

BIOL 1111 - Introductory Biology I

Course Syllabus – Spring 2012

Individuals with disabilities who need to request accommodations should contact the Disability Services Coordinator, Student Center 255, 678-466-5445, [.disabilityservices@mail.clayton.edu](mailto:disabilityservices@mail.clayton.edu).

COURSE NUMBER AND TITLE: BIOL 1111, Introductory Biology I

CREDIT HOURS: 3.0 semester credit hours

CATALOG DESCRIPTION: The biology sequence (BIOL 1111-1112) covers basic and biological chemistry, cellular organization and function, cell division, bioenergetics, ecology and organ/system physiology as well as Mendelian genetics, molecular genetics, biotechnology, and evolutionary principles. BIOL 1111 includes the basic and biological chemistry, cellular organization and function, cell division, bioenergetics, ecology and selected topics in organ/system physiology.

This sequence is designed for non-science majors. The biology sequence of BIOL 1107 and 1108 is the sequence advised for science majors and most medical majors. If you have questions about the appropriate sequence for your major, please ask your instructor.

COURSE CO-REQUISITE: BIOL 1111L, Introductory Biology Laboratory I (1 semester credit hour)

Note: If a student withdraws from BIOL 1111L, the student must also withdraw from BIOL1111. If a student withdraws from BIOL1111, the student must also withdraw from BIOL 1111L.

NOTEBOOK COMPUTER REQUIREMENT: Each CSU student is required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for the student's academic program. Students will sign a statement attesting to such access. For further information on CSU's Official Notebook Computer Policy, please go to <http://itpchoice.clayton.edu/policy.htm>.

COMPUTER SKILL PREREQUISITES:

- Able to use the Windows™ operating system.
- Able to use a the Microsoft Word™ word processing program.

- Able to send and receive e-mail using the Outlook™ or Outlook Express™ program.
- Able to use a Web browser.

IN-CLASS USE OF STUDENT NOTEBOOK COMPUTERS: Student notebook computers will not be used in this class. Computers will be required to access course materials and to communicate with your instructor.

COURSE OBJECTIVES:

- To understand the basic concepts of chemistry which are applicable to introductory biology.
 - To understand the principles of evolution and the means by which evolution is studied.
 - To describe the structure and explain the function of the cellular organelles.
 - To describe the processes involved in cellular division.
 - To understand general chemical and energetic processes that occur within most eukaryotic cells.
 - To understand ecosystem structure and function.
 - To understand how the scientific method was employed in acquiring biological information.
-

STUDENT LEARNING OUTCOMES:

General education outcomes:

- Communication: knowledge base. BIOL 1111 will provide knowledge base information necessary for communication of information concerning biological chemistry, cellular biology and ecology.

Knowledge Base

Description: Answers to quiz and test questions must convey knowledge of biology that is appropriate to the question.

Evidence: Samples of student work on tests.

Awareness of Recipient

Description: Communication of solutions to quiz and examination problems must be understandable to a trained biologist.

Evidence: Samples of student work on tests.

Organization

Description: Logical and organized thinking is required.

Evidence: Samples of student work on examinations.

Mechanics/Delivery

Description: Solutions to quiz and examination problems must be communicated using proper biological vocabulary.

Evidence: Samples of student work on examinations.

Style

Description: Given that most exams in this course are multiple choice in format, there is no significant evaluation of style, other than proper bubbling of scantron forms.

Evidence: Scantron forms are checked by students for scanning errors. Any detected are reported to the instructor.

- Critical thinking: all components (question/issue, method, evidence, conclusion). BIOL 1111 will require application of knowledge base information to understand biological relationships.

Question/Issue

Description: Given student unfamiliarity with biological concepts, the instructor in all introductory biology courses generally provides the question/ issue component.

Students are encouraged to ask questions about biological concepts.

Evidence: None.

Method

Description: Given an instructor provided question, students are required to determine appropriate biological concepts to address the problem at hand.

Evidence: Samples of student work on examinations.

Evidence

Description: Non-quantitative critical thinking is evaluated through conceptual multiple-choice questions or short answer questions.

Evidence: Samples of student work on examinations.

Conclusion

Description: Conclusions that are biologically correct and reasonable are required.

Evidence: Samples of student work on examinations.

TEACHER EDUCATION STANDARDS: The content of this course syllabus correlates to education standards

established by national and state education governing agencies, accrediting agencies and learned society/ professional education associations. Please refer to the course correlation matrices located at the following web site: <http://a-s.clayton.edu/teachered/Standards%20and%20Outcomes.htm>

INSTRUCTOR INFORMATION:**Dr. Samantha Fowler****Office:** NBS 165**Phone:** 678-466-4816**email:** Samanthafowler@clayton.edu**Internet address:** <http://a-s.clayton.edu/sfowler4/SamanthaFowler.default.htm>**Office Hours:** <http://a-s.clayton.edu/sfowler4/Schedule.html>**Dr. Chris Kodani****Office:** NBS 154**Phone:** 678-466-4782**email:** ChristopherKondani@clayton.edu**Internet address:** <http://a-s.clayton.edu/kondani.index.htm>**Office Hours:** <http://a-s.clayton.edu/ckodani/schedule.htm>**Dr. Joshua Parker****Office:** NBS 163**Phone:** 678-466-4776**email:** midgetfaded@snakedr.net**Internet address:** <http://www.snakedr.net>**Office hours:** TBA

CLASS MEETINGS:

| Section | CRN | Days | Times | Room | Instructor |
|---------|-------|------|--------------------|------|------------|
| 1 | 26112 | MW | 12:45 pm - 2:00 pm | B11 | C. Kodani |
| 2 | 24428 | TR | 9:50 am – 11:05 am | B10 | S. Fowler |
| 3 | 24429 | TR | 12:45 pm - 2:00 pm | U265 | J. Parker |
| 4 | 24457 | TR | 8:00 pm - 9:15 pm | B13 | TBA |

EVALUATION:

| Item | Points |
|-------------------------|------------|
| 4 tests @ 100 points | 400 |
| Quizzes/Assignments | 100 |
| 1 Cumulative Final Exam | 100 |
| Total | 600 |

GRADING:

Your final grade will be determined as follows:

| Grade | Percentage range |
|-------|------------------|
| A | 90 - 100% |
| B | 80 - 89% |
| C | 70 - 79% |
| D | 60 - 69% |
| F | below 60% |

TEXTBOOK INFORMATION: Shuster, M., J. Vigna, G. Sinha, & M. Tontono. *Biology for a changing world*. WH Freeman and Scientific American 2012.
ISBN: 978-0716773245

Chapters to be covered: 1-13

TENTATIVE COURSE SCHEDULE*:

| Week | Week of: | Topic | Chapters |
|---|-----------------|--|-----------------|
| 1 | Jan. 9 | Process of Science, Chemistry & Molecules of Life | 1, 2 |
| 2 | Jan. 16 | (Jan. 16 MLK holiday) Chemistry & Molecules of Life | 2 |
| 3 | Jan. 23 | Cell Function & Structure | 3 |
| 4 | Jan. 30 | Cell Function & Structure, Exam I (chapters 1-3) | 3 |
| 5 | Feb. 6 | Nutrition, Metabolism, Enzymes | 4 |
| 6 | Feb. 13 | Energy flow & Photosynthesis | 5 |
| 7 | Feb. 20 | Dietary energy & Cellular Respiration | 6 |
| 8 | Feb. 27 | Dietary energy & Cellular Respiration, Exam II (chapters 4-6) DNA Structure & Replication | 6 |
| Last Day to Drop w/o Academic Penalty: Friday March 2nd | | | |
| | Mar. 5 | Spring Break Week | |
| 9 | Mar. 12 | DNA Structure & Replication, Genes to Proteins, | 7, 8 |
| 10 | Mar. 19 | Genes to Proteins, Cell Division & Mitosis | 8, 9 |
| 11 | Mar. 26 | Cell Division & Mitosis, Exam III (chapters 7-9) | 9 |
| 12 | Apr. 2 | Genetic mutations and cancer, | 10 |
| 13 | Apr. 9 | Single-Gene Inheritance & Meiosis | 11 |
| 14 | Apr. 16 | Complex Inheritance | 12 |

| | | | |
|--|-----------|--|-----------|
| 15 | Apr. 23 | Stem cells and cell differentiation Exam IV (chapters 10-13) | 13 |
| Thanksgiving Holiday Nov. 23 -25th | | | |
| 16 | Apr. 30 | LAST DAY OF CLASSES | |
| | May 1 - 7 | FINAL EXAMS (See Below) | All above |
| | Dec 3-19 | | |

*This lecture schedule and lecture testing is tentative and may change. Tests may be given the week before or the week after the week listed here--or during the week predicted. Specific test dates will be announced approximately one week in advance in class.

CLASSROOM REGULATIONS AND POLICIES:

Students must abide by policies in the [Clayton State University Student Handbook](#), and the [Basic Undergraduate Student Responsibilities](#).

