

SAMPLE SYLLABI FOR INDEPENDENT RESEARCH COURSES

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Sample 299 Syllabus from a UCI STEM department

Academics (what the quarterly grade comes from, and activities towards degree completion):

- Participate in weekly lab meetings.
- Attend pertinent seminars.
- Stay current with relevant literature, sharing new articles with the lab/PI through appropriate channels.
- Schedule a minimum of three one-on-one meetings with the Principal Investigator (PI) per quarter, keeping them informed about research progress, challenges, and any obstacles.
- Engage in experimental planning and design, skill acquisition, data analysis, and manuscript writing.
- Create figures for manuscripts, as well as prepare and submit fellowship or grant applications.
- Submit abstracts and manuscripts for publication.
- Maintain and update Individual Development Plan (IDP) annually, sharing it with the PI.
- Organize and conduct yearly committee meetings, ensure advancement by the end of the third year, and schedule defense by the end of the fifth year.

LAB NAME Laboratory**Syllabus for 299 units in NAME OF GRAD GROUP**

I am pleased to have you in the LAB NAME Lab at UC Davis! I hope you'll learn a lot about DESCRIPTION OF YOUR RESEARCH, contribute your talents, make new friends, and have fun!

IF YOU HAVE A LAB MANUAL, YOU CAN INCLUDE INFORMATION HERE; OTHERWISE DELETE

It is important to note that you should always feel free to talk to me to clarify anything in the lab. Ultimately, positive experiences will also require active investment in, and refinement of, our one-on-one interactions over time.

This syllabus will be revised quarterly to reflect our ongoing discussions and your progress toward your dissertation. Specifically, we should meet to clarify mutual expectations and plans at the start of every quarter. The prompts below are meant to facilitate this conversation.

How frequently will the student (you) meet 1:1 with the major professor (me) over the next quarter?

- Bi-weekly
- Weekly
- Every other week
- Monthly
- Other: _____

Student's Primary Work Location

- Davis Campus
- Home
- Other: _____

List all the courses you are planning on taking in the upcoming quarter to satisfy the degree requirements:

Other outstanding degree requirements to be fulfilled in the upcoming quarter:

List academic and professional development programs planned for the upcoming quarter:

Goals and Expectations for the upcoming quarter:
Research Projects

What are the research questions that you will be working towards answering in the next quarter? These could include dissertation aims or sub aim, a figure for a paper, etc. What are the approaches that you are currently pursuing or planning to pursue? Are there other approaches that you could try? How long are you willing to keep trying before you drop each of these experiments/projects? What result or deadline will trigger when you begin the next approach?

Acquiring Knowledge

In what areas do you need/want to acquire more knowledge? Do you plan to do more reading in this area? Discuss with specialists? Attend conferences? How much time will you need to set aside (per week, per month, etc.)?

Research Skills

What new skills and expertise are required to achieve the dissertation aims? How will you gain exposure to these skills? How much time will you set aside to develop this skill?

Oral Presentation Projects and Skills

What talks and posters do you plan to present in the upcoming quarter (could be at lab meetings, journal clubs, in-house seminars, and scientific meetings)? Are there any specific presentation skills you need/want to work on in the coming year? What are your plans to develop oral presentation skills (attend workshops, volunteer to give more presentation, get feedback from mentors, colleagues)? What is your time frame to attain these skills?

Writing Projects and Skills

Are there any writing projects that you will be initiating this quarter or continuing from last quarter (Fellowships, manuscripts, grants)? What resources will you use to develop these skills (attend workshop, seek editing assistance, learn how to use reference managing software like EndNote etc.)?

Manuscript and Grant writing

List the stages and sub-steps toward finishing the project (Introduction, methods etc.) Set goals/deadlines for each stage within the writing process.

Time Management

How many hours do you spend per week doing work-related activities? - Is this a good balance to achieve your goals at work and in your personal life? Do you want to increase or decrease this time in the coming quarter? Provide a rough estimate of your time:

A) What % of your time at work was spent on each of the following activities during the past quarter? (List under column A)

B) To reach your goals, how would you like to change the amount of time spent on each of these types of activities: increase, same, or decrease? (List under Column B)

C) What is your goal for % of your time at work spent on each activity during the upcoming quarter? (List under Column C)

| Activities Advancing your Research | A | B | C |
|---|----------|----------|----------|
| Performing research | | | |
| Discussing your research with mentors, collaborators, others | | | |
| Attending seminars | | | |
| Attending conferences | | | |
| Reading in your field (reviews, papers, etc.) | | | |
| Reading to expand your knowledge of other fields | | | |
| Writing fellowships, abstracts, papers | | | |
| Other lab management, lab duties | | | |

Code of Conduct: My laboratory adheres to the UCD Code of Academic Conduct, which states that “Students, faculty, and University administration all have a role in maintaining an honest and secure learning environment at UC Davis.” (https://ossja.ucdavis.edu/code-academic-conduct?utm_source=sja&utm_medium=redirect-page).

