

University of Arkansas – Fort Smith
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General Syllabus

CHEM 32063 Chemical Literature and Seminar

Credit Hours: 3

Lecture Hours: 3

Laboratory Hours: 0

Prerequisite: CHEM 31763 Organic Chemistry II

Effective: 2026

I. Course Information

A. Catalog Description

A course in the techniques and tools for effective searching the literature of chemistry, biochemistry, chemical engineering, and related fields. Uses modern search methods to abstract information from the body of chemical literature. Students will present their findings in a variety of different methods such as written reports, oral seminars, and poster presentations.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

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

1. Evaluate sources of chemical information.
2. Assess the proper source(s) from which specific information can be obtained.
3. Use library resources to find answers to specific chemical questions.
4. Apply knowledge of on-line chemical information sources to obtain information.
5. Present their finding in a variety of different formats such as papers, posters, and PowerPoint® presentations.

B. University Learning Outcomes

Chemical Literature 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

- A. UAFS Library Resources
- B. Reference Handbooks
- C. Science Databases
- D. Web resources/Web Searches
- E. Spectral Collections
- F. How to generate presentations