1. **No cellular telephones, laptops, pagers, instant messaging devices, etc.**
2. **No talking while the instructor or another student is talking.** Students repeatedly violating this policy will be asked to leave the classroom for being disruptive.
3. **Snacks and drink are allowed, within reason.** If you make a mess, you are responsible for cleaning it up. Do not bring in foods that make a lot of noise; this includes bags that rattle noisily.
4. **Visitors are not permitted without the instructor's permission.** Children are not allowed in the classroom at anytime.
5. **Quizzes will be given at the beginning of class.** Students who are late *must remain outside of the classroom until the quiz is finished* and will receive a grade of zero. There are no make-up quizzes.
6. **Exams start at the beginning of class.** Students who are more than 10 minutes late will not be allowed to begin the exam. *There are no make-up exams.*
7. **Attendance is expected.** You are responsible for obtaining any missed information from other students. This includes information concerning quiz dates, exam dates, changes to the syllabus, etc. Students who do not attend regularly generally do not do well in the course.
8. **Each student is granted an absence from one exam and one quiz during the course of the semester.** This is a "no questions asked" situation. Illness,

travel, court, doctor's appointment, oversleeping, etc. are all valid. It is up to you how you use it. Excuses will not be granted for missing more than one exam or quiz. Missing more than one exam or quiz will result in a grade of zero for the missed work. There are no make-up exams. Your final exam grade will be doubled to make up for your missed exam. There are no make-up quizzes. The lowest quiz grade will be dropped.

9. **No form of academic dishonesty will be tolerated in this course.** The most common forms are cheating and plagiarism, but any type of activity that is considered dishonest by reasonable standards will constitute academic dishonesty. The minimum penalty is a grade of zero on the work involved. The maximum penalty is expulsion from the university. Be aware that students found in violation of the university's academic dishonesty code have lost scholarships, athletic eligibility, and/or their U.S. student visa (if an international student). All forms of academic dishonesty will be reported to the Office of Student Affairs for investigation. Judicial procedures are described at <http://adminservices.clayton.edu/judicial/>.
10. **No form of disruptive behavior will be tolerated in this class.** While a variety of behaviors can be disruptive in a classroom setting, more serious examples include belligerent, abusive, profane, and/or threatening behavior. A student who fails to respond to reasonable faculty direction regarding classroom behavior and/or is found to be repeatedly disruptive while participating in classroom activities may be dismissed from class. A student who is dismissed is entitled to due process and will be afforded such rights as soon as possible following dismissal. If found in violation, a student may be administratively withdrawn and may receive a grade of WF. For more information, please refer to: <http://as.clayton.edu/DisruptiveClassroomBehavior.htm>

Common examples of disruptive behavior include, but are not limited to:

- a. Monopolizing classroom discussions
- b. Failing to respect the rights of other students to express their viewpoints
- c. Talking when the instructors or other students are speaking
- d. Constant questions or interruptions which interfere with the instructor's presentation
- e. Overt inattentiveness (e.g. sleeping or surfing the internet)
- f. Creating excessive noise
- g. Entering the class late or leaving the class early
- h. Use of cell phones or pagers in class
- i. Inordinate or inappropriate demands for time or attention
- j. Poor personal hygiene (e.g. noticeably offensive body odor)
- k. Refusal to comply with faculty direction

Students exhibiting these types of behaviors can expect a warning from the instructor or dismissal for the lesson in which the behavior occurs. Failure to correct such behaviors can result in dismissal from the course.

More extreme examples of disruptive behavior include, but are not limited to:

- a. Use of profanity or pejorative language
- b. Intoxication
- c. Verbal abuse of instructor or other students (e.g. taunting, badgering, intimidation)
- d. Harassment of instructor or other students
- e. Threats to harm oneself or others
- f. Physical violence

Students exhibiting these more extreme examples of disruptive behavior may be dismissed from the lesson or the entire course.

Students dismissed from a lesson will leave the classroom immediately or may be subject to additional penalties. Dismissed students are responsible for any course material or assignments missed.

Students dismissed from a course have the right to appeal the dismissal to the department head responsible for the course. Appeals beyond the department head may also be pursued. If no appeal is made or the appeal is unsuccessful, the student will receive a grade of WF (withdrawal – failing) regardless of the current grade in the course.

Conditions attributed to physical or psychological disabilities are not considered as a legitimate excuse for disruptive behavior.

The description of disruptive behavior and listings of examples of disruptive behavior are taken from the Web sites of James Madison University, the University of Delaware and Virginia Tech.

Changes or additions to this syllabus, including reading, exam schedule, grading, and course policies can be made at the discretion of the instructor at any time.

Last update: 11/30/2011