

NEW COURSE PROPOSAL**Courses must be submitted by November 2, 2009, for priority catalog review.**DATE (*Change if modified and redate file with current date*)

15 MARCH 2011; REV 9.21.11; REV 10.11.11

PROGRAM AREA(S)

UNIV

1. Course Information. [Follow accepted catalog format.]**Prefix(es)** (Add additional prefixes if cross-listed) and **Course No.** UNIV 298**Title:** RESEARCH INVESTIGATIONS **Units:** 3

Prerequisites none

Corequisites none

Consent of Instructor Required for Enrollment

Catalog Description (Do not use any symbols): Students enter the process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline. As students approach parts of the larger problem, they will decide what methods and types of disciplinary perspectives are necessary, and will integrate those into a more comprehensive methodology and perspective. Each course is team-taught, connects to areas of current faculty research, contains field research experiences, and incorporates service learning or work with a community partner.

2. Course Attributes:**Grading Scheme:**

x A-F Grades

Credit/No Credit

Optional (Student Choice)

Repeatability:

x Repeatable for a maximum of 6 units

Total Completions Allowed 2

Multiple Enrollment in Same Semester

Course Level Information:

x Undergraduate

Post-Baccalaureate/Credential

Graduate

Mode of Instruction/Components (*Hours per Unit are defaulted*).

	Units	Hours per Unit	Benchmark Enrollment	Graded Component	CS & HEGIS # (Filled in by the Dean)
Lecture		1			
Seminar	3	1	20	Y	
Laboratory		3			
Activity		2			
Field Studies		1			
Indep Study					
Other Blank					

Leave the following hours per week areas blank. The hours per week will be filled out for you.

3 hours seminar per week

hours blank per week

General Education Categories: All courses with GE category notations (including deletions) must be submitted to the GE website: <http://summit.csuci.edu/geapproval>. Upon completion, the GE Committee will forward your documents to the Curriculum Committee for further processing.

A (English Language, Communication, Critical Thinking)

A-1 Oral Communication

A-2 English Writing

x A-3 Critical Thinking

B (Mathematics, Sciences & Technology)

B-1 Physical Sciences

B-2 Life Sciences – Biology

B-3 Mathematics – Mathematics and Applications

B-4 Computers and Information Technology

C (Fine Arts, Literature, Languages & Cultures)

C-1 Art

C-2 Literature Courses

C-3a Language

C-3b Multicultural

D (Social Perspectives)

E (Human Psychological and Physiological Perspectives)

UDIGE/INTD Interdisciplinary

Meets University Writing Requirement

Meets University Language Requirement

American Institutions, Title V Section 40404: Government US Constitution US History

Refer to website, Exec Order 405, for more information: <http://senate.csuci.edu/comm/curriculum/resources.htm>

Service Learning Course (Approval from the Center for Community Engagement must be received before you can request this course attribute).

3. Justification and Requirements for the Course. (Make a brief statement to justify the need for the course)

A. Justification:

UNIV 498 and various Capstone courses provide excellent research opportunities for upper division students. Unfortunately, many of our students are not ready to perform research by the time they are junior or seniors. UNIV 298 is part of a stepladder of courses that will eventually include 198/298/398/498 to build student research skills from early on in the college experience. Funding for development of the stepladder has been provided by the Keck Foundation.

Research shows that students who engage in research projects early in their college careers are more likely to remain in school and graduate with higher GPAs than students who do not. Students from under-represented groups are particularly impacted by involvement in research.

The first sections of UNIV 298 to be offered will be modifications of the so-called Academy Courses that were developed through the support of an outside donor under Ted Lucas. The fully developed courses were never offered due to lack of funding. Because of the Keck Foundation grant, we are now able to offer these courses.

Students in the x98 sequence will use the e-portfolio system (funded by the Title V HSI grant) to upload their coursework. Faculty will assess the outcome with e-rubrics developed in collaboration with CIS and SRSC as part of the regular grading for the course. Faculty teaching in the x98 sequence for the first time will be required to participate in workshops about the e-portfolio system, interdisciplinary pedagogy, and mentoring student research. These courses will therefore serve as a prototype for the new GE assessment system.

B. Degree Requirement:

Requirement for the Major/Minor
Elective for the Major/Minor
x Free Elective

Note: Submit Program Modification if this course changes your program.

4. Learning Objectives. (List in numerical order. You may wish to use the following resource in utilizing measurable verbs: <http://senate.csuci.edu/comm/curriculum/resources.htm>)

Upon completion of the course, the student will be able to:

- Evaluate information and its sources critically. (GE 3.2)
- Write effectively in various forms, such as lab and research reports, research papers, creative nonfiction, and public communications. (GE 4.2)
- Conduct planned investigations, including recording and analyzing data and reaching reasoned conclusions. (GE 5.1)
- Integrate content, ideas, and approaches from various disciplinary perspectives. (GE 1.1)

*General Education Learning Goals: 1. Think clearly, logically, and creatively. 2. Find and critically examine information. 3. Communicate effectively using a variety of formats. 4. Understand the physical universe and its life forms, scientific methodology, and mathematical concepts, and use quantitative reasoning. 5. Cultivate intellect, imagination, sensibility and sensitivity through the study of philosophy, literature, languages, and the arts. 6. Understand social, cultural, political, and economic institutions and their historical backgrounds, as well as human behavior and the principles of social interaction. 7. Integrate ideas and insights from multiple cultural and disciplinary perspectives. 8. Use technology as a tool. (General Education Learning Goals and Outcomes, SP #06-06)

5. Course Content in Outline Form. [Be as brief as possible, but use as much space as necessary]

The content of each section of UNIV 298 will vary from year to year. Course proposals will be solicited from faculty and selected by a subcommittee of the CIS Advisory Committee (currently, this will be Brad Monsma and Kathryn Leonard). Each course will contain the following components:

- Engagement with community partner: students learn first-hand that their knowledge and scholarship impacts and is impacted by the world beyond the campus.
- Integration of multiple perspectives to answer a single question: students experience formulating a response to a question that requires multiply-faceted analysis
- Independent investigation: students begin to work independently on a research problem
- Presentation of results in written form: students will summarize their findings, contextualize results, and identify unresolved issues for future study.

