5 pts		
		Grand Total	/590 pts

Attendance Policy: Everyone is expected to attend and participate in both lecture and laboratory activities. If you do not do so, you should not expect to succeed in the course. You are responsible for all materials and announcements covered in class, regardless of your reasons for missing class. Be sure to ask me about announcements and handouts if you miss a class, and ask a fellow student for lecture notes.

Class Participation: Labs are generally group activities. It is important for each student to participate actively in lab activities to gain the most from them. So jump in and get your hands on stuff, engage your mind, talk and discuss!

If you do not fully participate in each lab and work cooperatively with your group members, your group can request that you be removed from the group. At that point, you may be assigned to another group or may be assigned to work alone.

If you are late and miss any safety instructions for the day's lab, you will not be able to participate in the lab and will have to leave.

Study Time Expectations: To pass the course with a grade of C (70%) you should expect to spend at least 2 hours outside of class for every hour spent in class. That means a minimum of 12 hours of quality, undisturbed study time outside of class each week to complete lab reports, do the assigned reading, study the material and prepare for lecture and lab exams.

Withdrawal Policy: You are responsible for monitoring your progress in the course and determining if you need to withdraw. I will be glad to help you make that decision, but it is essentially up to you. So if it looks like you're not going to get the grade you need, you'll have to make the decision and fill out and turn in the paperwork. You can do that at any ACC admissions and record office. My signature is not required. I will withdraw students who miss safety training or who have not signed the safety agreement by the end of the second week, however. I may also withdraw students for disruptive behavior that creates an environment that is not conducive to learning.

Retroactive withdrawals will not be given in this class. **The last day to withdraw for the semester is April 21, 2008.** If you do drop the class, please keep your paperwork until you have received your grade report at the end of the semester.

Reinstatement Policy: If I drop you for any reason, I will not reinstate you.

Incomplete Grade Policy: If a major emergency comes up towards the end of the semester (after the withdrawal deadline), I may give you an incomplete if you:

- (1) Request an incomplete in writing before the last day of class.
- (2) Have a C average.
- (3) Have completed at least 60% of the course.
- (4) Provide documentation of your emergency
- (5) Meet with me to complete the paperwork.

Please be aware that if you do not finish an incomplete, it becomes an F.

Scholastic Dishonesty:

Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to cheating on an exam or quiz, plagiarizing, unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, research, or self-expression. Academic work is defined as, but not limited to, tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations; and homework.

Students in my classes who engage in acts of scholastic dishonesty will be disciplined according to the procedures outlined in the ACC Student Handbook. For more information, see the student discipline policy in the Student Handbook, which is posted online at:

<http://www.austincc.edu/handbook/>

Academic Freedom:

Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this course and to reserve judgement about debatable issues. Grades will not be affected by personal views. With this freedom comes the responsibility of civility and a respect for diversity of ideas and opinions. This means that students must take turns speaking, listen to others speak without interruption, and refrain from name-calling or other personal attacks.

Controversial subjects that raise strong feelings in people may come up during this class because the concepts of biology we will be studying have implications for these subjects. I expect all students to stick to the description of civil behavior in the statement above. Going beyond the bounds of this behavior will be considered disruptive behavior and may result in the student being dropped from the class.

Students with Disabilities:

Each ACC campus offers support services for students with documented physical or psychological difficulties. Students with disabilities must request reasonable accommodations through the Office for Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester.

If you have registered with the Office for Students with Disabilities, please provide me with your letter of accommodation as soon as possible so I can make arrangements to meet your needs.

Lab Safety:

Health and safety are paramount values in science classrooms, laboratories, and field activities. Students are expected to learn, understand, and comply with environmental health and safety (EHS) procedures and protocols, and must agree to abide by the ACC science safety policy. Students are expected to conduct themselves with appropriate professional behavior and with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be immediately dismissed from the day's activity, may be withdrawn from the class, and/or barred from attending all activities. Specific safety information for each activity will be discussed at the beginning of the activity. For those activities that require specific safety training, a student who is late and misses the safety training will not be able to participate in the activity. The comprehensive science safety policy can be found at:

http://www.austincc.edu/sci_safe/

You will receive general safety training during the second week of class. If you miss the general safety training, you will not be able to attend labs until you have completed the general safety training. In this case, get in touch with me immediately. A limited number of general safety training sessions may be scheduled outside of regular class hours. It will then be your responsibility to make arrangements to attend any scheduled safety training. Any points that you miss in lab because you have not completed safety training cannot be made up.

