



# Program Approval Form

For approval of new programs and deletions or modifications to an existing program.

### Action Requested:

- Create New (SCHEV approval required except for minors)  
 Inactivate Existing  
 Modify Existing (check **ALL** that apply)

- Title (SCHEV approval required except for minors)  
 Concentration (Choose one):  Add  Delete  Modify  
 Degree Requirements  
 Admission Standards/ Application Requirements  
 Other Changes: \_\_\_\_\_

### Type (Check one):

- B.A.  B.S.  Minor  
 Master's  
 Ph.D.  
 Undergraduate Certificate\*  
 Graduate Certificate\*  
 Bachelor's/Accelerated Master's  Other:

College/School:  
Submitted by:

VSE Department: CEIE  
 Lisa Nolder Ext: 3-5607 Email: snolder@gmu.edu

Effective Term:

Fall 2018

**Please note:** For students to be admitted to a new degree, minor, certificate or concentration, the program must be fully approved, entered into Banner, and published in the University Catalog.

### Justification: (attach separate document if necessary)

The instructor teaching BIOL 377 recommended a 100 level biology class because the civil engineering students struggled with the advance material without any biology background. The Biology Department Chair, Larry Rockwood, suggested BIOL 107 as a solid introductory course in biology.

### Program Title: (Required)

Title must identify subject matter. Do not include name of college/school/dept.

### Concentration(s):

### Admissions Standards / Application Requirements:

(Required only if different from those listed in the University Catalog)

### Degree Requirements:

Consult University Catalog for models, attach separate document if necessary using track changes for modifications

### Courses offered via distance:

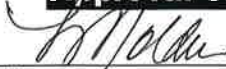
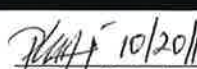

(if applicable)

### TOTAL CREDITS REQUIRED:

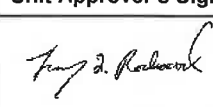
Existing	New/Modified
Civil and Infrastructure Engineering, BS	
Biology: <a href="#">BIOL 377</a> Applied Ecology 3credits	Biology: BIOL 107 Introduction to Biology II 3 credits

\*For Certificates Only: Indicate whether students are able to pursue on a  Full-time basis  Part-time basis

### Approval Signatures

 10/5/17 Department Date  
 10/20/17 College/School Date  
 10/23/17 Date  
 Provost's Office Date  
*Required for Minors and Interdisciplinary Programs*

If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date
Biology Department	Larry L. Rockwood		September 28, 2017

### For Undergraduate Programs only

Undergraduate Council Member \_\_\_\_\_ Provost Office \_\_\_\_\_ Undergraduate Council Approval Date \_\_\_\_\_

### For Graduate Programs Only

Graduate Council Member \_\_\_\_\_ Provost Office \_\_\_\_\_ Graduate Council Approval Date \_\_\_\_\_

## BIOLOGY 107: INTRODUCTORY BIOLOGY II

### COURSE SYLLABUS –

#### PLEASE READ THIS SYLLABUS CAREFULLY!

#### COURSE COORDINATOR Dr. David. Luther

e-mail: dluther@gmu.edu

Office hours: Thursday 10:00 – 12:00 and Friday 10:30-12:30

#### LECTURE INSTRUCTOR

Section 001: TBA

Section 002: TBA

Section 003: TBA

**REQUIRED TEXTS** **Lecture Text:** Campbell, Reece, Taylor, Simon and Dickey. 2014. *Biology: Concepts and Connections*, 8th ed., Pearson Benjamin Cummings, San Francisco.

#### COMPUTER SOFTWARE USED IN THIS COURSE

We will be using Pearson's MASTERINGBIOLOGY website for this course. You will be using this site to access learning activities, do homework assignments, and take online quizzes. If you purchased your books from the GMU bookstore, it comes packaged with an access code for the Masteringbiology.com website. If you purchased a used text or purchased your text from another source, you may need to purchase access to the masteringbiology.com site separately. It is possible to purchase a subscription to the masteringbiology.com website separately, but you will need it for graded assignments.

#### Basic requirements for Mastering

**Windows XP, Vista, Windows 7 Supported browsers:** \* Firefox 13.0 (Windows XP, Windows 7)  
Google Chrome 19.0 Internet Explorer 8.0, 9.0 (Windows 7) Safari 5.0

**Mac OS 10.6, 10.7 Supported browsers:** \* Firefox 13.0 Safari 5.0 Google Chrome 19.0 \* Additional browser versions may also be supported. As newer versions become available, these are also tested as part of Pearson's commitment to quality. If any recent browser version is not supported, it will be noted in these system requirements. **What about tablets?** An app is available for the Pearson eText on tablets. The Apple iPad is not currently supported by Mastering. Mastering assignments require Adobe Flash technology. (More about Flash Player requirement). Further information can be found at the following website: <http://www.masteringbiology.com/site/support/system-requirements.html>

#### BIO 107 - DESCRIPTION AND OBJECTIVES:

Biology 107 is part of the University General Education program and, as such, fulfills, in part, the Natural Science requirement for a 2-semester science course sequence. This course has four goals: 1) to ensure that all undergraduates develop skills in information gathering, written and oral communication, and analytical and quantitative reasoning; 2) to expose students to the development of knowledge by emphasizing major domains of thought and methods of inquiry; 3) to enable students to attain a breadth of knowledge that supports their specializations and contributes to their education in both personal and professional ways; and 4) to encourage students to make important connections across boundaries (for example: among disciplines; between the university and the external world; between the United States and other countries). It is the instructors' aim that we enable our students to achieve these goals.