In each course, students will enter the process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline. As students approach parts of the larger problem, they will decide what methods and types of disciplinary perspectives are necessary, and will integrate those into a more comprehensive methodology and perspective. Each course is team-taught, connects to areas of current faculty research, contains field research experiences, and incorporates service learning or work with a community partner.

Does this course content overlap with a course offered in your academic program? **Yes** ☐ **No** ☒

If YES, what course(s) and provide a justification of the overlap. ☐

Does this course content overlap a course offered in another academic area? **Yes** ☐ **No** ☒

If YES, what course(s) and provide a justification of the overlap. ☐

Overlapping courses require Chairs' signatures.

6. Cross-listed Courses (Please note each prefix in item No. 1)

A. List Cross-listed Courses (Signature of Academic Chair(s) of the other academic area(s) is required).

List each cross-listed prefix for the course: May be cross-listed with instructors' disciplines; this will be left to the discretion of instructors and their chairs.

B. Program responsible for staffing: CIS

7. References. [Provide 3 - 5 references]

The texts listed below will provide theoretical and practical guides for students and faculty. Faculty will choose additional course texts relevant to the topics of particular 298 courses.

Augsburg, Tanya. *Becoming Interdisciplinary: An Introduction to Interdisciplinary Studies*. 2nd Ed. Dubuque, IA: Kendall/Hunt, 2006. [This book is accessible to undergraduate readers.]

Mansilla, V., Duraisingh, E., Wolfe, C., et al. "Targeted Assessment Rubric: An Empirically Grounded Rubric for Interdisciplinary Writing." *Journal of Higher Education* 80.3 (2009): 334-353.

Newell, J., Newell, H., Dahm, K., "Rubric Development for Assessment of Undergraduate Research: Evaluating Multidisciplinary Team Projects", *Chemical Engineering Education*, 37 no. 3.

Repko, Allen F. *Interdisciplinary Research: Process and Theory*. Thousand Oaks, CA: Sage, 2008.

8. Tenure Track Faculty Qualified to Teach This Course.

Brad Monsma, Blake Gillespie, Tracylee Clarke, Sean Kelly, Don Rodriguez, Kathryn Leonard, and many others. Faculty will respond to a call for proposals each year and will be selected by a subset of the CIS Advisory

Committee. For AY 2011-12, courses will be taught by faculty on the list above.

9. Requested Effective Date:

First semester offered: Spring 2012

10. New Resources Requested. Yes ☐ No ☐

If YES, list the resources needed.

A. Computer Needs (data processing, audio visual, broadcasting, other equipment, etc.)

☐

B. Library Needs (streaming media, video hosting, databases, exhibit space, etc.)

☐

C. Facility/Space/Transportation Needs

☐

D. Lab Fee Requested (please refer to Dean's Office for additional processing) Yes ☒ No ☐

E. Other

☐

11. Will this new course alter any degree, credential, certificate, or minor in your program? Yes ☐ No ☒

If, YES attach a program update or program modification form for all programs affected.

Priority deadline for New Minors and Programs: October 5, 2009 of preceding year.

Priority deadline for Course Proposals and Modifications: November 2, 2009, of preceding year.

Last day to submit forms to be considered during the current academic year: April 15th.

Kathryn Leonard, Brad Monsma

15 March 2011

Proposer of Course (Type in name. Signatures will be collected after Curriculum approval)

Date

GE Committee response to your request have UNIV298: Research Investigations added to A3: Critical Thinking
Approved on April 6th, 2011

1. Prepare the student to use reasoning of both inductive and deductive types

Students will construct an approach to a problem by integrating tools from multiple disciplines. In each course, data analysis using statistics and some version of the scientific method will require deductive reasoning. Integrating the science with other available information in order to construct a truly interdisciplinary general solution will require inductive reasoning.

2. Focus on the analysis of written, oral, visual and/or symbolic communication

Students will be generating a new approach to a problem. They will need to analyze closely all earlier communication about the problem in order to fully understand the complexity of the problem as well as to ensure their proposed solution is truly new.

3. Prepare the student to assess common fallacies in reasoning

The final product for the course will be a research paper that outlines the problem, past approaches to the problem and strengths and weaknesses thereof, a new solution to (or understanding of) the problem, and support for why that solution or understanding is of value. In order to write a successful paper, students must learn to identify fallacies in their own reasoning and in others'.

4. Address modes of argument, rhetorical perspectives, and the relationship of language to logic

The final paper will present an integrative approach to a difficult problem. As such, it will present and explore various disciplinary ways of knowing, and demonstrate how integration of those knowledge types leads to a deeper and richer understanding of the problem. In supporting the proposed solution or approach, as well as in analyzing the characteristics of each type of knowing, students will meet this outcome.

Approval Sheet

Program/Course: UNIV 298

If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
General Education Chair		
	Signature	Date
Center for International Affairs Director		
	Signature	Date
Center for Integrative Studies Director		
	Signature	Date
Center for Multicultural Engagement Director		
	Signature	Date
Center for Civic Engagement Director		
	Signature	Date
Curriculum Chair		
	Signature	Date
Dean of Faculty		
	Signature	Date