Administrative Unit: Science

Course Prefix and Number: CHEM 490

Course Title: Senior Seminar

Number of: Credit Hours: 3  Lecture Hours: 3  Laboratory Hours: 0

Catalog Description: A seminar course required as a culminating experience prior to graduation for all seniors majoring in science. Students do library research project(s) in their major field. A grade of C or better is required. Prerequisites: Senior standing, ENGL 112, CHEM 395; a minimum of 26 hours of CHEM coursework and instructor’s permission. Offered Fall and Spring.

Prerequisite(s)/Corequisite(s): Senior standing, ENGL 112, CHEM 395; a minimum of 26 hours of CHEM coursework and instructor's permission.

Text(s): Current scientific literature.

Course Objectives:
- To access and effectively use primary scientific literature.
- To critically analyze published literature.
- To assemble data, summarize techniques and interpret outcomes.
- To present scientific information to faculty and peers.
- To comprehensively understand science consistent with the field of study.

Measurable Learning Outcomes
- Conduct a literature search on a specific topic.
- Discriminate between primary and secondary literature.
- Construct a bibliography using appropriate sources and format.
- Interpret data using scientific methodology.
- Integrate the above activities into an effective written report on an appropriate topic.
- Describe and interpret a body of research in a seminar for faculty and peers.

Topical Outline (major areas of coverage):
- Definition of primary literature.
- Accessing literature.
- Critical analysis of scientific papers.
- Formats for written and oral reports.
- Student preparation of seminars and papers.
- Administration of Academic Profile.
- Administration of Major Field Test.

Recommended maximum class size for this course: 10
Library Resources: Online databases are available at http://www.ccis.edu/offices/library/resources.asp. You may access them from off-campus using your eServices login and password when prompted.

Prepared by:  Julie Estabrooks, Ph.D.

Name  Signature

Date:  March 20, 2006

NOTE: The intention of the master syllabus is to provide an outline of the contents of this course, as specified by the faculty of Columbia College, regardless of who teaches the course, when it is taught or where it is taught. Faculty members teaching this course for Columbia College are expected to facilitate learning pursuant to the course objectives and cover the subjects listed in the topical outline. However, instructors are also encouraged to cover additional topics of interest so long as those topics are relevant to the course’s subject. The master syllabus is, therefore, prescriptive in nature but also allows for a diversity of individual approaches to course material.

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