California State University San Marcos • NEW COURSE • FORM C

CHEM 696 (handwritten)

ORIGINATOR'S SECTION:		
1. College: ☐ CHABSS ☐ CoBA ☐ CoEHHS ☒ CSM	**Desired Term and Year of Implementation (e.g., Fall 2008):** Fall 2017	

2. Course is to be considered for G.E.? (If yes, also fill out appropriate GE form*) ☐ Yes ☒ No

3. Course will be a variable-topics (generic) course? ☐ Yes ☒ No
("generic" is a placeholder for topics)

4. Course abbreviation and Number:* CHEM 696

5. Title: *(Titles using jargon, slang, copyrighted names, trade names, or any non-essential punctuation may not be used.)*
Project Research

6. Abbreviated Title for PeopleSoft:
(no more than 25 characters, including spaces)
Project Research

7. Number of Units: 1

8. Catalog Description: *(Not to exceed 80 words; language should conform to catalog copy. Please consult the catalog for models of style and format; include all necessary information regarding consent for enrollment, pre- and/or corequisites, repeated enrollment, crosslisting, as detailed below. Such information does **not** count toward the 80-word limit.)*

Pre-qualifier work *~~~qualifying exam~~~* on project research. Intended for graduate students who are conducting research at or in collaboration with a company. *May be taken for 1-4 units per semester. Credit may be received for up to 12 units.*

9. Why is this course being proposed?

This course is being proposed as part of the new Masters in Chemistry program. CHEM 696 or 697 will be a required course for all students.

10. Mode of Instruction*

For definitions of the Course Classification Numbers:
http://www.csusm.edu/academic_programs/curriculumschedu ling/catalogcurricula/DOCUMENTS/Curricular_Forms_Tab/ Instructional%20Mode%20Conventions.pdf

Type of Instruction	Number of Credit Units	Instructional Mode (Course Classification Number)
Lecture	1-4	S-25
Activity		
Lab		

11. Grading Method:*
☐ Normal (N) *(Allows Letter Grade +/-, and Credit/No Credit)*
☒ Normal Plus Report-in-Progress (NP) *(Allows Letter Grade +/-, Credit/No Credit, and Report-in-Progress)*
☐ Credit/No Credit Only (C)
☐ Credit/No Credit or Report-in-Progress Only (CP)

12. If the (NP) or (CP) grading system was selected, please explain the need for this grade option.
Research is expected to be carried out across multiple semesters, resulting in a proposal to advance to candidacy. Grade will be assigned at that point.

13. Course Requires Consent for Enrollment? ☒ Yes ☐ No

☒ Faculty   ☐ Credential Analyst   ☐ Dean   ☐ Program/Department - Director/Chair

14. Course Can be Taken for Credit More than Once? ☒ Yes ☐ No
If yes, how many times? Up to 12 units

15. Is Course Crosslisted: ☐ Yes ☒ No

If yes, indicate which course _____ and check "yes" in item #22 below.

16. Prerequisite(s): ☐ Yes ☒ No

17. Corequisite(s): ☐ Yes ☒ No

18. Documentation attached:
☐ Syllabus   ☒ Detailed Course Outline

* If Originator is uncertain of this entry, please consult with Program/Department Director/Chair.

19. If this course has been offered as a topic, please enter topic abbreviation, number, and suffix:*

20. How often will this course be offered once established?* To be offered every semester

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PROGRAM DIRECTOR/CHAIR - COLLEGE CURRICULUM COMMITTEE SECTION:
(Mandatory information – all items in this section must be completed.)

21. Does this course fulfill a requirement for any major (i.e., core course or elective for a major, majors in other departments, minors in other departments)? ☒ Yes ☐ No

If yes, please specify:
Elective course in the Masters of Science in Chemistry. Research must be performed through either Chem 696 or 697.

22. Does this course impact other discipline(s)? *(If there is any uncertainty as to whether a particular discipline is affected, check "yes" and obtain signature.)* ☐ Yes ☒ No

If yes, obtain signature(s). Any objections should be stated in writing and attached to this form.

Discipline			
	Signature	Date	_____ Support _____ Oppose

Discipline			
	Signature	Date	_____ Support _____ Oppose

SIGNATURES : (COLLEGE LEVEL) :   **(UNIVERSITY LEVEL)**

COLLEGE LEVEL		UNIVERSITY LEVEL	
J. Trischman	8/4/2016		
1. Originator (please print or type name)	Date	5. UCC Committee Chair	Date
2. Program Director/Chair	8/9/16 Date	6. Vice President for Academic Affairs (or Designee)	Date
3. College Curriculum Committee	12/14/16 Date	7. President (or Designee)	Date
4. College Dean (or Designee)	12/14/16 Date		

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* If Originator is uncertain of this entry, please consult with Program/Department Director/Chair.

Chemistry 696– **Project Research**
PROSPECTIVE COURSE OUTLINE

Course Description: Pre-qualifier work on project research. Intended for graduate students who are conducting research at or in collaboration with a company. *May be taken for 1-4 units per semester. May be repeated for credit up to 12 units.*

Student Learning Outcomes:

Students will:

- Gain deeper knowledge of methods used and develop skills needed to safely and effectively answer a specific research question in a company or K-12 school setting
- Critically analyze concepts and literature in the specific field of study
- Develop and present a sound understanding of the fundamental chemical principles and underlying theories needed to create, analyze, and critically evaluate a solution to a technical problem or an answer to a specific research question

Textbooks: No textbook will be used.

Course Activities: Students will learn and develop their skills in the methodology used in a specific field of study. They will read literature in the field, accumulate relevant references, and discuss their relevance in a written and oral research proposal.

Contact Hours with Advisor (minimum): 1/week
Literature Reading and Analysis (minimum): 1 hr/week/unit
Laboratory/Field/Classroom work (minimum): 3 hr/week/unit

Grading Scheme: Grades of RP will be given for the semesters prior to the qualifier. Evaluation of the work for the entire sequence of Chem 696 courses will be evaluated by the research mentor and the thesis committee, and a grade will be assigned based on a combination to of the oral and written presentations of the work (50% mentor, 50% committee) and the effort in the laboratory or K-12 setting (100% mentor). Specific grading guidelines for all project and thesis work will be developed by the department.

The research mentor may petition for a revision to the grade with the department if he/she feels an unwarranted grade has been awarded.