Abilene Christian University

Application for a New Course v10.5

Course ID *Subject and Number*	ENGR 131
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	Computer Aided Design and Modeling
4	Course Abbreviation (if title is over 30 characters)	CAD and Modeling
5	College	College of Arts and Sciences
6	Department	Engineering and Physics
7	Number of Credit Hours	3
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	3
12	Explanation for variable credit	N/A
13a	Course contact hours - LEC	3
13b	Course contact hours - Lab	0
13c	Course contact hours - Practicum	0
13d	Course contact hours - Seminar	0
13e	Course contact hours - Studio	0
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):	_X__Standard ___Credit/No Credit (undergrad only)
16	Maximum Enrollment	20
17	**Catalog Description** (50 words or less)	An introductory course in the use of computer aided design (CAD) software for drafting, engineering design, and 3D modeling.
18	List any prerequisites (course/s, test	None

	scores, class standing, major, etc.)	
19	List any co-requisites	None
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 *Attach a completed "Request to Add or Change Course Fees" form.* *Describe in section IV-F.*	No
22a	How often will it be offered? **Fall**	Offered
22b	How often will it be offered? **Spring**	Offered
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 *New courses may not be taught under their approved course ID until they appear in the catalog, therefore, no earlier than the coming fall.*	Fall 2015
25	List course/s that should be deleted, include the last semester for course/s being deleted *A course cannot be deleted when it is a requirement in a degree plan in any department.*	None
26	Is this course required for a degree/s? Yes/No *If "Yes," attach a revised degree plan(s) reflecting the placement of the new course.*	Yes. Course will replace DSGN 232. After discussion with DSGN instructors, it was determined that a class specific to engineering computer based design was needed in lieu of the previously listed course, as materials covered in the proposed course are industry specific. Additionally, the course will aid in meeting ABET requirements.
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 *If "Yes," specify the Course ID and enrollment for each term it was taught.* *(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.)*	Yes. ENGR 140 – Spring 2014, Enrollment 23; ENGR 140 – Fall 2014, Enrollment 34.
29	List any courses in which content overlaps the proposed course. (Course ID and Name)	None

	Attach statement from instructor/dept chair of existing course justifying the new offering in Section IV-D.	

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. in the place of DSGN 232.
2	**Justification** State the justification for adding this course to the current curriculum. Represent the need.	The course provides industry specific instruction on computer based engineering design which was not available in DSGN 232. Additionally, the class will aid in meeting ABET requirements.

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 primarily intended to be taken in the freshmen year to provide students with skills needed in the engineering job market.
2	State the overarching course goal(s) in performance terms.	In this course students will learn: drafting skills utilizing CAD software, create digital 3-D models of objects, develop orthographic and section view drawings, and render CAD files in multiple formats.

2. Competencies and Measurements

ABET Learning Objectives	Course Competencies	Measurement
3(g1) an ability to communicate effectively (Oral Communications)	Present technical information in an oral presentation.	Project 3 – oral presentation (ABET Rubric)
3(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	Develop drafting skills utilizing CAD software.	Homework, Projects, Quizzes (Project 3 – ABET Rubric)
	Create digital 3-D models of objects.	Projects, Test (Project 3 – ABET Rubric)
	Use software to render CAD files in multiple formats.	Homework, Projects (Project 3 – ABET Rubric)
	Generate orthographic and section view drawings of objects.	Homework, Quizzes, Projects, Test (Project 3 – ABET Rubric)

3. Text and Resources

1. Give the full publication information of the textbook/s and other required resources and outside readings.

Text: *Learning Autodesk Inventor 2015: A Tutorial Introduction,* by L. Scott Hansen, SDC Publications, 2014, ISBN 978-1-58503-877-0

Software: Autodesk Inventor Professional 2015. (Free student edition available for download at Autodesk website)

2. For **combined undergraduate/graduate** courses, make two lists:
   a. full publication information; label **Undergraduate**.
   b. 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 131 Computer Aided Design and Modeling

Primary Department

Department Chair

10/13/14
Date

Dean of the College

12-3-14
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 131

Course Title: Computer Aided Design and Modeling

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 X Denied ___ _____ 12-3-14
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: