

NOT FOR USE FOR CURRICULAR COURSE CHANGES
REQUEST FOR PROGRAM IMPROVEMENTS

NOTE: Changes to programs may require course changes, which must be processed electronically. Any questions should be directed to Associate Provost David Reinhold at 7-4564 or david.reinhold@wmich.edu

DEPARTMENT: CHP
PROPOSED EFFECTIVE FALL YEAR: 2021


COLLEGE: CEAS

PROPOSED IMPROVEMENTS: *Academic Program Proposed Improvements*

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|---|---|--|
| <input type="checkbox"/> New degree* | <input type="checkbox"/> New minor* | <input type="checkbox"/> Admission requirements |
| <input type="checkbox"/> New major* | <input type="checkbox"/> Deletion* | <input type="checkbox"/> Graduation requirements |
| <input type="checkbox"/> New curriculum* | <input type="checkbox"/> Revised major | <input type="checkbox"/> Change in Title |
| <input type="checkbox"/> New concentration* | <input checked="" type="checkbox"/> Revised minor | <input type="checkbox"/> Transfer |
| <input type="checkbox"/> New certificate* | | |

Other (explain**) **** Other:**

Title of degree, curriculum, major, minor, concentration, or certificate: Chemical Engineering Minor, CHEGN

Chair, Department Curriculum Committee: 	Date 09/16/2020
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CHECKLIST FOR DEPARTMENT CHAIRS/DIRECTORS

- For new programs and other changes that have resource implications, the dean has been consulted.
- When appropriate, letters of support from department faculty are attached.
- When appropriate, letters of support from other departments in the same college are attached.
- When appropriate, letters of support from other college deans, whose programs/courses may be affected by the change, are attached.
- The proposal has been reviewed by HIGE for possible implications for international student enrollment.
- The proposal is consistent with the departmental assessment plan, and identifies measurable learning outcomes for assessment.
- Detailed resource plan is attached where appropriate.
- All questions attached have been completed and supporting documents are attached.
- The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair/Director:	Date
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CHECKLIST FOR COLLEGE CURRICULUM COMMITTEE

- The academic quality of the proposal and the faculty involved has been reviewed.
- Detailed resource plan is attached where appropriate.
- Consistency between the proposal and the relevant catalog language has been confirmed.
- The proposal has been reviewed for effect on students transferring from Michigan community colleges. Detailed information on transfer articulation must be included with undergraduate proposals.
- Consistency between the proposal and the College and department assessment plans has been confirmed.
- Consistency between the proposal and the College and department strategic plans has been confirmed.
- All questions attached have been completed and supporting documents are attached.
- The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair, College Curriculum Committee:	Date
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1. Explain briefly and clearly the proposed improvement:

Revise the Prerequisites course list of the Chemical Engineering minor to reflect changes in the Chemistry Department's Physical Chemistry offerings, specifically renaming CHEM 4300 "Physical Chemistry I" to "Chemical Thermodynamics and Kinetics"

2. Rationale. Give your reason(s) for the proposed improvement.

The CHEM 4300 course title will have been changed as a result of course re-structuring in Chemistry.

3. Effect on other colleges, departments, or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

This change is being proposed by Chemistry, but with the approval of the Chemical and Paper Engineering Department. Chemistry is also consulting with Geological and Environmental Sciences and English, which are both also affected.

4. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.

There will be no effect on the Chemical and Paper Engineering Department's programs.

5. Alignment with college's and department's strategic plan, mission, and vision.

These proposed changes are consistent with the Chemistry Department's strategic assessment goal of acting on feedback regarding curricular structure, and with the College of Arts and Sciences goal 4.1.c, to develop and promote deliberate curricular pathways.

6. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students' time.

Chemistry's proposed course changes will not have any effect on Chemical Engineering minors.

7. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

The student audience and market demand will be unaffected by this change.

8. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. If proposing a new program, include a letter and/or email of support from the university libraries affirming that the library resource issues have been reviewed. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

There will be no effect on the Chemical and Paper Engineering Department's resources, as the modified course is already being taught by the Chemistry Department.

9. List the learning outcomes for the revised or proposed major, minor, or concentration. The department will use these outcomes for future assessments of the program.

No change

10. Describe how this change is a response to assessment outcomes that are part of a department or college assessment plan or informal assessment activities.

The proposed change in the Chemistry course was driven by two factors: analysis of the topical dependence between the two semesters of the Physical core courses, and the need to improve scheduling flexibility for the Chemistry and Chemical Engineering undergraduate programs.

11. (Undergraduate proposals only) Describe in detail how this change affects transfer articulation for Michigan community colleges. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community

CURRENT CATALOG COPY

Requirements

A minor in Chemical Engineering may be earned by completing the following 20 semester hours of Chemical Engineering courses:

- [CHEG 1010 - Introduction to Chemical Engineering](#) **Credits: 3 hours**
- [CHEG 2810 - Data Acquisition and Handling](#) **Credits: 1 hour**
- [CHEG 2960 - Material and Energy Balance](#) **Credits: 4 hours**
- [CHEG 3110 - Unit Operations in Chemical Engineering I](#) **Credits: 3 hours**
- [CHEG 3120 - Unit Operations in Chemical Engineering II](#) **Credits: 3 hours**
- [CHEG 3300 - Mass Transfer](#) **Credits: 3 hours**
- [CHEG 4100 - Chemical Reaction Engineering](#)

Prerequisites

In addition, students would complete the following as prerequisites for CHEG 4100.

- [CHEM 1120 - General Chemistry II](#) **Credits: 3 hours**
- [CHEM 1130 - General Chemistry Laboratory II](#) **Credits: 1 hour**
- [CHEM 4300 - Physical Chemistry I](#) **Credits: 3 hours**

Additional Information

The minor is most suitable for other engineering graduates, as well as physics and chemistry graduates, as they will have most of the prerequisites for the CHEG courses required for the minor.