



ESF Minor Curriculum Change Proposal Form

Committee on Curriculum - ESF Faculty Governance
Office of Instruction & Graduate Studies

Date: April 4, 2025
Department: Chemistry
Curriculum Title: Biochemistry

For Minor Changes in existing curriculum (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> revised courses | <input type="checkbox"/> change in total cr. hrs. |
| <input type="checkbox"/> new course sequence | <input checked="" type="checkbox"/> new program objectives* |
| <input checked="" type="checkbox"/> new courses added | <input checked="" type="checkbox"/> new accreditation/assessment requirements |

*See SUNY Guidelines

1. Rationale for Change

Please provide an explanatory narrative outlining the rationale for the change, and the impacts of this change on the learning outcomes of the curriculum:

The proposed changes modify the biochemistry curriculum to align it with the accreditation requirements laid out by the American Society for Biochemistry and Molecular Biology (ASBMB), paving the way for application for accreditation in the future.

ASBMB-accredited programs include education in core biochemistry concepts as defined by program learning objectives, experiential learning both in the classroom and in independent research or internship opportunities, both written and oral communication of biochemistry information in technical and general venues, and training in best practices in safety and ethics. The proposed curricular changes add program learning objectives based on the ASBMB core concepts, require additional laboratory experience, and also provide students with more directed electives unique to ESF.

The core biochemistry courses (Biochemistry I, Biochemistry Laboratory, and Biochemistry II, FCH 430, 431, and 432 respectively) assess the students' grasp of core concepts, data analysis, and communication. Safety and ethics are covered in the Biochemistry Laboratory (FCH 431).

2. Institutional Impact:

Changes from existing condition:

Anticipated Enrollment or Enrollment Change: We expect greater enrollment following modernization of the curriculum and its potential accreditation by an external body.

Faculty or Staffing Requirements: 0

Technology, Computing Resources, and Classroom Resource Demands: 0

Change in Accreditation Requirements: 0

Changes to Assessment Plan:

Program learning objectives have been revised in accordance with the learning objectives defined by the American Society for Biochemistry and Molecular Biology. These learning objectives will be assessed in three required biochemistry courses as described below.

New program learning objectives: Students earning this degree will be able to

- Explain how macromolecular structure determines macromolecular function and regulation (Assessed in FCH 430, Biochemistry I)
- explain and apply the dynamic and interactive aspects of biological information storage and transfer (Assessed in FCH 430, Biochemistry I)
- Describe the requirements for and transformations of energy in biological systems (Assessed in FCH 432, Biochemistry II)
- Demonstrate the ability to measure, analyze, and communicate biochemical data (Assessed in FCH 431 [Biochemistry laboratory] and FCH 432 [Biochemistry II])

Library Resource Requirements: 0

3. Catalog Narrative:

Please attach to this proposal form a copy of the current catalog description in MS Word format, with revisions shown in "track changes".

4. Curriculum Transition Plan:

Please provide a narrative description of your plan for transitioning from your existing curriculum to the proposed new curriculum. Please provide specific dates for implementing curriculum changes, overlap periods where old and new curricula may exist simultaneously, and final phase out of old curricula. Please also include impacts and mitigating considerations for transfer students and students in mid-program during implementation, impacts of changes in semester delivery of existing courses, addition of new courses within a particular semester, etc.

Students who matriculated in Fall 2025 or earlier (prior to approval of this curriculum change) have the option to meet the requirements for the previously published Biochemistry curriculum or these revised requirements. Students who matriculate in Spring 2026 or later will be required to meet the revised requirements.

5. Approval Signatures:

Signatures below, or attached letters, indicate that the affected departments, programs or units have been notified of this proposal and have had an opportunity to assess the impact of the proposal on their respective units. If departments did not respond to your notification, you may wish to document your effort to contact them.

Affected Academic Department(s) or Program(s):

Environmental Biology
Department/Program 1

Stephen Teale

Digitally signed by Stephen Teale
Date: 2025.10.09 16:38:43 -04'00'

Chair Signature

Stephen Teale

Name of Chair/Program Director

Date

Or letter attached ☐

Department/Program 2

Chair Signature

Name of Chair/Program Director

Date

Or letter attached ☐

Department/Program 3

Chair Signature

Name of Chair/Program Director

Date

Or letter attached ☐

[If more/less than three Departments/Programs, please add/delete lines as appropriate.]

Other Units

Library Director

Date

Or letter attached ☐

Computing and Network Services
Date _____ Or letter attached ☐

Physical Plant
Date _____ Or letter attached ☐

Forest Properties
Date _____ Or letter attached ☐

Environmental Health and Safety
Date _____ Or letter attached ☐

Admissions
Date _____ Or letter attached ☐

Other _____
Date _____ Or letter attached ☐

Other _____
Date _____ Or letter attached ☐

Office of the Provost

Signature below, or attached letter, indicates that the Provost either a) agrees that there is no need for additional resources from the College; or b) indicates willingness to provide the extra support to the department.

Provost Signature
Date _____ Or letter attached ☐

6. Proposer Information and Department Chair Affirmation:

Contact Person:

Name: Julia Maresca

Department: Chemistry

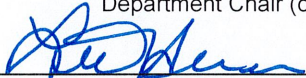
Email: jamaresc@esf.edu

Phone: 470-4832

This proposal has been reviewed and approved by the sponsoring Department. Affected departments have been notified and given the opportunity to provide feedback. Department resources are or will be made available to support this curriculum revision, or a plan is in place to meet the resource needs as identified in the Institutional Impacts section of this proposal (see Section 2, above) .

Name: LEE NEWMAN
Department Chair (or designated curriculum representative)

Date: 15 Oct 2025

Signature: 
Department Chair (or designated curriculum representative)

Or letter attached ☐

7. Final Approvals:

Curriculum Committee

Date

Faculty Governance

Date

Provost

Date