Biology 107 begins with an exploration of the concept of animal homeostasis, and then expands on this by looking into the structure and function of the major animal organ systems, with emphasis on mammals. The second part of the semester discusses major concepts in ecology and conservation biology.

This course engages students in scientific exploration; fosters their curiosity; enhances their enthusiasm for science; and enables them to apply scientific knowledge and reasoning to personal, professional and public decision-making. To achieve these goals, students are challenged to: 1) Understand how scientific inquiry is based on investigation of evidence from the natural world, and that scientific knowledge and understanding; 2) Recognize the scope and limits of science; 3) Recognize and articulate the relationship between the natural sciences and society and the application of science to societal challenges (e.g., health, conservation, sustainability, energy, natural disasters, etc.); 4) Evaluate scientific information (e.g., distinguish primary and secondary sources, assess credibility and validity of information); and 5) Participate in scientific inquiry and communicate the elements of the process.

**GMU e-mail:** All George Mason students are issued an e-mail account. Instructors often find it convenient or necessary to e-mail individual students, or the class as a whole. The George Mason in-house policy is to use only the GMU e-mail accounts. Therefore, it is necessary for the students to activate and frequently check their GMU e-mail account to insure receiving messages in a timely fashion.

**GMU ID's:** All students are issued a GMU photo ID card. Please carry this with you, especially during exams, as it will be necessary for instructors to verify each student's identification. Instructors are not required to honor identification cards other than those issued by the University.

**ATTENDANCE AND CLASSROOM BEHAVIOR:** Regular attendance is crucial to successful completion of this course. Studies have shown that students who attend each class perform far better than those whose attendance is irregular. Many important, interesting and subtle points can be made by instructors, which may not be presented in the textbook. Instructors may also make announcements regarding changes in scheduling or material to be covered. Therefore, students are expected to attend every lecture, to arrive on time, and to remain until class is dismissed. **Students are responsible for being aware of all information and announcements presented in class, whether or not they are present.**

Students are also responsible for being sure they are properly enrolled in the course. If a student drops the course, he or she must see to the paperwork him or herself. Instructors will not "automatically" drop a student who merely stops coming to class.

A well-timed question can help everyone in class, even the instructor. Students are also expected to be respectful and considerate of one another as well as their instructors. To that end, please listen when someone else is talking, and turn off all cell phones or other noise-makers while in class or lab. If it is necessary to carry on activities that are not directly related to the material being presented in class, please conduct these activities elsewhere. In order to make the most effective use of both students' and instructor's time and energy, disruptive students may be required to leave the classroom.

**STUDENTS WITH DISABILITIES:** We are happy to accommodate students with disabilities. If you feel this would be helpful to you, you must contact the instructor as well as the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the DRC.

**HONOR CODE:** The Biology Department strongly enforces the GMU Honor Code. Students are expected to read and adhere to the George Mason University Honor Code. **Ignorance of the Honor Code is no excuse for infractions thereof.** All work done in class (exams, data sheets, quizzes, etc.) must be the sole work of the student. Copying data, falsifying data, cheating on exams and quizzes,

failing to credit the work of others are all violations of the Honor Code and will be dealt with most seriously.

**CANCELED CLASSES**

If an examination is scheduled for a day on which classes are canceled due to weather or any other reason, the examination will be given during the next scheduled class. Call (703) 993-1000 for official notification of canceled classes.

**GRADING:** Two hourly lecture exams will be given, each worth 200 points. The final exam will be cumulative and worth 300 points. In those lecture sections, which meet only once a week for 2.67 hr., the hourly exams will be given during the first portion of the class period; after a short break, the lecture will resume. For the hourly and final exams, students will be required to bring with them one or two sharpened pencils, a good eraser, a Scantron form No. SC882-E, and a valid GMU ID card. The use by students of electronic devices of any type is prohibited during exams. The hourly and final exams will start promptly at the scheduled time. Students are expected to arrive on time to all exams! Students arriving late to an exam will be seated only at the discretion of the instructor, and will be given no extra time to take the exam. Once one student has finished and handed in an exam, no other, late arriving students will be allowed to take the exam.

**There are no scheduled make-up exams in this course.** If there are legitimate reasons whereby you miss an exam, you must make it up on the day of the final. Whereas exams are normally mostly multiple-choice, a make-up exam will be short answer and essay in format. You must notify the instructor immediately if you are in danger of missing an exam. Failure to do so will result in a zero on that exam.

**GRADING**

Graded Material	Points
Exam one	200
Exam two	200
Online Homework (Mastering Biology)	300
Final Exam	300
Total	1000

Points	Percent	Letter Grade
>980	98-100	A+
920-979	92.0-97.9	A
900-919	90.0-91.9	A-
880-899	88.0-89.9	B+
820-879	82.0-87.9	B
800-819	80.0-81.9	B-
780-799	78.0-79.9	C+
700-779	70.0-77.9	C
600-699	60.0-69.9	D
<600	<60.0	F

**BIOL 107 Lecture Schedule**

Week	Lecture Topic	Chapters in Text
One	Tissues, Homeostasis	20
Two	Digestive System	21
Three	Respiratory System	22
Four	Circulatory System/Exam 1	23

Five	Immune System	24
Six	Endocrine System	26
Seven	Spring Break	
Eight	Nervous System	28
Nine	Review and Exam 2	
Ten	The Biosphere	34
Eleven	Communities and Ecosystems	37
Twelve	Animal Behavior	35
Thirteen	Conservation Biology	38
Fourteen	Conservation Biology and Review	
Fifteen	Final Exam	

---