Principles of Community: My laboratory adheres to the UC Davis Principles of community, which states that “UC Davis is an institution of learning, teaching, research and public service. UC Davis reflects and is committed to serving the needs of a global society comprising all people and a multiplicity of identities.” (<https://diversity.ucdavis.edu/principles-community>).

Students with Disabilities: UC Davis is committed to ensuring equal educational opportunities for students with disabilities. Students must request academic accommodations prior to or at the beginning of each quarter by visiting the Student Disability Center (160 South Silo) and completing an SDC Accommodation Request Form. The University is not required to provide any academic accommodation that would result in a fundamental alteration of the academic program. Please note that it can take up to two weeks to process accommodation requests, so it is very important to submit the request form early. If classroom or examination accommodations are approved, the student will receive an accommodation letter with instructions regarding notifying instructors of the accommodations authorized.

 Faculty Signature

 Student Signature

Date

Research for Thesis or Dissertation (CMDDB299)

Lab location:

Faculty member:

Course Description: Research, 1 to 12 Units, 3 to 36 hours. Prerequisite(s): graduate standing. Original research in an area selected for the advanced degree. Graded Satisfactory (S) or No Credit (NC). Course is repeatable to meet degree requirement (see your handbook as needed).

Course Requirements:

- Conduct (continue) experimental research to be included your PhD thesis
- Participate in weekly, in-person, lab meetings and/or group meetings to practice communication and presentation skills.
- Participate in individual, bimonthly meetings with Dr. XX to discuss research progress, experimental issues, and ask questions related to your thesis project.
- Submission of the quarterly research report (see below) to practice scientific writing and narrative construction skills.

Expectations:

- Regular attendance in lab to conduct experiments needed for completion of your PhD thesis. Remote work needs to be cleared with the faculty member ahead of time and should be used sparingly.
- Satisfactory progress towards research goals, including planning, experimentation, troubleshooting, generation of experimental materials, preparing figures, summarizing results, and reading the scientific literature related to your field of inquiry.
- Time allocation: ~3 hours per credit hour
 - The UC estimates that each course credit hour will require 3 hours of work; thus, students registering for 12-credit hours of course should allocate ~36 hours to their coursework.
 - Minimally, it is expected that students spend 20 hours per week on their coursework.
 - A large portion of the work for this course will be experimental, requiring you to be present in the lab. Other necessary work, including but not limited to, reading the scientific literature, preparation for individual, lab and/or group meetings, experimental planning, and some data analysis, including preparing figures and writing, may be worked on outside the lab/office and may be considered akin to the studying or 'homework' that you would complete for lecture-based courses.
- Experimental procedures and data of all types are to be fully documented in your lab notebook and backed up locally (to your external hard drive and the cloud).
- Bimonthly individual meetings provide you with regular guidance from the instructor regarding your thesis research and scientific training. These individual meetings are set up on a schedule that works for the student and faculty instructor in 1.5 hour increments every two weeks. Additional meetings may be requested at any time.
- Presentations and participation in lab/group meetings
 - Lab meeting (meets Thursdays from 3:30-5pm):
 - One 25–50-minute presentation to the lab group
 - Participation in all lab meeting discussions
 - Developmental group meeting (meets Fridays from 3:30-5pm):

- One journal club presentation of a scientific paper you choose
 - One 40-50 min research presentation
 - Participation in paper and research discussions
- As part of this course, I will provide you with space to conduct your wet lab/bench work, office space for reading and writing, and as research funding allows access to any needed equipment, supplies, and chemical reagents for your experiments. You are expected to participate in lab upkeep and inventory management, notifying the instructor of any issues.

Quarterly report: Based on numerous student requests for additional experience with and feedback on scientific writing, completion of a quarterly report will be a required part of the 299-course work. It is strongly recommended that students work on the report as the quarter progresses, drafting descriptions of results and editing the document regularly. **This report is due to the instructor by noon on the last day of the quarter.** The minimum requirements for the quarterly report are as follows:

1. The report will be a minimum of 2 pages, not including figures or references.
2. The report will minimally include a results and materials and methods section for experiments/results obtained during the quarter and any associated figures and references. Additional optional components can include, but are not limited to, an Abstract, Introduction, Conclusions, and Future Directions section.
3. This report should be drafted and edited by the student for accuracy, grammatical errors, clarity, and conciseness.
4. Comments from the instructor on your report will be returned to you by the end of the first week of instruction of the next quarter. A meeting can be scheduled to discuss the document as needed.

Grading Basis: Students will earn an S grade based on satisfactory research progress and submission of the quarterly report. Failure to make satisfactory research progress or turn in the report will result in a NC.

