

**BIOL 111 Natural Science of the Chesapeake Bay**  
**Montgomery College**  
**Takoma Park Silver Spring Campus**

**Instructor**

**Texts and Materials**

There is no text to purchase. Instead, I expect students to access online readings and videos through the course Blackboard site.

**Course Description**

The Chesapeake Bay is an estuary of natural and economic importance surrounded by one of the most densely populated regions of the United States. Basic principles of natural science will be learned using the Chesapeake watershed as a model. A historical perspective of the bay will be presented and contrasted with the current condition of the estuary. Students will research, discuss, and present issues influencing the Chesapeake Bay. *Assessment Level(s): [ENGL 101/ENGL 101A](#), [READ 120](#). Three hours each week. Formerly BI 109.*

BIOL 111 fulfills a General Education Natural Sciences requirement. This course provides multiple opportunities to develop written and oral communication, critical analysis and reasoning, scientific and quantitative reasoning, and information literacy.

**Objectives**

1. Define natural science, value ecosystem dynamics, and demonstrate understanding of Chesapeake Bay ecosystem components.
2. Identify and evaluate environmental principles, chemical and physical cycles, and ecosystem dynamics.
3. Describe the diversity and lifecycles of major species of Chesapeake Bay organisms and describe how these organisms utilize their environment.
4. Recognize how regulatory actions impact populations of organisms and socio-economics.
5. Demonstrate group work skills.

**Policies and Expectations**

**Attendance**

Attend regularly and on time. If you miss lecture, it is your responsibility to find out what you have missed from your classmates.

**Academic Integrity**

I expect all students to have the highest standards of academic integrity as outlined in MC's *Student Code of Conduct*. Students must do their own work on all assignments and tests. If academic dishonesty occurs, you will receive a zero for that assignment and you may be dropped from the course with a grade of F. Academic dishonesty includes (but isn't limited to) using notes during an exam (except when explicitly allowed by the instructor), copying answers from another student, allowing other students to copy your answers, using a source's words verbatim without putting them in quotes, and failing to give credit to outside sources of information on assignments. *If there are more than 5 words in a row on any assignment or test that come directly from any source, they must be in quotes or that will be considered plagiarism, even if you cite it.* Cell phones must be turned off during exams or I will assume you are cheating. If you are not certain if something is allowed, it is your responsibility to ask me about it before you do it.

### **Make-up exams**

If you miss a lecture exam for whatever reason, you will get a zero on that exam. However, you can drop one lecture exam and replace it with the optional final (make-up) exam, so missing one exam will not hurt your grade. You cannot make-up more than one exam – further missed exams will receive a grade of zero.

If you miss an oral presentation or a group project, I will need to see a doctor's written note or a court duty notice, and then I will give you an opportunity to make up the points. **YOU MAY NOT MAKE UP MORE THAN ONE ASSIGNMENT** (presentation OR group project) for any reason. Traffic, work, and other issues are not excuses for missing presentations or group projects.

**Cell phones:** Please turn phones off during class.

**E-mail:** Please check MC e-mail regularly.

### **Late Assignments**

I take 10% off for *each calendar day* that an assignment is late. If you want to turn something in and I'm not in my office, please slide it beneath my office door with the date you turned it in clearly marked.

### **Important Student Information Link**

In addition to course requirements and objectives that are in this syllabus, Montgomery College has information on its web site (see link below) to assist you in having a successful experience. It is important that you read and understand this information. The **link below provides** information and other resources to areas that pertain to the following: student behavior (student code of conduct), student e-mail, the tobacco free policy, withdraw and refund dates, disability support services, veteran services, how to access information on delayed openings and closings, how to register for the Montgomery College alert System, and finally, how closings and delays can impact your classes. If you have any questions please bring them to your professor. If any student would like a written copy of these policies and procedures, the professor would be happy to provide them. By registering for

this class and staying in this class, you are indicating that you acknowledge and accept these policies.

<http://cms.montgomerycollege.edu/mcsyllabus/>

## Grading

The grading scheme will be *approximately* as follows:

<u>Assignment</u>	<u>Points</u>
Lecture Exams (100 points each)	300
Final Exam	100
Organism Presentations (25 points each)	50
Group projects (50 points each)	100
Self-guided field trip write-up	40
Plagiarism tutorial	5
Research paper topic	5
Research paper references	10
Research paper brief outline	10
Research paper	50
MINUS lowest exam grade (lecture exam or final exam)	-100
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Total	570

## Extra credit

Please don't count on extra credit to improve your grade. If you work hard the entire semester, you will not need extra credit. Please do not ask me for individual extra credit, because I won't give you any.

## To succeed in this course

*I expect you to:*

1. come to class.
2. find readings and videos on Blackboard and read them or watch them before the lecture. Reading in advance will save you time, help you understand lectures, and help you ask more useful questions. Use the study guides as you read to determine what to focus on.

3. take good notes. Write down what I say and what others say, not just what is written on the board.
4. ask questions inside and outside of class.
5. get involved in class discussions. Being active will help you learn, and also help the time pass quickly.
6. come prepared for group projects.
7. study regularly, not just a day or two before the exam. Use the study guides I give you to focus your studying.
8. respect all members of the class.

*You can expect me to:*

1. come to class prepared and on time.
2. try to teach the material in an interesting, understandable, and enjoyable way.
3. answer questions both in and out of class as patiently and clearly as possible.
4. help you outside of class as much as possible within the limits of my schedule.
5. be fair and respectful to all students.
6. do everything I can to make this a challenging course that is interesting, fun, and worth the time and effort you put into it.

*Tentative Lecture Schedule*

<b>Date</b>	<b>Topic</b>	<b>Due dates</b>
<b>Habitats and Ecology</b>		
Aug 27	Introduction and Chesapeake Bay overview	
Aug 29	Chesapeake Bay overview and geology	
Sep 5	Geology and circulation	
Sep 10	Pelagic zones and food webs	
Sep 12	Pelagic zones continued	Pelagic presentations
Sep 17	Marshes and seagrass: productivity, diversity and nursery habitat	
Sep 19	Marshes and seagrass continued	Marshes and grasses presentations
Sep 24	Mudflats, beaches and population ecology	<b>Research paper topic and plagiarism tutorial</b>
Sep 26	Mudflats continued	Mudflat presentations

Oct 1	<b>Exam 1</b>	
Oct 3	Oyster reefs and communities	
Oct 8	Oysters continued	Oyster reef presentations
Oct 10	Forests and biogeochemical cycles	<b>Research paper references</b>
Oct 15	Forests continued	Forest presentations
<b>Challenges and solutions</b>		
Oct 17	Water pollution	
Oct 22	Water pollution, continued	
Oct 24	<b>Group Project 1 – water pollution</b>	
Oct 29	Fisheries oysters	<b>Research brief outline</b>
Oct 31	Forests outside / review	
Nov 5	<b>Exam 2</b>	
Nov 7	Fisheries crabs	
Nov 12	Climate change	
Nov 14	Climate change continued	<b>Research paper</b>
Nov 19	<b>Group Project 2 – Climate change</b>	
Nov 26	Land use	
Nov 28	Land use continued	<b>Field trip report</b>
Dec 3	Invasive species	
Dec 5	<b>Exam 3</b>	
Dec 12	<b>Final exam 8-10 am</b>	

Last day to drop with a refund September 5

Last day to drop with no grade September 19

Last day to drop with a grade of W November 14