WALTERS STATE COMMUNITY COLLEGE
Course Syllabus

Course: BIOL 1110 – General Biology I
Semester: 2012-2013
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Office Hours: Instructor’s office hours are posted on instructor’s office door
FAX: 423-318-2762
Secretary: 423-585-6865 (Sherry Woody)

Required Textbook and Supplement:


Catalog Course Description:
A study of the chemical and physical basis of the cell, including information pertaining to the atom, bonding, macromolecules and metabolic reactions; cell structure including membranes, cell walls and internal organelles; energetics, respiration, genetics and molecular biology.
This course is intended for science majors.
3 hours lecture ..........................................................3 hours credit

Student Learning Outcomes:
By the end of the course students should be able to:
1. List and distinguish the steps of the “Scientific Method.”
2. Interpret the graph prepared from the data recovered from the experiment.
3. Recognize and critique various aspects of basic chemistry such as atoms, subatomic particles, and atomic number, atomic weight and mass number of common elements used to build complex structures.
4. Recognize and critique various aspects of biochemistry such as molecules, macromolecules, directions and rates of biochemical processes as they apply to the structure and functioning of the cell.
5. Recognize and critique the functional organization of the cell.
6. Critique cellular reproduction from mitosis to meiosis.
7. Interpret the inheritance mechanisms in cells involving both genes and chromosomes.
8. Discuss the structure, replication and repair of DNA.
9. Differentiate the stages of protein synthesis.
10. Discuss genetic manipulation and recombinant DNA.
General Education Course Designation: Natural Science (3 hours)

Methods of Instruction:
Lectures and discussion: You are expected to attend class, pay attention, and participate actively in discussions by answering questions, asking questions, and making comments. You will get more out of the lecture if you have read the material in the textbook ahead of time. Always bring your book with you to lecture. Student Learning Outcomes for students can be found in the Walters State eLearn page for this course and the biology section of the Natural Science homepage, Outlines and PowerPoint presentations used in lecture may be available for your review on the Walters State eLearn page for this course.

Reading: The textbook provides a good general introduction to the field of biology. Most of the topics that are approached in the class are covered by the book. Thus, it will serve to augment lecture and to provide material for discussion. In addition, readings in the book will support the material that you will be studying in labs. The book includes many things that will help you understand the material and study for the tests, including a list of key concepts, chapter summaries, review questions, quizzes, and a list of key terms.

“Mastering Biology” Assignments: Students will be required to complete homework and end-of-chapter self assessments for all content covered in this course. These assignments will include activities and inquiries that encourage practical application of course content.

Expectations:
Satisfactory performance in college courses generally asks for two hours of study outside of class for each hour in class. This estimate applies to an "average" student expecting an "adequate" (=C) grade. Students aiming higher or those with academic problems should expect to spend more effort than the minimum. Should you procrastinate, not read ahead of time, or expect to cram everything on last days before exams this course may not be for you.

The Student can expect from the teacher:
1. Email response within 24 hours during the normal work week. Holidays and vacations excluded.
2. Email during the weekend will be answered on Monday.
3. Exams to be graded and returned in a timely manner.
4. Enthusiasm for the subject and encouragement to help you when you need it.
5. A fair grading system, with feedback.
6. Learning that ties concepts into the real world around us.
7. Respect for you as a learner.

Exams and Grading:
Lecture exams are focused on the student’s ability to understand the Student Learning Outcomes as demonstrated by performance on course examinations.
Evaluation:
A total of 6 multiple choice examinations are administered. There will be a test that covers each unit of material and one comprehensive final exam.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>% of Final Grade</th>
<th>Deadline</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>10</td>
<td>Prior to scheduled lecture</td>
<td>Online</td>
</tr>
<tr>
<td>Self-Assessment (Chapter Quiz)</td>
<td>10</td>
<td>At Completion of in-class discussion of the content</td>
<td>Online</td>
</tr>
<tr>
<td>Unit I Exam</td>
<td>12</td>
<td>Scheduled by Instructor</td>
<td>In Class</td>
</tr>
<tr>
<td>Unit II Exam</td>
<td>12</td>
<td>Scheduled by Instructor</td>
<td>In Class</td>
</tr>
<tr>
<td>Unit III Exam</td>
<td>12</td>
<td>Scheduled by Instructor</td>
<td>In Class</td>
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<tr>
<td>Unit IV Exam</td>
<td>12</td>
<td>Scheduled by Instructor</td>
<td>In Class</td>
</tr>
<tr>
<td>Unit V Exam</td>
<td>12</td>
<td>Scheduled by Instructor</td>
<td>In Class</td>
</tr>
<tr>
<td>Comprehensive Exam</td>
<td>20</td>
<td>Final Exam Week Schedule</td>
<td>In Class</td>
</tr>
</tbody>
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Course Content:

I. The Chemistry of Life:
   A. The Chemical Context of Life 2  28-45
   B. Water and the Fitness of the Environment 3  46-57
   C. Carbon and the Molecule Diversity of Life 4  58-67
   D. The Structure and Function of Macromolecules

II. The Cell:
   A. A Tour of the Cell 6  92-124
   B. Membrane Structure and Function 7  125-141
   C. An Introduction to Metabolism 8  142-161

III. Energy Production
   A. Cellular Respiration: Harvesting Chemical Energy 9  162-184
   B. Photosynthesis 10  185-205
   C. Cell Communication 11  206-227
   D. The Cell Cycle 12  228-245

IV. Genetics: Part A
   A. Meiosis and Sexual Life Cycles 13  246-261
   B. Mendel and the Gene Idea 14  262-285
   C. The Chromosomal Basis of Inheritance 15  286-304
   D. The Molecular Basis of Inheritance 16  305-324
V. Genetics: Part B
   A. From Gene to Protein 17 325-350
   B. Regulation of Gene Expression 18 351-380
   C. Viruses 19 381-395
   D. Biotechnology 20 396-426

Exam Policy:
1. **ALL** exams are to be taken at times scheduled by the instructor.
2. **ALL** exams scheduled in the course by the instructor must be taken in order for the student to receive a passing grade. Any exceptions must be approved by the Academic Dean and the Vice President of Academic Affairs.
3. Make-up exams will be given totally at the discretion of the instructor for excused absences only (excused absences include illness, death in family, and military or jury duty). Make-up exams may be different from exams taken at scheduled times.
4. Make-up exams must be taken before the next scheduled exam.

Course Ground Rules:
Students should attend the first day of class or contact the instructor prior to the first class. Failure to do this may result in being dropped from the class.

Plagiarism, cheating, and other forms of academic dishonesty are prohibited.

Students with disabilities must register with Student Support Services in the Student Services Building, Room U134 (phone 423-585-6892) if they need any special facilities, services, or consideration.

Students in need of tutoring assistance are encouraged to contact the Office of Student Tutoring located in the Student Services Building, Room L107 at phone number 423-585-6920 or 423-798-7982 for the Greeneville Campus, 865-908-5494 for the Sevierville Campus, 423-851-4762 for the Claiborne Campus.

Students receiving any type of financial aid or scholarship should contact the Financial Aid Office before making any changes to their schedule. Schedule changes without prior approval may result in loss of award for the current term and future terms.

Students who have not paid fees on time and/or are not correctly registered for this class and whose names do not appear on official class rolls generated by the Admissions and Records Office will not be allowed to remain in class or receive credit for this course.

Cellular phone use during classroom interaction is prohibited. Cellular phones must be turned to the non-audible mode until after class, at which time calls can be received or checked. (See the Walters State Catalog/Handbook)

For information related to the cancellation of classes due to inclement weather, please check the college’s Web site at www.ws.edu or call the college’s student information line, 1-800-
225-4770, option 1; InfoConnect, (423) 581-1233, option 1045; the Sevier County Campus, (865) 774-5800, option 7; or the Greeneville/Greene County Center for Higher Education, (423) 798-7940, option 4. Also, please monitor local TV and radio stations for weather-related announcements. For additional information on this policy see the college catalog.

In the event of a pandemic or other college declared critical event that impacts the college’s ability to proceed with academic course activities as planned, the college reserves the right to alter this course plan. In the event of a pandemic or other event, please refer to the college’s home web page, www.ws.edu or call InfoConnect, (423) 581-1233 for further information.

Regular class attendance is a student’s obligation. (See the Walters State Catalog/Student Handbook) If for some reason a student misses class, it is his or her responsibility to see the instructor regarding missed assignments and/or activities and to be prepared for the next class. Excessive absences may substantially lower the semester grade. The college requires the instructor to keep accurate records and to report when students are not attending class.

Students are required to supply a #2 pencil for each lecture exam.

The wearing of hats and caps in class is not allowed! Students will be asked to remove their hats and caps.

**STAY AWAKE IN CLASS.** Your mere presence in class is not sufficient—you must be able to actively process the information presented! Sleeping in class is disruptive in two ways: the student who is snoozing is not interested and not participating in the classroom discussion; secondly, sleeping in class is considered to be disrespectful to the teacher and other students. The penalty for sleeping in class may range from the student being requested to leave the class with a following conference with the instructor, to notification of the Vice-President of Academic Affairs (in the cases of habitual sleepers). If you have a medical condition that prevents you from staying awake in class, please discuss this with the instructor.

**WSCC Catalog Notification Statement:**
All students attending Walters State Community College, regardless of the time and location of the class, must abide by the rules and regulations outlined in the current Walters State Catalog/Student Handbook and the current “Walters State Timetable of Classes.” A copy of the Catalog/Handbook and the “Timetable of Classes” may be obtained from the Admissions Office on the Main campus or at any of our off-campus sites. You may also access the Catalog/Handbook on-line at the following web address: http://www.ws.edu/catalog.

**Alternative Teaching Plan**
In the event of a pandemic or other college declared critical event, the lead faculty member for this course will use eLearn to communicate with the students. If the lead faculty member is affected by this event, another member from the teaching team will assume instruction for the course. The course will continue utilizing an online format of instruction and testing.
General Education Core Competency (CC) courses – ENGL 1010, SPCH 2010, MATH 1530 or 1630 or 1710, and CPSC 1100 or MGMT 1100 – must be completed by the time the student completes 30 hours of college credit towards a degree at Walters State Community College. Completion of the courses with a passing grade is the primary form of documentation of competency. Alternate methods of documentation are described in the College Catalog (“General Education Competency Requirements”).

**ATTENTION:** The Natural Science faculty members are concerned with proper academic advising of students in **ALL** Pre-Professional programs. It is our explicit desire to help you with any advising problems you may encounter.