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## **BIOL 1107 - Principles of Biology I**

### **Course Syllabus – Fall 2016**

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*Individuals with disabilities who need to request accommodations should contact the Disability Services Coordinator, Student Center 214, 678-466-5445, [disabilityservices@mail.clayton.edu](mailto:disabilityservices@mail.clayton.edu).*

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**COURSE NUMBER AND TITLE:** BIOL 1107 Principles of Biology I (CRNS: 80272)

**CREDIT HOURS:** 3.0 semester credit hours

**CATALOG DESCRIPTION:** An introductory biology sequence designed for science majors which includes chemistry, cell structure and function, cell division, molecular genetics, Mendelian genetics, evolution, plant and animal systematics, and ecology. BIOL1107 is the first course of a two semester sequence for students majoring in the sciences or in some pre-professional programs. It is expected that students have a biology and chemistry background from high school and have a familiarity with algebra. Writing coherently is also expected.

**CO-REQUISITES:** BIOL1107L, Principles of Biology I laboratory. **Withdrawal from BIOL1107 requires withdrawal from BIOL1107L and withdrawal from BIOL1107L requires withdrawal from BIOL1107.**

**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 computer's operating system
- Able to access and send e-mail
- Able to use a web browser and search engine
- Able to use a word processing program and spreadsheet program for assignments as needed
- Able to install software as required for accessing course materials, including browser plug-ins such as Adobe Flash player, Adobe PDF reader, etc.
- Able to access GeorgiaVIEW/Desire2Learn
  - Student training videos and print materials can be found at <http://www.clayton.edu/cid/d2lstudenttraining>
  - You can gain access to Desire2Learn by signing into the SWAN portal and selecting "GaVIEW" on the top right side. If you experience any difficulties with Desire2Learn, please e-mail or call The HUB ([TheHub@mail.clayton.edu](mailto:TheHub@mail.clayton.edu) or (678) 466-HELP)

Students who do not have the required skills should go to the HUB and/or Student Software Support Services for training and help. Your instructor is not able to provide this training. Assignments may require use of your computer and an inability to complete an assignment due to a lack of the above (or other general computer issues) will not be an acceptable excuse.

#### **IN-CLASS USE OF STUDENT NOTEBOOK COMPUTERS:**

Student notebook computers may be used in the classroom in this course for class assignments. Computers will be required to access course materials, work on assignments outside of class, and to communicate with your instructor. **Students may be permitted to use computers in class for general use at the instructor's discretion. Instructors may deny permission to use a computer during class time.** In addition, instructors reserve the right to forbid computer use to particular students if those students are found using them for purposes not related to the course (e.g., web surfing, email, instant messaging, etc.). This same limitation applies to the use of other electronic devices in class (including, but not limited to cell phones, personal digital assistants, etc.). Violation of these rules may result in loss of points, so check with your instructor to determine what is acceptable.

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#### **COURSE OBJECTIVES**

- To understand science as a process of inquiry.
- To describe the levels of organization in living things.
- To integrate chemical information in the investigation of cell structure and function.
- To investigate the processes of bioenergetics necessary for life.

- To investigate inheritance and genetics from the Mendelian, chromosomal and molecular perspective.

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## STUDENT LEARNING OUTCOMES:

### General education outcomes:

The following link provides the Clayton State University Core Curriculum outcomes (see Area D):  
[http://www.clayton.edu/Portals/5/core\\_curriculum\\_outcomes\\_clayton.pdf](http://www.clayton.edu/Portals/5/core_curriculum_outcomes_clayton.pdf)

### Biology outcomes:

BIOL1107 supports outcomes 1, 4, 5, and 7 of the biology major:

- Outcome 1. Knowledge of the basic principles of major fields of biology.
- Outcome 4. Ability to communicate orally and in writing in a clear concise manner.
- Outcome 5. Ability to collect, evaluate, and interpret scientific data, and employ critical thinking skills to solve problems in biological science and supporting fields.
- Outcome 7. Appreciation for the impact of biological and physical science on the environment and society

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## TEACHER EDUCATION STANDARDS

### Conceptual Framework:

The mission of the Teacher Education Unit is to prepare professional educators who engage in *reflective practice* and who are *competent, caring, committed, collaborative, culturally responsive*, and prepared to teach diverse learners in an ever-changing society.

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://www.clayton.edu/teachered/standardsoutcomes>.



## OPERATION STUDY

At Clayton State University, we expect and support high motivation and academic achievement. Look for Operation Study activities and programs this semester that are designed to enhance your academic success such as study sessions, study breaks, workshops, and opportunities to earn Study Bucks (for use in the University Bookstore) and other items.

