

Application for a New Course v10.5

Course ID <i>Subject and Number</i>	ENGR 431
Date APPROVED	
Date DENIED	

I. Systems and Catalog Information Complete each item.

1	Course Developer	Matthew Steele
2	Course Teacher	A member of the Engineering & Physics Department faculty
3	Course Title	Senior Clinic Studio 1
4	Course Abbreviation (if title is over 30 characters)	
5	College	College of Arts and Sciences
6	Department	Engineering and Physics
7	Number of Credit Hours	1
8	Is the course Fixed Credit or Variable Credit?	Fixed
9	Is the course repeatable?	No
10	Maximum number of times course may be repeated	0
11	Maximum number of hours credit	1
12	Explanation for variable credit	N/A
13a	Course contact hours - LEC	0
13b	Course contact hours - Lab	0
13c	Course contact hours - Practicum	0
13d	Course contact hours - Seminar	0
13e	Course contact hours - Studio	3
13f	Course contact hours - Online	0
13g	Course contact hours - Colloquium	0
13h	Course contact hours – Field Experience	0
13j	Course contact hours - Internship	0
13k	Course contact hours - Research	0
13m	Course contact hours - Workshop	0
13n	Course contact hours – Other (specify)	0
14	Instructor Workload	3
15	Grade Mode (check all appropriate):	☒ Standard ☐ Credit/No Credit (undergrad only)
16	Maximum Enrollment	20
17	Catalog Description (50 words or less)	The studio component of the first of a two-course senior-level engineering design experience. Students will engage in team based professional level engineering design projects

		using design procedures to develop specifications, alternate solutions, and engineering drawing and plans while considering external constraints. When appropriate, students will construct, model, test, and evaluate designs.
18	List any prerequisites (course/s, test scores, class standing, major, etc.)	ENGR 390
19	List any co-requisites	ENGR 430
20	If the course is cross listed, specify the Course ID(s) MUST have signature in Section V off all Department Chairs	No
21	Does this course have any special student costs? Yes/No <i>Attach a completed "Request to Add or Change Course Fees" form. Describe in section IV-F.</i>	No
22a	How often will it be offered? Fall	Offered
22b	How often will it be offered? Spring	As needed
22c	How often will it be offered? Summer	As needed
23	Frequency? All, odd, or even years?	All
24	First semester this course will be offered <i>New courses may not be taught under their approved course ID until they appear in the catalog, therefore, no earlier than the coming fall.</i>	Fall 2015
25	List course/s that should be deleted, include the last semester for course/s being deleted <i>A course cannot be deleted when it is a requirement in a degree plan in any department.</i>	None
26	Is this course required for a degree/s? Yes/No <i>If "Yes," attach a revised degree plan(s) reflecting the placement of the new course.</i>	Yes. This course is required for ENGR majors who graduate under the 12-13, 13-14 and 14-15 catalogs because those catalogs included a design experience of two 4-hour courses that will be satisfied by the combination of ENGR 430 and ENGR 431. Effective with the 15-16 catalog, the student's design experience is distributed into both the junior and senior years in the form of three 3-hour courses. When all students under the 12-13, 13-14 and 14-15 catalogs have graduated, this course will be closed.
27	Should the addition of this course be retroactively applied to the degree plan it supports? Yes/no and explain	No
28	Has this course been offered as a Special Topics course? Yes/No <i>If "Yes," specify the Course ID and enrollment for each term it was taught.</i>	No

	<i>(Note: New courses are NOT required to be taught as Special Topics courses prior to being approved. However, courses may be taught once as Special Topics before it is proposed. See the Course Descriptions section of the Catalog for details.)</i>	
29	List any courses in which content overlaps the proposed course. (Course ID and Name) <i>Attach statement from instructor/dept chair of existing course justifying the new offering in Section IV-D.</i>	None

II. Curriculum

1	Degree Plan Explanation of how this course affects degree requirements.	This application is to formally add the course to the catalog, along with the appropriate content information, prerequisites, etc. for ENGR 430.
2	Justification State the justification for adding this course to the current curriculum. Represent the need.	This course completes the required major design experience component of an engineering curriculum required by ABET for program accreditation.