Research and research (69 points)
related activities
Quarterly Report (31 points)

Satisfactory (S) = 70-100%
No Credit (NC) ≤ 70%

Academic Integrity: Cheating, fabrication, plagiarism, or facilitating academic dishonesty will not be tolerated in the lab or in your report. Incidents of a breach of academic dishonesty will be dealt with according to the XX policy:

Disability Services: XX is committed to providing equal access to learning opportunities to students with documented disabilities. To ensure access to this class, and your program, please contact the Student Disability Services to engage in a confidential conversation about the process for requesting accommodations in the classroom. More information can be found on their web site. If you are a student registered with Student Disability Services, please ensure you request your quarterly accommodations.

UNIVERSITY OF CALIFORNIA, DAVIS
____299 GRADUATE RESEARCH APPOINTMENT

INTRODUCTION

The Graduate Group in _____ expects that students and faculty complete this research expectations document for 299 units each quarter of the academic year (fall, winter, and spring). Completed documents signed by the faculty sponsor (Major Professor/Principal Investigator) should be submitted via email to _____ no later than the tenth day of instruction.

COURSE DESCRIPTION

- ____299. **Research for graduate students (1-12 units) I, II, III. (S/U grading only)** Individual study of topics in food science under faculty supervision. Consent of instructor. *Graduate-level counterpart of course 199.*

BACKGROUND

It is the responsibility of the student and faculty member to develop a plan that specifically describes the expectations for the 299 course and method of assessment. Agreements detail/outline educational goals, the number of units requested, and also outline the faculty sponsor's mode of instruction, evaluation, and criteria for assigning passing grades. These documents are agreements between faculty and students and serve as written verification of the faculty person's consent to sponsor the student for academic unit credit (dependent upon the student's satisfactory fulfillment of the terms of the agreement). The information collected used as the basis for settlement of any questions that may arise regarding responsibilities of either the student or faculty sponsor. The Graduate Group in Food Science asks students to have a completed agreement on file with the Graduate Coordinator no later than the tenth day of instruction.

UNIT CREDIT & CRNs

Unit credit is awarded at the rate of 1 unit for every 30 hours of work per 10-week academic quarter. Students typically enroll in 1-12 units per quarter for 299 credit.

GRADING

299 units are graded on a Satisfactory/Unsatisfactory basis. Grading criteria should be discussed between the faculty sponsor and student prior to completing the research agreement. It is the student's responsibility to submit all work assignments to their faculty sponsor before the last day of instruction.

ENROLLMENT CHECK LIST

1. Read agreement instructions
2. Complete the page titled, "Students Complete This Section"
3. Meet with your faculty sponsor
 - Review the agreement work plan together
 - The faculty sponsor completes the page titled, "Faculty Complete This Section"
 - Obtain your faculty sponsor's signature on the agreement
4. Be sure student and faculty signatures are provided on the agreement
5. Make a copy of the agreement for your records
6. Return the completed, signed agreement to the BFTV Advising Office via email at BFTVAdvising@ucdavis.edu.
7. Enroll in the course (see below)

ENROLLMENT

- Obtain the Course Registration Number (CRN) from the instructor or the BFTV Advising Office.
 - Enroll via Schedule Builder; after enrolling, if you wish to enroll in more than one unit of credit you will need to return to the Registration Menu, click "Edit" next to Units, then select the appropriate unit value. Select the checkmark to submit changes.
 - The last day to change variable-units is on the 25th day of instruction.
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____ 299 GRADUATE RESEARCH APPOINTMENT

STUDENTS AND FACULTY COMPLETE THIS SECTION:

Academic year: _____

____ Fall ____ Winter ____ Spring

Department affiliation: _____

Faculty Sponsor (Major Professor/Principal Investigator): _____

Student first and last Name: _____

Student ID#: _____

Contact Info: _____
email address

COURSE PLAN:

Number of units requested: _____ (note: it is a university requirement to maintain at least 12 units each quarter of the academic year (fall, winter, and spring quarter))

Total # (minimum) number 299 hours the student will complete this quarter: _____ hours
**30 hrs. of work per 10-week qtr. (or 6-week summer session) = 1-unit academic credit. (*UCD Academic Senate Guidelines*)

Briefly explain work to be undertaken (experiments, data analysis, proposal development, manuscript or thesis/dissertation responsibilities/duties).

GOALS: Elaborate on the projected outcomes of this experience.

MODE OF EVALUATION: Criteria for passing grade.

STUDENT-FACULTY MEETING FREQUENCY:

UNIVERSITY OF CALIFORNIA, DAVIS
____ 299 GRADUATE RESEARCH APPOINTMENT

I have read this form and approve the student's academic work plan as outlined on this agreement. I will evaluate the academic quality of the student's work and verify the number of hours the student has completed in accordance with UCD Academic Senate guidelines for awarding academic unit credit for special study course work.

Faculty Sponsor's Name (printed)

Faculty Sponsor's Signature

Date

I have read this agreement (work plan) and agree to its terms.

Student's Name (printed)

Student's Signature

Date

Graduate Group Coordinator and Chair will retain this form in graduate group files for five years from beginning of current term for possible review by the appropriate college courses committee and the Senate Committee on Courses of Instruction [Davis Division Regulation 532].