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### INSTRUCTOR INFORMATION:

#### DR. J. YVETTE GARDNER (CRN 80272)

Office: Lab Annex 166

Phone: (678) 466-4779

Email: [JuttaGardner@clayton.edu](mailto:JuttaGardner@clayton.edu)

Internet address: <http://faculty.clayton.edu/jgardner>

Office hours: Mon 3:30-5:00, Wed 3:30-5:00 CSU Campus

Tuesday 9:00am until noon

Link to campus map: <http://www.clayton.edu/maps/maincampus>

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### CLASS MEETINGS

CRN	SECTION	DAYS	TIMES	LOCATION	INSTRUCTOR
80272	01	Mon/Wed	2:10 – 3:35pm	B11	J. Gardner

### REQUIRED MATERIALS:

**You are required to provide your own scantrons for exams.** Scantrons can be purchased at the bookstore. Students who fail to bring a scantrons on the day of the exam will receive a zero for any sections of the test that required the scantrons.

### TEXTBOOK INFORMATION:

#### Required text:

- **Campbell Biology**, 10th Edition, Reece et al. The Benjamin/Cummings Publishing Company, Inc., 2014, Chapters 1-10, 12-17, 20
- **Access to masteringbio.com** (included if you have purchased your text book new - otherwise, you can purchase access at [www.masteringbio.com](http://www.masteringbio.com)). If you purchase access

to masteringbio.com separately, you are responsible for making sure it is compatible with the US 10th Edition of the textbook.

- **Writing papers in the biological sciences**, 4th edition, Victoria E. McMillan. Bedford/St. Martin's. New York . (0312440839)

**Optional texts:**

- Scientific American: Current Issues in Biology v5 (0-321-54187-1)
- Scientific American: Current Issues in Biology v6 (0-321-59849-0)
- *Inquiry in Action: interpreting scientific papers* (0-3215-3659-2)

**EVALUATION**

ITEM	PERCENTAGE
4 Lecture Exams, Worth 100 points Each	50%
Assignments	15%
Quizzes	25%
Cumulative Final Exam	10%
<b>Total</b>	<b>100%</b>

**TENTATIVE CLASS**

**SCHEDULE**

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

WEEK OF:	TOPICS and TENTATIVE EXAM DATES	CHAPTERS
August 14	Introduction: Themes in the Study of Life Chemistry	1 2
August 21	Water <b>Recitation 1: Chemistry</b>	3
August 28	Carbon	4
September 4	Macromolecules <b>Recitation 2: Water</b>	5
<b>September 3 – September 5 LABOR DAY- No classes</b>		
September 11	Cells <b>Exam 1 (Chapters 1-4 Wednesday)</b> <b>Recitation 3: Macromolecules</b>	6

September 18	Cell Membrane <b>Recitation 4: Cells</b>	7
September 25	<b>Exam 2 (Chapters 5-7 Wednesday)</b> Metabolism <b>Recitation 5: Cell Membrane</b>	8
<b>Midterm: Last Day to Drop w/o Academic Penalty: OCTOBER 7th</b>		
October 2	Cell Respiration Photosynthesis <b>Recitation 6: Metabolism</b>	9 10
<b>Fall Break OCTOBER 8-11- No classes</b>		
October 9	Photosynthesis No Recitation	10
October 16	Cell Cycle/Mitosis Meiosis/Sexual Reproduction <b>Exam 3 (Chapter 9-10 Wednesday)</b> <b>Recitation 7: Cellular Respiration/Photosynthesis</b>	12 13
October 23	Meiosis Mendelian Genetics <b>Recitation 8: Mitosis/Meiosis</b>	13 14
October 30	Chromosomal Basis of Inheritance <b>Recitation 9: Meiosis</b>	15
November 6	Molecular Basis of Inheritance <b>Exam 4 (Chapter 12- 15 Wednesday)</b> <b>Recitation 10: Genetics</b>	16
November 13	Molecular Basis of Inheritance	16
November 20	Protein Synthesis <b>Recitation 11: Transcription</b>	17
<b>NOVEMBER 23-26 THANKSGIVING- No Classes</b>		
November 27	Protein Synthesis <b>Recitation 12: Translation</b> <b>Exam 5 (Chapter 16- 17 Friday)</b>	17
December 4	<b>LAST DAY OF REGULAR CLASSES</b> <b>December 5<sup>th</sup></b> <b>FINAL EXAM PERIOD</b>	<b>Final Exam</b> <b>Comprehensive</b> <b>Chapters 1 - 17</b>

Please note that the schedule is tentative and the dates of the exams and the chapters that each exam will cover are [tentative](#) and [subject to change](#). You should check this page or with your instructor often for updates to the schedule.

Due dates for assignments may be changed at the instructor's discretion. You are responsible for keeping track of due dates and turning in your work when it is required.

Exam dates are not set until they are announced in class. The exam date will be announced by your instructor, so check with him/her if you are uncertain of the date of an upcoming exam.

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### **Mid-term Progress Report**

The mid-term grade in this course, which will be issued on **October 4, 2016**, reflects approximately 25% of the entire course grade. Based on this grade, students may choose to withdraw from the course and receive a grade of "W." Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar, or withdraw on-line using the Swan by mid-term, which occurs on **October 7, 2016**.

[Instructions for Withdrawing are provided at this link.](#) **The last day to withdraw without academic accountability is Friday October 7, 2016**

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### **Course Policies:**

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

### **University Attendance Policy**

Students are expected to attend and participate in every class meeting. Instructors establish specific policies relating to absences in their courses and communicate these policies to the students through the course syllabi. Individual instructors, based upon the nature of the course, determine what effect excused and unexcused absences have in determining grades and upon students' ability to remain enrolled in their courses. The university reserves the right to determine that excessive absences, whether justified or not, are sufficient cause for institutional withdrawals or failing grades.

## Course Attendance Policy

Students are expected to attend and participate in every class meeting. For any excuse to be "acceptable", you must provide me with an original (no photocopies) of a document from a competent authority (doctor or other healthcare provider, a subpoena, jury summons, etc.). For this purpose, a note from your parents is **NOT** acceptable. The excuse must specifically indicate the dates that are to be excused, must be presented upon the first class day that the student returns to school, and makeup arrangements must be made at that time. **Do not schedule dental appointments, routine doctor appointments, or other meetings during class time.**

**You must bring the excuse within one week of the absence.** Without a valid excuse, a grade of zero points will be assigned for the missed quizzes, assignments, and exams.

## Policy for Quizzes, Assignments, and Exams

**Quizzes** may be given at any time during the class. Students who are not present when the quiz is administered will receive a grade of zero on the quiz. **There are no make-up quizzes.** With a valid excuse, the next quiz will count twice.

**Assignments** are due at the start of class on the due date listed in the schedule. Late assignments are accepted, unless changed by the instructor. **Late assignments will be assessed a 25% penalty for being late.**

**Exams** start at the beginning of class. A student who is more than 20 minutes late for the exam will not be allowed to begin the exam. **There are no make-up exams, unless approved by the instructor.** With an acceptable excuse, the final exam will be counted twice. This is at the discretion of the instructor.

## Computer and Cell Phone Policy

Laptop computers may be used during lecture. Laptops are for taking notes only. The use of laptop computers during lecture is at the discretion of the instructor. Abuse of the laptop computer policy may result in no laptop use during lecture.

**Turn off all cell phones, pagers, etc. when entering the classroom. Cell phone use is NOT allowed during lecture classes.** Cell phone use during class is disrespectful and distracting to the instructor and other students. **Any student using their cell phone during class (ringing, talking, or sending/receiving text messages) may be asked to leave the class. Repeat offenders will receive a 5 point reduction in overall grade.** No electronic devices may be out or in use during quizzes or exams. Students using a cell



phone during a quiz or exam will receive a zero on that assessment and reported to Judicial Affairs for cheating and conduct violation.

## **E-MAIL**

Each student must activate his/her e-mail account at Clayton State University. The class list-serve is only used by the instructor. You must obtain permission from the instructor to use the class list-serve. You should check GaVIEW regularly for new announcements. Handouts given in class and other important items will usually be posted in GaVIEW as well. Communication must be from **CSU email account**. In the email, you must include the following information:

- Clearly identify yourself in the body of the e-mail. Address the instructor in an appropriate manner in the email.
- Clearly identify which class you are writing about. Be specific with your question.
- Do not ask specific questions concerning grades, as they cannot be discussed by e-mail.

**E-mails that do not meet these requirements will not receive a response.**

## **General Course Policies**

Visitors, including children, are not allowed in the classroom.

No smoking, other use of tobacco, eating, or drinking is permitted at any time in the classroom.

All examinations are closed book, unless noted by the instructor. NO student produced study sheets, note cards, notes from class, electronic information, etc. may be used on exams. During exams you may have only pencil (s) and an eraser at your desk.

**No form of academic dishonesty will be tolerated in this class.** Any type of activity that is considered dishonest by reasonable standards may constitute academic misconduct. The most common forms of academic misconduct are cheating and plagiarism. **All instances of academic dishonesty will result in a MINIMUM penalty of a grade of zero for the work involved.** All instances of academic dishonesty will be reported to the office Student Life/Judicial Affairs. Judicial procedures are described at <http://adminservices.clayton.edu/judicial/>.

## **Disruptive Classroom Behavior:**

Disruptive behavior in the classroom can negatively affect the classroom environment as well as the educational experience for students enrolled in the course. Disruptive behavior is defined as any behaviors that hamper the ability of instructors to teach or

students to learn. Any assignment given or assigned on the day a student is asked to leave due to disruptive behavior, the assignment will result in a zero.

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

- Eating in class
- Monopolizing classroom discussions
- Failing to respect the rights of other students to express their viewpoints
- Talking when the instructor or others are speaking
- Constant questions or interruptions which interfere with the instructor's presentation
- Overt inattentiveness (e.g., sleeping or reading the paper in class)
- Creating excessive noise
- Entering the class late or leaving early
- Use of pagers or cell phones in the classroom
- Inordinate or inappropriate demands for time or attention
- Poor personal hygiene (e.g., noticeably offensive body odor)
- 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:

- Use of profanity or pejorative language
- Intoxication
- Verbal abuse of instructor or other students (e.g., taunting, badgering, intimidation)
- Harassment of instructor or other students
- Threats to harm oneself or others
- 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.**

<sup>1</sup>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.