III. Course Design

1. Audience and Course Goal

1	Describe the intended audience, including prerequisite skills.	This course is required of all engineering majors. It is intended to be taken in the fall semester of the senior year. Student should have completed the necessary core engineering courses providing the necessary skills and competencies.
2	State the overarching course goal(s) in performance terms.	In this course the students will engage in team-based work to complete the first part of a two part professional level engineering design course and project. Using engineering design

		procedures students develop specifications, consider external constraints, formulate alternate solutions, prepare engineering drawing and plans, and written and oral technical presentations.
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2. Competencies and Measurements

ABET Learning Objectives	Course Competencies	Measurement ¹
3(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	Creatively apply systematic design process to a real-world problem	Final written project report
	Develop, evaluate, and synthesize alternate design solutions	Scope of Work Problem Statement Final written project report
3(d) an ability to function on multidisciplinary teams	Work productively as a member of an engineering design team	Team Member Assessments
	Interface effectively with clients and professionals in industry,/government/education	Statement of Qualifications Problem Statement Weekly Progress Reports Final Written Report
	Create and communicate professional, interdisciplinary ideas	Final Written and Oral Report Team Member Assessments Weekly Progress Reports
3(g) an ability to communicate effectively	Create professional written responses and reports constructed from technical publications and sources	Final Written Report Literature Review
3(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.	Utilize problem-solving and core engineering education to discover best practices and solutions for the design sponsor	Final Written and Oral Report Team Member Assessments
	Utilizing the sponsor identified constraints and professional standards to shape and evaluate the results of the design process	Problem Statement Final Written Report

¹ For sake of consistency, many submitted items will be assessed using a rubric developed by a faculty committee.

3. Text and Resources

None

2. For **combined undergraduate/graduate** courses, make two lists:

- full publication information; label **Undergraduate**.
- full publication information; label **Graduate**. Indicate number of pages required.

IV. Supporting Documentation

Supporting documents must accompany proposal prior to preliminary approval by chair and dean.

1	Library — Submit new course application and syllabus to the Dean of the Library. Consult with the director and establish a deadline for completion of the library report. Attach the signed copy of the Library report.
2	Instructional Design — The application and syllabus must be reviewed by the Adams Center. Attach a copy of the Adams Center Review Letter.
3	Content Overlap — Include one document for each course you listed in Section I-I. Attach statement from instructor/dept chair of existing course justifying the new offering.
4	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location/s.
5	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
6	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
7	Justification — Attach all documents referred to in Section II-2
8	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.
9	Provide documentation for all additional attachments here

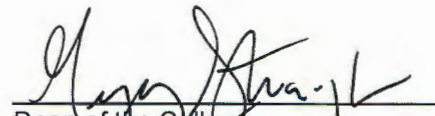
V. Preliminary Approvals

All supporting documentation has been assembled and attached to this application. I believe this course is ready to be presented to appropriate councils. We have a plan to fund this new course.

Course Number and Name ENGR 431 Senior Clinic Studio 1

Primary Department


Department Chair
4/21/2015
Date


Dean of the College
4/23/15
Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair

Date

Dean of the College

Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair

Date

Dean of the College

Date

VI. Actions *Place all actions on one page.*

Course ID: ENGR 431

Course Title: Senior Clinic Studio 1

1. College Academic Council: (for all courses)

Note: Insert additional lines for College Academic Council action for each college involved in cross-listed courses.

Approved ☒ Denied ☐ *Lynette Sharp Benge* 4-23-15
College Dean or Director Date

Approved ☐ Denied ☐ _____
College Dean or Director Date

2. Graduate Council: (for graduate level courses)

Approved ☐ Denied ☐ _____
Dean of Graduate School Date

3. Teacher Education Council: (when applicable)

Approved ☐ Denied ☐ _____
TEC Chair Date

4. University General Education Council: (when applicable)

Approved ☐ Denied ☐ _____
Provost's designee Date

5. University Undergraduate Academic Council: (*undergraduate level courses*)

Approved ☐ Denied ☐ _____
Vice Provost Date

6. Academic Provost: (for all courses)

Approved ☐ Denied ☐ _____
Provost Date

7. President of the University: (for all courses)

Approved ☐ Denied ☐ _____
President Date

Attach notes, comments, or conditions from appropriate councils: