



ESF Minor Curriculum Change Proposal Form

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

Date: 2023.12.18
Department: Chemical Engineering
Curriculum Title: Paper Science Minor

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

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

Changes reflect the changes that were made in the paper engineering courses (course numbers, prefixes, etc.) and electives offered.

2. Institutional Impact:

Changes from existing condition:

Anticipated Enrollment or Enrollment Change: 5

Faculty or Staffing Requirements: no additional requirements.

Technology, Computing Resources, and Classroom Resource Demands: no additional requirements

Change in Accreditation Requirements: N/A

Changes to Assessment Plan: none

Library Resource Requirements: no additional requirements

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".

Coordinator: Dr. Gary Scott

The paper and related industries (including pulp, mineral, chemical and machinery suppliers) continually seek knowledgeable and skilled employees. Each year, companies hire numerous graduates of chemical, mechanical and environmental engineering programs as well as chemists and other environmental professionals in addition to paper science and engineering graduates. Salaries for new hires are among the highest for all fields of study at the bachelor's degree level. This minor gives students a basic understanding of the paper industry that will allow them to apply their major field of study to this growth industry.

The paper science minor is available to all ESF undergraduate students (**except students in paper engineering programs**) who maintain a minimum cumulative grade point average of 2.70. Waivers to prerequisites of courses will be favorably considered in increase access to the minor across campus. Fifteen credit hours in paper science courses are required.

Required Courses (4 credits):

- PSE 200 Introduction to Papermaking (3)
- PSE 202 Pulp and Paper Laboratory Skills (1)

Elective Courses (11 credits):

- ECH 202 Principles of Mass and Energy Balance (3)
- PSE 201 The Art and Early History of Papermaking (3)
- PSE 223 Introduction to Lignocellulosics (4)
- PSE 304 Professional Internship (1)
- PSE 305 Professional Co-op (1)
- PSE 306 Professional Synthesis (1)
- PSE 350 Fiber Processing (3)
- PSE 436 Pulp and Paper Unit Operations (3)
- PSE 437 Equipment Troubleshooting and Maintenance (3)
- PSE 438 Biorenewable fibrous and nonfibrous products (3)
- PSE 450 Pulping and Bleaching Processes (3)
- PSE 456 Management in Industry (3)
- PSE 462 Papermaking Processes I (3)
- PSE 465 Fiber and Paper Properties (4)
- PSE 466 Paper Pigment and Barrier Coating (3)
- PSE 466 Paper Coating and Converting (2);
- PSE 467 Papermaking Wet End Chemistry (3)
- PSE 469 Functional and Nano Additives (3)
- PSE 478 Papermaking Processes II (2)
- PSE 481 Engineering Design (3)
- PSE 552 Fiber Materials Recycling and Processing (3)
- RMS 200 Renewable Materials and Composites from Lignocellulosics (3)
- RMS 335 Transport Properties of Materials (3)
- RMS 388 Wood and Fiber Identification Laboratory (2)
- RMS 465 Renewable Materials and Surfaces: Testing (3)

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 will be able to complete either the new curriculum or the one in their catalog of record.


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):

Chemical Engineering
Department/Program 1

Bandaru Ramarao
Name of Chair/Program Director


Chair Signature

12/18/2023
Date

Or letter attached ☐

[If more/ess 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: _____ Shijie Liu _____ Department Chemical Engineering
Email: _____ sliu@esf.edu _____ Phone: _____ 315-470-6501 _____

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: Bandaru V Ramarao _____ Date: 12/18/2023
Department Chair (or designated curriculum representative)

Signature:  _____ Or letter attached ☐
Department Chair (or designated curriculum representative)

7. Final Approvals:

Curriculum Committee

Date

Faculty Governance

Date

Provost

Date