

Biology 188 First Year Research Laboratory, Fall 2021

Biology 188, 2.0 credits

Tuesdays from 1:30-4:20 PM plus one hour TBA

ISC 306

Pre-corequisites: BIOL 117 and permission of the instructor

Instructor

Dr. Kevin T. Militello (Dr. M.)

Office: ISC 357

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Office hours: Mondays from 2:45-4:00 PM, Wednesdays from 9:45-11:00 AM,

Thursdays from 8:30-9:30 AM, or by appointment (format TBD)

Course Description (from the undergraduate bulletin)

A laboratory course for first-year Biology and Biochemistry students who are interested in exploring research. Students will design, execute, and interpret experiments in several areas including Microbiology, Molecular Biology, and Genetics. Credits 2(1-3).

End of Course Learning Objectives

At the conclusion of the course.....

- students will be able to design, execute, and interpret experiments dealing with modern questions in biology.
- students will be able to properly use modern equipment in biology.
- students will be able to present data in oral and written form.

Textbook

There is not a required textbook for the course. Appropriate resources will be posted on Canvas.

Supplies

- *A computer running Windows or MAC OS is required.
- *A calculator with scientific notation is required.
- *A laboratory coat is required.
- *A sharpie marker is required (permanent ultra-fine point recommended).

Grading

thirteen quizzes @ 10 points each (12 total, drop 1)	120 points
two presentations @ 25 points	50 points
two laboratory reports @ 25 points	<u>50 points</u>
	220 points total

- Students should check Canvas and their Geneseo email regularly for course updates.
- Students will have activities outside of the laboratory including monitoring experiments and reading research articles.
- Quizzes will be given every week except for week 1 and week 7 (mid-semester break). Material will come from the previous laboratory, current laboratory, assigned readings, and solutions/dilutions questions. Make up quizzes/exams will only be administered in special circumstances involving significant medical excuses.
- Two oral presentation and two written reports will be prepared during the course.

The following scale (minimum averages) will be used to calculate final grades based on the percentage of 220 total points obtained. Student point totals or grading scheme may be adjusted to reflect course difficulty or section differences (instructor's discretion).

A, 94; A-, 90
B+, 87; B, 84; B-, 80
C+, 77; C, 74; C-, 70
D, 65; E, < 65

Safety

- Facemasks are always required when in-person. Follow procedures to sanitize all shared equipment and benches before and after use. Stay tuned for changing COVID rules.
- Always wash your hands when you enter and leave lab. Maintain social distancing if possible. During entry to the lab this means waiting until the atrium is clear.
- Leave your backpacks and coats in the atrium area. Absolutely no food, drink, or cell phones allowed at the bench.
- Be sure you know what protective gear is necessary and follow lab safety guidelines.
- Know where safety equipment is located.
- Follow proper waste disposal procedures (bacterial/biohazard and chemical waste separate from other waste).

Students with Disabilities

SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional or learning disabilities. Students should consult with the Director in the Office of Disability Services (Erwin 22, access@geneseo.edu) and their individual

faculty (Dr. M.) regarding any needed accommodations as early as possible in the semester.

Academic Honesty and Plagiarism

All students are expected to follow the specific rules of academic honesty and plagiarism for SUNY Geneseo. Please refer to the 2020-2021 Undergraduate Bulletin for more details.

Copyright Protection

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Date	Quiz	Laboratory	Reports
8/31/2021	no	Course introduction	
9/7/2021	yes	Transformation 1	
9/14/2021	yes	Transformation 2	
9/21/2021	yes	Transformation 3	
9/28/2021	yes	Transformation 4	
10/5/2021	yes	Transformation 5	Oral presentation
10/12/2021	no	NO CLASSES	
10/19/2021	yes	Antibiotic Resistance 1	
10/26/2021	yes	Antibiotic Resistance 2	
11/2/2021	yes	Antibiotic Resistance 3	
11/9/2021	yes	Genetically Modified Plants 1	
11/16/2021	yes	Genetically Modified Plants 2	Written Report
11/23/2021	yes	Genetically Modified Plants 3	
11/30/2021	yes	Final Project 1	Written Report
12/7/2021	yes	Final Project 2	Oral presentation