

University of Arkansas – Fort Smith
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General Syllabus

CHEM 448V Independent Study in Chemistry

Credit Hours: 1-3 Variable

Independent Study Hours: 1-3 Variable

Prerequisite: chemistry major and consent of department head

Effective: 2018~2019

I. Course Information

A. Catalog Description

Current advanced topics in chemistry are explored by students through faculty-guided independent study. Topics are selected based on faculty research specialization and student interest.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

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

1. Successfully and efficiently work in an area of specialized chemistry research.
2. Use appropriate techniques of analysis and evaluation to produce scientifically meritorious work.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will identify a problem or issue and will research, evaluate, and compare information from varying sources in order to evaluate authority, accuracy, recency, and bias relevant to the problems/issues. Students will generate solutions/analysis of problems/issues evaluated and will assess and justify the solutions and/or analysis.

Communication Skills (written and oral)

Students will communicate proficiently. Students will compose coherent documents appropriate to the intended audience and effectively communicate orally in a public setting.

Ethical Decision Making

Students will model ethical decision-making processes. Students will identify ethical dilemmas and affected parties and will apply ethical frameworks to resolve a variety of ethical dilemmas.

Global & Cultural Perspectives

Students will reflect upon cultural differences and their implications for interacting with people from cultures other than their own. Students will demonstrate understanding or application of their discipline in a global environment and will demonstrate how their discipline impacts or is impacted by different cultures.

III. Major Course Topics

Course topics are dependent on each offering because faculty with different specialties will teach the course with interested students. The faculty member responsible for the course will determine the topic and points of emphasis of the given offering.