Syllabus for ES295-235: Graduate Research

Fall 2017
Instructor: Danielle Edwards

Designation:	
Catalog Description:	This course is for graduate students o engage in laboratory, field, theoretical, and/or computational research under the supervision of myself and potentially a postdoctoral scholar on a topic related to ongoing research in the lab. It is also intended for those students completing their thesis research. The goal of the course is for students to gain experience as a scientist – i.e. applying knowledge learned in related courses, reading literature, talking with colleagues, attending scientific meetings, etc., in a research setting, increasing students ability to use the scientific method, and gain new practical experience.
Text Books and Other Required Materials:	As determined by the specific project and in consultation with the instructor.
Course Objectives/ Student Learning Outcomes:	Students will become able to • develop a realistic research plan • complete the proposed research plan, or identify how the research plan was unrealistic • maintain notebooks and other materials sufficient to authenticate all research • write a report based on the outcomes of their research plan • present summaries of work undertaken/progress made orally and in written form • make clear, well structured, presentations and progress updates at lab meetings • write a dissertation proposal • undertake unbiased literature reviews • produce an accurately annotated bibliography • write and submit grant proposals and compete successfully in grant competitions • make clear, well structured conference posters and presentations • write drafts of articles and submit good scientific papers to reputable journals • complete dissertation chapters
Program Learning Outcomes:	
Prerequisites by Topic:	As determined by the specific project and in consultation with the instructor.
Course Policies:	Laboratory safety Work in research settings is subject to requirements of federal and state organizations for safety in the workplace. The office of Environmental Health and Safety is responsible for overseeing these regulations at UCM, see http://ehs.ucmerced.edu/. Students will be instructed in basic lab safety when they first start work in the lab. If students have any questions or concerns, they should contact the lab manager and/or the instructor.
Academic Dishonesty Statement:	a. Each student in this course is expected to abide by the University of California, Merced's Academic Honesty Policy. Any work submitted by a student in this course for academic credit will be the student's own work. b. You are encouraged to study together and to discuss information and concepts

Designation:	covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Policy can also be extended to include failure of the course and University disciplinary action. c. During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Disability Statement:	Accommodations for Students with Disabilities: The University of California Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities based on the principles of independent living, accessible universal design and diversity. I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. Students are encouraged to register with Disability Services Center to verify their eligibility for appropriate accommodations.
Topics:	TBD on a case-by-case basis.
Class/laboratory Schedule:	T.B.A. depending on schedules of all enrolled and the instructor
Midterm/Final Exam Schedule:	None
Course Calendar:	TBD on a case-by-case basis.
Professional Component:	See description.
Assessment/Grading Policy:	ES: Satisfactory (>80%) / Unsatisfactory (Students will be asked to establish a schedule at the start of each semester, in addition to a set of goals (in association with with the students committee members) relating to a one or more research question and hypotheses relating to students academic and career goals. This will form the basis of student assessment. Students will be evaluated based on the following criteria: 1. Accomplishments in lab, relative to required time and degree goals Each credit of ES 295 requires 3 hours of work per week, this includes time in the lab doing lab work, reading in prep for research and meetings, and other components of research. Although credits are time-based, assessment is outcome-based; ES295 is intended to help students achieve graduate research goals on semester, annual, and multi-year timescales, but is likely insufficient time alone. The possible maximum % score that can be achieved will be in proportion to the % of the realistic outcomes toward degree goals fulfilled. 2. Quality of work in the lab Evaluation will be based on the care and accuracy with which work is performed, use of proper scientific methodology in planning work and recording and

Designation:	analyzing data, as observed by the instructor in bi-weekly consultations during semester and in a short (1-2 pages) report of work completed, including attainment of research schedule and goals as outlined at the beginning of the semester. 3. Demonstration of your appreciation of biological research and mastery of scientific information in the context of the research conducted in the lab and its place in modern biology Students will be assessed in two ways: [1] in terms of participation in the lab, meetings with the instructor (i.e. asking questions, contributing knowledge), and [2] progress toward degree goal. The level at which students are expected to attain these outcomes will vary depending upon unforeseen circumstances, and overall progress toward degree prior to taking ES 295 in the current semester.
Coordinator:	Danielle Edwards
Contact Information:	Office: SE1 254 Email: dedwards5@ucmerced.edu Phone: (209) 228-2596
Office Hours:	TBD on a case-by-case basis.