Master Syllabus Template

*All courses require a syllabus. Syllabi may be photocopied and/or posted on the class Blackboard Companion site. Faculty must review the course syllabus with students on the first day of class.*

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Keiser University
General Education

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|---|---|
| Course Prefix & Number: | BSC 1005 |
| Course Title: | General Biology |
| Course Format: | Face to Face, Online, Hybrid |
| Credit Hours: | 3.0 |
| Course Schedule: | |
| Prerequisites: | None |
| Co-requisites: | None |
| Faculty: | 954-776-4456 Ext.<br>---------@keiseruniversity.edu |
| Office Hours: | |
| Course Description: | Introduces elementary cell structure, metabolism, and reproduction. Topics include aspects of general and biological chemistry, cell cycle, DNA structure and replication, protein synthesis, nature of heredity and the genetic basis of speciation |
| Program Goal(s): | Understand the major concepts and applications of biology and their relationship to the physical and social sciences. |
| Course Objectives: | Upon Completion of the course, the student will be able to: |

**1.** Describe the organization of the living world, the requirements of life, and the roles of observation, hypothesis, experimentation, correlation, theory, and natural laws in the sciences.

**2.** Describe the chemical basis of life, and identify the structures and functions of the major biological molecules.
**3.** Describe the structural components of cells in terms of their structure, location, and function, and explain the relationships between thermodynamics and chemical reactions, chemical equilibrium, the role of enzymes, and how substances enter and leave cells.
**4.** Describe the main events of energy captured by photosynthesis and energy production and utilization by respiration, and fermentation. Identify the initial, intermediate, and end-products of the metabolic pathways.
**5.** Describe the cell cycle, mitotic cell division, meiotic production of gametes, the effects of abnormal meiosis in the production of genetic disorders, and explain the role of Mendel's Laws as a basis for inherited genetic traits and disorders.
**6.** Describe the structure of DNA, its replication, its role in protein synthesis through transcription, and translation, and explain the relationship of DNA to chromosome structure
**7.** Describe the mechanisms of gene control, and explain the failure of genetic control in the genetically-related diseases, such as cancer.
**8.** Describe methods used to identify genetic disorders, the tracking of inherited genetic disorders, the Human Genome Project, and the goals of gene therapy.

Grading and Evaluation Methods:

| Item | Percent Total Grade | Due Date |
|---|---|---|
| Test 1 | 10 | |
| Test 2 | 10 | |
| Test 3 | 10 | |
| Homework | 10 | |
| Presentation | 15 | |
| Participation | 10 | |
| Final Exam | 30 | |
| Post test | 5 | |
| | 100 | |

Grading Scale

| **Letter Grade** | **Numeric Grade** |
|---|---|
| A | 90.00-100.00% |
| B | 80.00-89.99% |
| C | 70.00-79.99% |
| D | 65.00-69.99% |
| F | Up to 64.99% |

Required Textbook:
Mader, S., & Windelspecht, M (2016). *Essentials of Biology (5th ed.).* New York, NY: McGraw-Hill. ISBN: 9781260151374.

Topical Outline/Course Assignments/Calendar:
Course Assignment Format is to provide evidence of mastery of the course objectives which are linked to specific program goals and outcomes. Please see attached for an example of this format. (See Attached)

## Course Guidelines and Policies*

**Faculty course guidelines must not contradict standard University or Program policies as stated in the University Catalog, Program Student Handbook and/or Program Manual.*

*Additional guidelines and pre-approved policies may be included, examples appear below. The University Department Chair (UDC) should be consulted prior to making changes in the verbiage or adding additional policies. Any policies included in the syllabus should fit with the "students first" philosophy, and compliment the mission of the University and the program.*

### Academic Integrity

Students are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. Plagiarism, cheating and other misconduct are serious violations and will not be tolerated, and may result in academic penalties, including suspension or dismissal.

### Participation

Participation is a basic requirement for an effective learning community. Students' participation will be assessed and reflected in the participation grade. Class participation is based on the following criteria: arriving to class on-time; paying attention during lectures and discussions; respectful listening when someone else is speaking; being engaged in the class and in your learning without distractions such as texting, side-bar conversations, checking your phone or email etc.

### Missed Tests/Quizzes

Makeup exams will be allowed only with pre-approval of the instructor or with an acceptable, documented reason. Acceptable reasons for makeup exams include severe illness, family emergency or other unavoidable events. Exam format for makeup exams may be different than the original exam but the content for the exam will not change.

### Late Assignments

Assignments are due at the start of class on the day noted. Late assignments without penalty will be accepted only in cases of emergency. Students should discuss turning in late work directly with the instructor and in advance of the due date whenever possible. Late assignments will not be accepted if the assignment has already been graded and returned to the class.

### Civility/Professionalism

This class is a community of learners, which means we will depend upon each other for support and information. In order to learn, we must be open to the views of people different than ourselves. Please honor the uniqueness of your classmates and appreciate the opportunity we

have to learn from one another. Please respect each other's' opinions and refrain from personal attacks or demeaning comments of any kind.
It is of the utmost importance to communicate with courtesy and professionalism. Professional courtesy includes respecting other's opinions, being courteous and respectful, and working together in the spirit of cooperation.

## University and Program Policies

Students are expected to abide by the policies set forth in the University Catalog and the Student Program Handbook/Manual. The University Catalog is available electronically at http://www.keiseruniversity.edu/catalog/. The Program Student Handbook/Manual is available electronically at the direction of your instructor.

## Disability Accommodations:

In compliance with the Americans with Disabilities Act (ADA), students who require reasonable accommodations due to a disability to properly execute coursework must complete the application process and receive approval from the review committee. The first step is to consult with the Campus President or Dean of Academic Affairs.