FULL PROPOSAL: Substantive Change(s) to a Course

Title of proposal (must begin with department abbreviation): ENIE 4580 Catalog Course Description Revision

Place an X next to the ones that apply:

☐	Significant modification of course content by the addition or removal of topics embodied in the original course proposal.
☐	Changing the course number by multiples of 1000 (e.g., 1230 to 2230 or 4320 to 3320)
☐	Changing the credit hours awarded for the course
☒	Changing course prerequisites or corequisites
☐	Creating a new course

Effective date: Fall 2015

Contact information:

Spokesperson Name:Cecelia M. Wigal	Department:College of Engr & Comp Sci
Building:EMCS	Office Number:4015
Phone Extension:4015	Email:cecelia-wigal@utc.edu

Faculty of the originating department approved this proposal on   (date)
by a vote of 3 aye votes; 0 nay votes; 0 abstentions; 0 eligible voting members absent

1. Description of proposed changes
   he following changes are a result of ensuring prerequisites and corequisites accurately reflect the needs for student knowledge for the courses in the Industrial Engineering concentration of the Engineering (BSE) program major. This change will allow the course to be available to non BSE: IE majors and thus allow for a larger number of students to take the courses. It will also allow the course to have more flexibility in offering times and will allow students more flexibility in their scheduling.

   Economic and Pedagogical Consequences
   There are no economic consequences from this proposal. Pedagogically the there are no consequences except that the proposed changes ensure that all students have the necessary pre and corequisites to be successful in each course. No changes in course structure or delivery is necessary.

2. Rationale for requested change
   Include any information and/or data which is being used to justify the change(s)
   The changes are a result of ensuring prerequisites and corequisites accurately reflect the needs for student knowledge for the courses in the Industrial Engineering concentration of the Engineering (BSE) program major.

   Justification for changes:

Prerequisites: This course is applicable to engineering majors other than BSE: Industrial. Having completed a course in programming or engineering computations that itself requires a math level of differential equations is a sufficient prerequisite.

3. Current course as listed in the Catalog

Prefix: ENIE	Number: 4580
Title: Facilities Planning	Credit Hours: 3
Prerequisites: ENIE 3540 or ETEM 3540	Co-Requisites:
Cross-listed courses:	

4. Current course description as listed in the Catalog
   ENIE 4580 - Facilities Planning
(3) Credit Hours

Methods, techniques, and computer algorithms for planning facility layout, facility location, and activities and equipment planning are presented. Scheduling strategies that affect facility layout including push vs. pull operation, batch sizes, and dispatching rules are also discussed. Cellular technology, material handling, facility planning data collection methods, process flow-charting, and simulation of manufacturing facility layout are demonstrated. Fall semester. Lecture 3 hours. Prerequisite: ENIE 3540 or ETEM 3540 with a minimum grade of C or department head approval. Laboratory/studio course fee will be assessed. Differential course fee will be assessed.

5. Proposed new course as it will be listed in the Catalog

Prefix: ENIE4580	Number: 4580
Title: Facilities Planning	Credit Hours: 3
Prerequisites: ENEE 2250 or ENGR 2240	Co-Requisites:
Cross-listed courses:	

6. Proposed new description and program requirements to be listed in the Catalog (catalog copy)
   ENIE 4580 - Facilities Planning
   (3) Credit Hours

   Methods, techniques, and computer algorithms for planning facility layout, facility location, and activities and equipment planning are presented. Scheduling strategies that affect facility layout including push vs. pull operation, batch sizes, and dispatching rules are also discussed. Cellular technology, material handling, facility planning data collection methods, process flow-charting, and simulation of manufacturing facility layout are demonstrated. Fall semester. Lecture 3 hours. Prerequisite: ENEE 2250 or ENGR 2240 with minimum grades of C or department head approval. Laboratory/studio course fee will be assessed. Differential course fee will be assessed.

7. What is the instructional method for the course (Please select one)?
   Lecture - Face-to-face Classroom Instruction

8. How will this course be graded (Please select one)?
   Standard letter grade

9. What are the pedagogical objectives of the course?
   Learn about the various means plan a facility layout (for a variety of facility types)

10. Outline the student learning outcomes—a statement of the minimum expectations of
    students as they complete the course. You must list at least three outcomes.
    1. To define facility location and facility layout in a logistics and engineering context.
    2. To apply methods and algorithms for the design and planning of facilities.
    3. To discuss current material handling equipment, their application and performance.
    4. To examine layouts applied to factory and production operations.
    5. To use modern software application for evaluating units loads.
    6. To provide a unified picture of facility systems and facility planning process.

11. How will students be assessed on the learning outcomes?

Items	Percent Points
Participation	5%
Quizzes	10%
Homework	10%
Exam 1	20%
Exam 2	20%
Final Exam	20%
Term Project	15%

12. If this course changes the program curriculum map, please attach a copy of the updated
    curriculum map here.
    Please see the direction at the end of this proposal for how to upload your curriculum map
    document.

13. Provide additional information about the course including (a) how often the course is to be
    offered, (b) who will be the routing instructor or course coordinator, and (c) what steps will
    be taken by the department to ensure its continued coverage (current expertise and interest
    within the department).
    every to every other year offering, instructor is coordinator, present faculty will teach course
    (either through IE program or ETM program)

14. Will the proposed changes require a change to the Clear Path Showcase (4-year plan)? If
    yes, please attach both current and revised clear path documents.
    Please see the directions at the end of this proposal for how to upload your clear path
    document.

15. How will the proposed changes impact the ability of students to complete the degree requirements in a timely manner, and how will the proposed changes impact requirements in other departments or programs?
no change

16. Will a laboratory/studio fee or other course fee be assessed? If yes, include a rationale for the fee assessment.
no

17. Does this change require new resources from the originating department or other departments (including the library)? If yes, please explain.
no

Direction for uploading supporting documents:

1. **To upload your model syllabus to the folder for your proposal go to https://spaces.utc.edu/sites/UndergraduateProposal.**
2. **Next, click on the name of your proposal under "My Proposals".**
3. **Click the "Documents" tab and then click the "Upload Document" tab.**
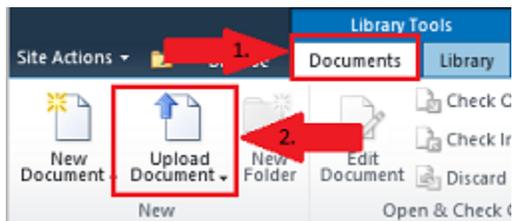
Important: After completing your proposal you must start the *Curriculum Proposal Workflow*.

To begin workflow:

1. Click on the name of your proposal below.
2. Next, click the "Document Set Manage" tab in the ribbon at the top of the page and select the "Workflows" button.
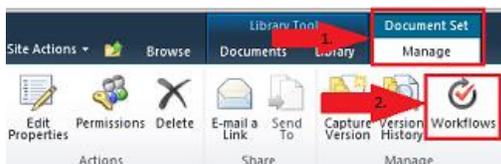
3. Under "Start a New Workflow" click "Curriculum Proposal Workflow" and then click the "Start" button.

Workflow Sequence for Full Proposal – Course Changes
1. Department Head
2. College Curriculum Committee
3. College Dean

4. Other Areas Affected (If any)
5. Records Office
6. Associate Provost
7. Provost (if a fee will be assessed)
8. Faculty Senate Curriculum Committee
9. Faculty Senate