

# CHE 395 – INDEPENDENT WORK IN CHEMISTRY

Department of Chemistry

University of Kentucky

**PURPOSE:** Independent work in chemistry, CHE 395, is designed to provide opportunities for chemistry majors to develop research projects in collaboration with faculty members and to gain research experience in chemistry.

## PREREQUISITES:

- Declared major in chemistry
- GPA of at least 3.0 in undergraduate chemistry courses
- Junior or senior standing ( $\geq 60$  credit hours)

(Exceptions to these prerequisites must be approved by the Undergraduate Program Committee of the Department of Chemistry.)

**REQUIREMENTS:** The research project must be completed under the supervision of a faculty member of the Department of Chemistry. (Research projects may be performed under the direction of faculty in other departments if a chemistry faculty member agrees to oversee the progress of the student and award the grade. Such arrangements require the approval of the Director of Undergraduate Studies.) It is the responsibility of the student to contact a faculty mentor and arrange the conditions of the research project. Prior to beginning work, a research contract (see attached) must be completed and approved by the Director of Undergraduate Studies. A new research contract must be submitted at the beginning of each semester of registration. Contracts are due on the last day that courses can be added, which is normally the fifth day that classes meet.

**ACADEMIC CREDITS:** CHE 395 is a variable 1-3 credits per semester or summer session and may be repeated to a total of 9 credit hours. Normally, it is taken for 3 credit hours per semester. A maximum of 9 credit hours may be counted towards a B.A. or B.S. degree. CHE 395 may not be taken for credit if the student is also receiving monetary compensation for the same work; however, certain types of financial awards associated with undergraduate research may be accepted with the prior approval of the Director of Undergraduate Studies.

**GRADING POLICIES:** A grade of SI (satisfactory progress in continuing course) is awarded at the end of each semester for which a Progress Report (see below) is turned in unless the total CHE 395 credits earned at the end of the semester is 9. An SI grade is also awarded if the student has turned in a Final Report but has not yet completed the requirement of a Poster Presentation (see below). Letter grades for all semesters of CHE 395 registration are awarded after the requirements for a Final Report and a Poster Presentation have been completed. Grades will be based on evaluations of the student's effort and progress, the laboratory notebook, the reports, and the presentation.

## **STUDENT RESPONSIBILITIES:**

- To select a research mentor from the chemistry faculty before the semester begins and to select and design a research project in cooperation with the mentor
- To discuss with the faculty mentor the number of hours of work per week per credit hour that will be required and the relative importance of laboratory work, required reports, and any subjective factors on the final grade
- To prepare a brief progress report at the end of each semester, except for the final semester of registration in CHE 395 with that mentor
- To prepare a final report of the research completed in CHE 395 at the end of the final semester
- To prepare and present a poster presentation of the completed research or, if this is not possible, to make an oral presentation at one of the Divisional seminars of the Department of Chemistry

## **FACULTY RESPONSIBILITIES:**

- To provide the CHE 395 student with a challenging, but feasible, research project that can be completed, or on which substantial progress can be made, within the time the student expects to register for CHE 395
- To discuss with the student the number of hours of work per week per credit hour that will be required and the relative importance of laboratory work, required reports, and any subjective factors on the final grade
- To oversee the student's research progress
- To review the student's Progress Report at the end of each semester
- To assign the course grade each semester

## **REQUIRED REPORTS:**

- Brief Progress Reports (usually about 3 pages in length)
  - Standard cover sheet (see attached)
  - Description of work performed during the semester
- Final Report
  - Referenced report in the style of an article in a journal appropriate to the area of the research project
- Poster Presentation
  - Presentation in the Department's undergraduate poster competition, which is typically held late in the spring semester (Exceptions to this requirement may be granted by the Director of Undergraduate Studies, but all CHE 395 students are required to present their work either orally or in poster format in a formal session.)

# CHE 395 Research Contract

**Department of Chemistry**

**University of Kentucky**

Prior to each semester of research, this form should be completed by the student and the Chemistry faculty member who will supervise the student's research. After completion, it should be submitted to the Director of Undergraduate Studies of the Department of Chemistry for approval.

Student's Name \_\_\_\_\_ UK ID # \_\_\_\_\_

Campus Address \_\_\_\_\_

Telephone Number \_\_\_\_\_ E-mail address \_\_\_\_\_

Faculty Mentor \_\_\_\_\_ Telephone Number \_\_\_\_\_

Campus Address \_\_\_\_\_ E-mail address \_\_\_\_\_

Number of CHE 395 Credit Hours \_\_\_\_\_ Fall \_\_\_ Spring \_\_\_ Summer \_\_\_ 200\_\_

Number of CHE 395 Credit Hours earned previously \_\_\_\_\_

List prior course work in chemistry and grades received (underline current courses)

## CHE 395 Requirements:

- Research Contract and Progress Report for each semester of registration
- Final Report in style of journal article at end of final semester of registration ( $\leq 9$  hours total)
- Presentation of results in Chemistry Department Poster Session (unless alternative arrangements made with Director of Undergraduate Studies)

## SIGNATURES

Student \_\_\_\_\_ Date \_\_\_\_\_

Faculty Mentor \_\_\_\_\_ Date \_\_\_\_\_

Director of Undergraduate Studies \_\_\_\_\_ Date \_\_\_\_\_

General Description of the Research Project (completed by student and faculty member):

Methods of Performance Evaluation (completed by faculty member):

**CHE 395 REPORT COVER SHEET**

Student Name \_\_\_\_\_ Semester \_\_\_\_\_

Faculty Mentor \_\_\_\_\_ CHE 395 Hours This Semester \_\_\_\_\_

Progress or Final Report ? \_\_\_\_\_ CHE 395 Hours Earned Previously \_\_\_\_\_

RESEARCH PROGRESS DURING THIS PAST SEMESTER HAS BEEN:

Satisfactory \_\_\_\_\_ Unsatisfactory \_\_\_\_\_

Comments by faculty mentor:

\_\_\_\_\_  
Faculty Mentor

\_\_\_\_\_  
Date

Comments by student:

\_\_\_\_\_  
Student

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Undergraduate Studies

\_\_\_\_\_  
Date