

MAYLAND COMMUNITY COLLEGE

Welcomes You To:

BIO 111.20-Fall 2007

General Biology

4 credit hours, 6 contact hours

Course Description

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

Prerequisites: RED 090, MAT 070

Corequisites: none

Instructor Information

Instructor: Clayton A. Harpold
Office Location: 257
Telephone Number: 765-7351 extension 204
E-mail Address: charpold@mayland.edu

Office Hours: Monday: 1300-1600
Tuesday: 1100-1300
Wednesday: 1300-1500
Thursday: 1100-1300
Friday: 0800-0900

Course Information

BIO 111 meets in room 265 for lecture and lab.

Section 10: 1700-1950 lecture/laboratory MW

Required Text(s): Starr, Taggart. *Biology: The Unity and Diversity of Life*. 11th Edition. Brooks/Cole 2006
Perry, Morton, and Perry, *Laboratory Manual for Starr and Taggart's Biology: The Unity and Diversity of Life*, Brooks/Cole 2006

Course Objectives/Competencies:

The primary reason stated for teaching biology in the College Transfer curriculum is to increase your knowledge of yourself and your environment. Factual knowledge is important and necessary, but you must also learn to apply this knowledge and think critically. You must learn to observe carefully; to evaluate what you see; to draw objective, non-emotional conclusions; to analyze, synthesize, and reason; to question; to think for yourself. Therefore, the College Transfer objectives of a biology course are:

1. You will develop the ability to think critically by comparison and contrast of living systems and by the keen, objective evaluation of natural phenomena.
2. You will develop an understanding and appreciation of the many varied relationships between organisms and their total environment.
3. You will gain an appreciation of the contributions of science to thinking and technology.
4. You will become sensitive to the opportunities for applying biological principles to the solution of both social and personal problems.

5. You will form a basis for continued study in related fields.

This course directly supports the mission statement and competencies for the General Ed core courses in the Division of Arts and Sciences:

Mayland Community College's General Education core courses will provide the essential body of knowledge and skills that enable all degree-level students to perform competently as employees and as contributing members of society.

Graduates of all degree programs at Mayland Community College will have completed the general education core. That core encompasses the essential knowledge and skills that enable all degree-level students to perform competently as employees and as contributing members of society. Upon completion of the general education core, students will be able to demonstrate the following:

- Effective communication in speaking and listening situations needed for college, personal, and work successes
- Effective communication in writing and reading situations needed for college, personal, and work successes
- Logical, critical, and creative thinking to evaluate evidence and reach a conclusion
- Application of basic computer use skills
- Application of fundamental math skills
- Basic awareness of the diversity of various world groups from both historical and contemporary contexts

Expectations:

Students will take **personal responsibility** for learning in this course. This will be accomplished by:

- attending all class meetings unless absence is unavoidable;
- spending two hours of study for each hour in class (6 hour class plus 12 hours of study each week);
- completing reading assignments and assigned learning objectives prior to class;
- participating in class activities and laboratory exercises;
- demonstrating college-level effort and behavior;
- doing your own work – plagiarism and cheating are unacceptable;
- completing all exams on their scheduled days.

The Instructor will take personal responsibility for:

- creating a classroom atmosphere conducive to learning;
- preparing lectures and labs that will assist in the successful completion of the objectives;
- exhibiting a positive attitude and providing words of encouragement.

Attendance Policy/Tardiness/Make-Up Work:

Since you will be applying material presented in class and lab, your assignments will lack the integration of class material if you do not attend. With this in mind, you are expected to attend all class and lab sessions. If an absence cannot be avoided, it is your responsibility to contact me regarding the reason for the absence and missed work.

If a student has not been in contact with the instructor and has not attended class for a consecutive two-week period an administrative withdrawal will be submitted by the instructor.

Attendance Policy/Tardiness/Make-Up Work:

You are expected to attend every scheduled lecture and lab. If you miss more than 15% of scheduled lecture times (5 classes), your lecture grade will be lowered one letter grade. The set-up of the laboratory portion of this course is such that it *will not be possible* to make up most labs. A tardy is recorded if you are late for class or if you leave before class is dismissed. Three tardies will equal one absence.

Grading Criteria/Tests/Projects:

There will be 6 lecture exams during this session (100 pts each). At the end of the semester there will be a comprehensive final exam worth 200 points. $\frac{3}{4}$ of your grade will come from the lecture portion of the class. $\frac{1}{4}$ will come from the lab portion.

Grading Scale:

A = 90 - 100
B = 80- 89
C = 70 - 79
D = 60 - 69
F = below 60

Inclement Weather Procedures:

Refer to the student handbook for a complete description of the policy. MCC will close or operate on a delay whenever it is deemed necessary due to the weather. Keep abreast of local radio or the MCC website for all inclement weather information. Use your own judgment about traveling in inclement weather.

Academic Standards/Student Expectations/Ethics:

1. You should be present at all class meetings. See attendance policy.
2. Read all assignments before the class where they will be discussed. Participate actively in class, group, and lab activities.
3. Demonstrate college-level effort and behavior. The instructor has the option to withdraw any student who causes disruption of class.
4. Officially withdraw from the class if it is necessary to drop.
5. Notify the instructor and registrar if you desire an audit during registration (1st 5 days of the semester).
6. Help your classmates in the learning process. Collaborative learning is often more effective, and definitely more fun, than learning in solitude.

Anyone caught cheating in this course will be withdrawn and assigned an "F."

Any of the following actions are considered cheating:

- copying answers from another student's test, exam or lab worksheet
- providing answers for another student to copy
- the use of crib notes or cheat sheets during a test

Withdrawal dates:

September 25, End of unconditional withdrawal

November 1, End of conditional withdrawal

Special accommodations:

Any student requesting special accommodations for this course due to a disability should apply for services through the SOAR Office or the Counseling Center, which will document the disability. A counselor will then help determine which accommodations, if any, the student needs for success in this course.

Course Outline/Weekly Topics*

Week	Chapters	Labs
1	1, 2	Introduction
2	2, 3	Measurement
3	3 <u>Test 1</u>	Microscopy
4		Homeostasis
5	5 <u>Test 2</u>	Macromolecules
6	6	Cells
7	7	Diffusion and Osmosis
8	8 <u>Test 3</u>	<u>Mid-term</u>
9	9, 10	Photosynthesis
10	10	Respiration
11	11 <u>Test 4</u>	Mitosis and Meiosis
12	12	Heredity
13	13	Blood typing
14	14 <u>Test 5</u>	Nucleic Acids
15	15	Biotechnology
16	16 <u>Test 6</u> Comprehensive Final Exam	<u>Lab Final</u>

* - all schedules are tentative and may change as conditions warrant.