

Assessment: Assessment Plan

Degree Program - AS - Biochemistry (BS)

CIP Code: 26.0202.00

Disciplinary Accrediting Body: American Society for Biochemistry and Molecular Biology (ASBMB)

Next Accrediting Agency Review: 2023

Degree Program Coordinator: Bill Poirier

Degree Program Coordinator Email: bill.poirier@ttu.edu

Program Purpose Statement: The B.S. in biochemistry program will prepare an undergraduate student for graduate study in biochemistry and related disciplines, for entry into medical or dental school, or for employment in industrial or governmental laboratories in which graduate training is not required. A biology minor may be earned by completing one biology course in addition to those specifically required for the B.S. biochemistry degree (see the biological sciences undergraduate advisor for specific requirement.) This additional biology course may be selected from the advanced electives needed to fulfill the B.S. biochemistry degree.

Modality: Face-to-Face

Student Learning Outcome: proficiency in laboratory skills

Graduates from this program will demonstrate proficiency in laboratory skills (including knowledge of safety and ethics).

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 06/15/2015

Assessment Methods

Capstone Assignment/Project - The assessment will be based on a capstone laboratory-based course, which will offer a variety of assessment methods. The assessment methods in the capstone laboratory course will evaluate laboratory skills using a technical written report of a laboratory project. This course is under development by the undergraduate curriculum committee and is scheduled to start fall 2017. More details can be found in the related document. (Active)

Criterion: To be determined

Related Documents:

[Revision of Degree Assessments](#)

Capstone Assignment/Project - The assessment will be based on a capstone laboratory-based course, which will offer a variety of assessment methods. The assessment methods in the capstone laboratory course will evaluate safe laboratory skills using a written report documenting a full safety analysis prior to commencing the laboratory based project. This course is under development by the undergraduate curriculum committee and is scheduled to start fall 2017. More details can be found in the related document. (Active)

Criterion: To be determined

Capstone Assignment/Project - The assessment will be based on a capstone laboratory-based course, which will offer a variety of assessment methods. The assessment methods in the capstone laboratory course will be used evaluate the ability to utilize appropriate analytical characterization. This course is under development by the undergraduate curriculum committee and is scheduled to start fall 2017. More details can be found in the related document. (Active)

Criterion: To be determined

Degree Program - AS - Biochemistry (BS)

Student Learning Outcome: Strong Content Knowledge

Graduates from this program will demonstrate strong content knowledge in biochemistry, focusing on information flow, structure, function, and mechanism within overarching biological contexts. The curriculum also includes experiences that develop student skills essential for their effective performance as scientific professionals. Development of competence in other critical skills necessary for a professional chemist, include: Problem Solving Skills, Chemical Literature and Information Management Skills, Laboratory Safety Skills, Communication Skills, Team Skills, and Ethics. The assessments are performed within individual courses and through capstone courses and labs, as described in other sections of this document.

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 08/01/2017

Assessment Methods

Capstone Assignment/Project - The assessment will be based on a capstone classroom course, which will offer a variety of assessment methods. The assessment methods in the capstone course will evaluate communication via a technical oral presentation. This course is under development by the undergraduate curriculum committee and is scheduled to start fall 2017. More details can be found in the related document.. (Active)

Criterion: To be determined

Capstone Assignment/Project - The assessment will be based on a capstone classroom course, which will offer a variety of assessment methods. The assessment methods in the capstone course will evaluate communication literacy using a technical writing project. This course is under development by the undergraduate curriculum committee and is scheduled to start fall 2017. (Active)

Criterion: To be determined

Capstone Assignment/Project - Global competency will be assessed based on a capstone classroom course, which will offer a variety of assessment methods. This course is under development by the undergraduate curriculum committee and is scheduled to start fall 2017. (Active)

Criterion: To be determined

Exam - Students will demonstrate mastery of subject content and problem solving ability in the program. Global content assessment will be undertaken by nationally normalized examination in General, Analytical, Organic, Physical and Inorganic Chemistry that are available from the American Chemical Society which are administered in the appropriate courses. (Active)

Student Learning Outcome: Marketability

Graduates from this program will be able to obtain positions in industry, sales, professional schools, or any other areas for which biochemistry is an essential knowledge base.

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 08/01/2017

Assessment Methods

The marketability of the student will be assessed mainly by an exit interview. A standardized interview survey is under development and is tentatively scheduled to be administered using a web based platform starting in fall 2016. More details can be found in the related document. (Active)

Criterion: To be determined

Degree Program - AS - Biochemistry (BS)

Capstone Assignment/Project - The long term marketability of the student will be assessed by a three year post graduation survey. A standardized survey is under development and is tentatively scheduled to be administered using a web based platform starting in fall 2017. More details can be found in the related document. (Active)

Criterion: To be determined