Welcome to Molecular Biology Laboratory Online!

In this online course we will work together to explore modern molecular biology-based techniques & bioinformatic tools & learn how these techniques are applied in current research. We will emphasize the Molecular Biology of Aging throughout the course. All material will be delivered online through OAKS. This includes synchronous meetings via Zoom.

Any Questions? Let’s chat: mccoyja@cofc.edu

Course materials including video lectures, study guides, worksheets & research articles will be provided via OAKS. No additional materials required.

Pre/Co-requisites: Co-enrollment or completion of Genetics (Biol 305) and co-enrollment or completion of Molecular Biology (Biol 312)
Learning Objectives:
The goal of this laboratory is to provide participants with a deeper understanding of the modern techniques and applications of molecular biology research. Specifically, this includes:
- Nucleic Acid Extraction and Purification
- Restriction Enzyme Analysis
- Molecular Cloning Steps and Applications
- PCR and Primer Design
- High Throughput Sequencing Methods
- Sequence Analysis Pipelines
- Phylogenetic Analyses & Alignment Scoring Matrices
- Genome Browsers/Databases
- Literature Searches, Selection, and Interpretation

Course Expectations:
- Check the weekly schedule prior to each meeting: Weekly Lab Schedule
- Keep up with your grades. The OAKS based gradebook will be updated throughout the semester.
- Participate in discussion topics, which will occur in-person and via the discussion board.
- Know that I am available to help. Please reach out via email (mccoyja@cofc.edu).

Grading:
Your final grade will be determined according to the following calculation & scale:

Quizzes: 70%
Final Report: 20%
Final Presentations:10%

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<th>Grade</th>
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<tr>
<td>A</td>
<td>&gt; 93</td>
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<tr>
<td>A-</td>
<td>90-92</td>
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<td>B+</td>
<td>87-89</td>
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<td>83-86</td>
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Spring 2021
Biol312L

Attendance Policy:
Your attendance at live meetings is required. If an emergency situation prevents your attendance, please reach out as soon as you can to receive instructions regarding missed work.

Honor Code and Academic Integrity:
Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved. Incidents where the instructor determines the student’s actions are related more to a
misunderstanding will handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student’s file. Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student’s transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board. Students should be aware that unauthorized collaboration--working together without permission-- is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others’ exams, fabricating data, and giving unauthorized assistance. Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor. Students can find the complete Honor Code and all related processes in the Student Handbook at http://studentaffairs.cofc.edu/honorsystem/studenthandbook/index.php

Accommodations for Students with Disabilities
Any student eligible for and needing accommodations because of a disability is requested to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged. Center for Disability Services/SNAP.

Recording of Classes (via ZOOM)
Class sessions will be recorded via both voice and video recording. By attending and remaining in this class, the student consents to being recorded. Recorded class sessions are for instructional use only and may not be shared with anyone who is not enrolled in the class.