Course Change Request

New Course Proposal

Date Submitted: 01/09/26 2:07 pm

Viewing: BIOL 215 : Cell Structure and Function Laboratory

Last edit: 01/09/26 2:07 pm

Changes proposed by: jbazaz

Programs referencing this course

SC-BA-BIOL: Biology, BA

SC-BS-BIOL: Biology, BS

In Workflow

1. **BIOL Undergraduate Representative**
2. **SC Curriculum Committee**
3. SC Assistant Dean
4. Assoc Provost-Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 01/09/26 2:47 pm Geraldine Grant (ggrant1): Approved for BIOL Undergraduate Representative

Are you completing this form on someone else's behalf?

Yes

Requestor:

Name	Extension	Email
Val Olmo	5302	volmo

Effective Term: Fall 2026

Subject Code: BIOL - Biology

Course Number: 215

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Cell Structure and Function Laboratory

Banner Title: Cell Structure Function Lab

Will section titles vary by semester? No

Credits: 1

Schedule Type: Laboratory

Hours of Lab or Studio per week: 3

Repeatable: May be only taken once for credit, limited to 3 attempts (N3)

Max Allowable Credits: 3

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):

BIOL 213 (concurrency allowed)

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Degree(s):

School(s):

Catalog Description:

Laboratory for science majors and preprofessionals in life sciences. An introduction to cell chemistry, metabolism, and genetics. This is the accompanying laboratory for BIOL 213 Cell Structure and Function.

Justification:

What: Creating a lab to accompany BIOL 213.

Why: To decouple the lecture and lab to make it easier to retake only the lecture or lab to facilitate degree progression.

Does this course cover material which crosses into another department? No

Learning Outcomes:

Will this course be scheduled as a cross-level cross listed section?

Attach Syllabus

BIOL 215 Syllabus Example.pdf

Additional Attachments

Staffing:

Amanda Wright and the BIOL 213 laboratory manager

Relationship to Existing Programs:

This lab will be written into both the BS and BA in Biology.

Relationship to Existing Courses:

This new lab will accompany BIOL 213.

Have you reached out to the Libraries to determine whether there are adequate resources to support your course? If not, please email Meg Meiman, Associate University Librarian for Learning, Research, and Engagement at mmeiman2@gmu.edu.

No

Additional Comments:

Reviewer Comments

Key: 19142

BIOL 215 Cell Structure and Function (1 credit)

Laboratory Syllabus

Pre/Co-Requisite: BIOL 213

Instructor: _____ Email: _____

Lab Manual: Cell Biology, A Lab Manual (newest edition)

Week	Lab Manual	Quiz	What's due
1	Introduction, Lab Safety Rules Ex. 1 Scientific Process Math/Chem Worksheet		Lab worksheet
2	Ex 2 Qualitative Analysis of Biomolecules		Lab Worksheet Math/Chem worksheet
3	Ex. 3 Protein Extraction	Quiz #1	Lab Worksheet
4	Ex. 4 Quantitative Analysis of Proteins		Lab Worksheet
5	Ex. 5A Enzyme Activity	Quiz #2	Lab Worksheet Report Introduction
6	Ex. 5B Enzyme Activity Cont'd		Lab Worksheet
7	Ex. 6 Plant Pigment Extraction and Analysis	Quiz #3	Lab Worksheet Report M&M/Results
8	Ex. 7 Basic Microscopy Skills	Quiz #4	Lab Worksheet
9	Ex. 8 Extraction of DNA and Examination of Mitosis and Meiosis		Lab worksheet Report Conclusions
10	Ex. 9 Quantitative Analysis of DNA and Intro to Micropipetting	Quiz #5	Lab Worksheet
11	Ex 10 DNA Technology: Fingerprinting		Lab Worksheet Full Lab Report due
12	**Comprehensive Practical Final Exam**	Quiz #6	

Lab times are NOT interchangeable. There are no make-up labs.

In order to maintain grade consistency from one lab section to another, the coordinator of the BIOL 215 course reserves the right to adjust (upwards or downwards) of any lab section in order to reduce grade variation between lab section averages overall.

Grading Scale
A = 93.00 – 100%
A- = 90.00 -92.99%
B+ = 87.00 – 89.99%
B = 83.00 – 86.99%
B- = 80.00 – 82.99%
C+ = 77.00 – 79.99%
C = 70.00 – 76.99%
D = 60.00 – 69.99
F = 59.99% and below

Grading Breakdown

6 quizzes, lowest will be dropped	n= 5; 10pts each	50 pts
Enzyme Laboratory Reports	n= 1; 20pts	20 pts
11 Lab Worksheets, lowest dropped	n= 10; 5pts each	50 pts
Math/Chem Worksheet	n= 1, 10pts	10 pts
Final Exam (practical)	n= 1; 20pts	20 pts
Totals		150 pts

The quizzes will be given during the lab period at the instructor's discretion. If you are late or absent, you cannot make up a quiz. The lowest quiz grade will be dropped for calculation of your lab grade. Questions on the quizzes will come primarily from the lab exercises since the last quiz but can also come from the lab exercise to be performed that day.

Lab worksheets will be completed during the laboratory period and will be turned in at the end of the laboratory exercise. One lab worksheet score will be dropped; therefore, they will not be accepted at any other time. Instructors can deduct points from your worksheet grade due to failure to follow directions or lack of participation in class.

A lab report will be written on the Enzyme labs. You will turn in different sections of your own individual lab report during and subsequent to the enzyme labs. Once the graded sections of your report have been returned to you, you will submit a final version of the enzyme report which represents your best effort. The final full version may be written by your entire lab group.

A practical final exam will be administered during the final lab period. This test requires students to demonstrate PROFICIENCY in the technical aspects of lab exercises performed during the semester, for example: making dilutions, using the spectrophotometer and/or other equipment used, and the ability to interpret results, etc.

Attendance at lab is mandatory for this course. Participation is required in each of the lab exercises and is essential for proper understanding of the material. Your instructor may not allow you to participate if you arrive more than 15 minutes after the lab session has started or your dress or behavior is not compliant with lab safety rules. Exercises in the laboratory build on each other over the course of this semester. Be aware that failure to complete one lab may negatively impact your ability to complete other, later assignments. Missed lab assignments will be given the grade of "0", and there are no make-up assignments. **Three absences from lab will result in a total grade of zero (0) for the entire lab portion of the course grade**. Should a student need to miss class for any reason (including student-led activities, personal, health, religious, or medical), all students get to drop one lowest quiz and worksheet score.

Academic Integrity: **Student members of the George Mason University academic community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.** While you will be working in a group of 2 to 6 students (depending on the lab exercise), the work you turn in must be your own work. You and your lab partner(s) may have the same data and draw the same conclusions, but you must present the data your own way and express your conclusions in your own words. **Self-plagiarism is still plagiarism. Do not resubmit previous work.**

Please reference the Common Policy Addendum: https://stearnscenter.gmu.edu/home/gmu-common-course-policies/