

University of Arkansas – Fort Smith
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General Syllabus

CHEM 3421 Biochemistry II Laboratory

Credit Hours: 1

Lecture Hours: 0

Laboratory Hours: 3

Prerequisite: CHEM 3401 Biochemistry Laboratory I

Prerequisite or corequisite: CHEM 3423 Biochemistry II

Effective: 2018~2019

I. Course Information

A. Catalog Description

A continuation of the study of laboratory and analysis techniques used in biochemistry.

II. Student Learning Outcomes

A. Subject Matter

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

1. Analyze and discuss the theory behind biochemical techniques addressed in the course.
2. Perform addressed biochemical techniques with proficiency.
3. Evaluate and record information into a laboratory notebook utilizing appropriate procedures and guidelines.
4. Analyze and discuss the implications of data obtained from the biochemical techniques used.
5. Know and follow appropriate safety precautions associated with general lab procedures and the specific lab techniques used.

B. University Learning Outcomes

Biochemistry II Laboratory 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. Laboratory Notebooks and Record Keeping
- B. Interpretation of Laboratory Data
- C. Theory of Biochemical Techniques
- D. Biochemical Laboratory Procedures