# MERCER COUNTY COMMUNITY COLLEGE SCIENCE AND HEALTH PROFESSIONS

#### **COURSE OUTLINE**

### **BIO 100 INTRODUCTORY BIOLOGY (3 CREDITS)**

Course Coordinator: Professor Diane N. Hilker

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Office Hours: To be announced

# **Required Course Materials**

Cell Biology and Genetics (11<sup>th</sup> Edition) Christine Evers and Lisa Starr Thomson Brooks/Cole Publisher, 2006 ISBN: 0-495-01964-X

#### **CATALOG DESCRIPTION**

Selected fundamental principles of biology for students who have not had high school biology or who need a review before taking other courses in biology, horticulture and the life sciences. Topics include scientific inquiry, chemistry of living organisms, cellular organelles, techniques of observation, data gathering and analysis. Emphasis will be placed on the necessary study skills that are useful when taking college science courses. Occasional laboratory demonstrations. BIO 100 does not fulfill any requirements in the Mercer County Community College biology program and is designed to prepare students for BIO 101, General Biology.

Prerequisite: ENG 030 or permission of instructor

Corequisite: MAT 034

# **Major Course Objectives:**

- 1. Introduce students to methods that will improve study skills and help them be successful in college science courses.
- 2. Inform students of the learning resources available at the college.
- 3. Review basic math skills and improve familiarity with the metric system.
- 4. Introduce students to various laboratory equipment and analytical tools of the biologist.
- 5. Give students experience with techniques of scientific observation, collection of data, graphing and interpretation of data.
- 6. Provide students with a general survey of the hierarchy of biological organization.
- 7. Introduce students to chemical concepts that are fundamental to understanding biological systems.
- 8. Introduce students to the living cell including such topics as cellular organelles, cell division and membrane structure and function.

### **GRADING/EVALUATIONS**

All tests and quizzes will be given in class. You must take these tests/quizzes at the time scheduled. It is you responsibility to be present. An absence will constitute a zero score on any test/quiz. Tests/quizzes can be taken **only once** and there will be **no make-up dates** for these tests. If you have an excused absence, it is important that you contact me on the same day of the missed scheduled test/quiz or earlier. Homework assignments that are turned in late, will result in a reduction of points.

Final grades will be determined and based on your total accumulation of points. The course work will be divided as follows:

Tests: 40%
Quizzes: 30%
Homework/Library Assignment: 20%
Attendance/Participation: 10%

Any student in this class who has special needs because of a disability is entitled to receive accommodations. Eligible students at Mercer County Community College are assured services under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. If you believe you are eligible for services, please contact Arlene Stinson, the Director of Academic Support Services. Ms. Stinson's office is LB221, and she can be reached at (609) 570-3525.

Final grades will be based on the point system as indicated below:

93 - 100%Grade: Α 90 - 92%A-B+87 - 89%83 - 86%В B-80 - 82%77 - 79%C+70 - 76%C 60 - 69%D F 0 - 59%

#### **ATTENDANCE**

I expect students to attend <u>every</u> class unless you are ill or have some other important reason for not attending. If you are unable to attend please inform me of your absence and the reason for being absent. Students will be withdrawn ("W" grade) from the class for having an excessive number of absences with no apparent reason. An attendance sheet will be circulated for every class. Please print your name and only your name.

# MERCER'S ACADEMIC INTEGRITY POLICY

A student who: (a) knowingly represents work of others as his/her own; (b) uses or obtains unauthorized assistance in the execution of any academic work or; (c) gives fraudulent assistance to another student is guilty of cheating. Violators will be penalized.

# TOPICAL OUTLINE AND READING ASSIGNMENTS

Topic 1: How to Study Science?

Topic 2: Resources at the College: Instructors, Advisors, Tutoring Center, Library,

Counselors and Computer Labs (Summary Paper)

Topic 3: Is Your Math Ready for Biology?

Topic 4: Standard Biology Laboratory Equipment

Topic 5: Introduction to the Compound Light Microscope (Chapter 4)
 Topic 6: Scientific Figures (maps, tables, diagrams, graphs and their use)
 Topic 7: The Scientific Process (Chapters 1 and 4): Laboratory Report
 How Do We Name Living Things? (Chapters 1, 4 and 7))

Topic 9: The Chemistry of Life (Chapters 1, 2 and 3)

Topic 10: Cells - The Basic Unit of Life (Chapters 4 and 5)