Labs involving chemicals will require the use of safety glasses or goggles. **If you do not have your safety glasses or goggles with you and the lab requires them, you will not be able to attend the lab.** Also, on days we are doing labs that involve chemicals, **you must wear closed toed shoes** in order to attend the lab. Otherwise, you will have to leave the lab and you will not earn any points for the lab. You may be required to wear a lab apron or coat, depending on your attire.

If you violate a safety policy, I will withdraw you from the class as per department policy. If you have not signed the safety contract by the end of the second week of class, you will be dropped from the class. If dropped for safety reasons, you will not be reinstated into the class.

Lab Cleanup:

These are the things you need to do before leaving the lab:

- (1) Put away all slides, microscopes, materials and equipment as directed.
- (2) When putting away microscopes:
 - a. Turn off the microscope before unplugging the cord.
 - b. Wind the electrical cord around the cord wrap or fold it loosely and fasten with a velcro strip.
 - c. Put the lowest power objective in place.
 - d. Remove any microscope slide and return it to its appropriate location.
 - e. Put on the microscope cover, if any.
 - f. Return the microscope carefully to its cabinet.
- (3) Wash and dry glassware as directed.
- (4) Dispose of liquid and solid wastes as directed.
- (5) Clean the lab table where you have been working.
- (6) Wash your hands before leaving the lab.

If you do not clean up thoroughly, points may be deducted from your total lab grade.

Student Insurance: Students enrolled in lab and field courses are covered by student insurance if they are injured as a result of the lab or field activity. If you are injured, I will give you a student insurance form to take with you to the medical facility where you will be treated. There is a \$25 deductible.

Student Services at ACC: For more information about Student Services, such as the Admissions and Records Office, Advising, etc., please see the Student Services web site at:

http://www.austincc.edu/resources_students/services.php

Instructional Services: Other on-line sources you may find useful include:

- (1) <http://www3.austincc.edu/evpcss/newsemester/pdfs2/studsvcs.pdf>
- (2) <http://www3.austincc.edu/evpcss/newsemester/pdfs2/sssover.pdf>

TENTATIVE SCHEDULE

Date	Lecture Topic	Reading	Lab Topic
January 14	Introduction	Syllabus	Lab 1 & 2
January 16	Life / Science	Chapter 1	
January 21	MLK HOLIDAY		Safety, Lab 5
January 23	Basic Chemistry	Chapter 2	
January 28	Basic Chemistry	Chapter 2	Lab 3
January 30	Biomolecules	Chapter 3	
February 4	Biomolecules	Chapter 3	Lab 4
February 6	Catch-Up Day		
February 11	Test 1		Lab 6
February 13	Cells	Chapter 4	
February 18	Cells at Work	Chapter 5	Lab 7
February 20	Cells at Work	Chapter 5	
February 25	Harvesting Energy	Chapter 6	Lab 8
February 27	Photosynthesis	Chapter 7	
March 3	Catch-Up Day		Lab Practical 1
March 5	Test 2		
March 10- 16	SPRING BREAK		
March 17	DNA and Genes	Chapter 10	Lab 16
March 19	Protein Synthesis	Chapter 10	
March 24	Cell Division	Chapter 8	Lab 18
March 26	Cell Division	Chapter 8	
March 31	Inheritance	Chapter 9	Labs 12, 13
April 2	Inheritance	Chapter 9	
April 7	Catch-Up Day		Labs 14, 10
April 9	Test 3		
April 14	Gene Expression	Chapter 11	Labs 15, 19
April 16	Gene Expression	Chapter 11	
April 21 WITHDRAWAL	Genetic Technology	Chapter 12	Labs 17, 19
April 23	Genetic Technology	Chapter 12	
April 28	Genetic Technology	Chapter 12	Lab 11
April 30	Genetic Technology	Chapter 12	
May 5	Catch-Up Day		Lab Practical 2
May 7	Test 4		