

Advanced CAD (DFTG 2332)



Credit: 3 semester credit hours (2 hours lecture, 4 hours lab)

Prerequisite/Co-requisite: DFTG 2319

Course Description

Application of advanced CAD techniques.

Required Textbook and Materials

1. Inventor
2. *Technical Drafting*: (DFTG 1305)
3. 2 GB minimum jump drive

Course Objectives

Upon completion of this course, the student will be able to:

1. Demonstrate a working knowledge of basic and advanced parametric modeling techniques
2. Creating drawing views
3. Create Assemblies

Course Outline

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| <p>A. Introduction</p> <ol style="list-style-type: none">1. Introduction of faculty and students2. Review Syllabus3. Review Class Policies <p>1. Review Lab Assignments</p> <p>B. Getting Started</p> <ol style="list-style-type: none">1. Input Methods2. Adding Dimensions Manually <p>C. Constraining the Sketch</p> <ol style="list-style-type: none">1. Change part and sketch Application options2. Sketch part outlines3. Geometric Constraints4. Dimension a sketch5. Change dimensions in a sketch <p>D. Create and Edit Sketched Features</p> <ol style="list-style-type: none">1. What is a Feature2. Inventor Browser3. Extrude4. Revolve5. Edit Features | <ol style="list-style-type: none">6. Edit the Sketch7. Create part on Plane <p>E. Create Placed Features</p> <ol style="list-style-type: none">1. Fillets2. Chamfers3. Holes4. Shell5. Work Axis,, points and planes6. Pattern <p>F. Drawing Views</p> <ol style="list-style-type: none">1. Create Base and projected views2. Create Auxiliary, section, detail, and broken views3. Annotation <p>G. Assemblies</p> <ol style="list-style-type: none">1. Assembly options2. Create components and sub-assemblies3. Constrain Components4. Edit assembly constraints5. Drive constraints |
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Approved mm/yyyy

DFTG 2332
Course Syllabi

6. Create presentation file
 7. Create and edit Bill of Materials (BOM)
- H. Advanced Techniques
1. Section a Part
 2. Create Ribs
 3. Emboss Text
 4. Sweep features
 5. Loft features
 6. Coil features
- I. iComponents
1. Create iMates
 2. Create relationships between dimensions
 3. Create and place iParts

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

<i>Activity</i>	<i>Percentage</i>
Homework/Labs	10%
Quizzes	10%
Projects	30%
Final Project	25%
Final Exam	25%
<i>Total</i>	<i>100%</i>

Course Requirements

1. Create Parts and Drawings using computer software.
2. Listen to lectures and take notes.
3. Take quizzes and tests.

Attendance Policy

1. Missing more than 4 classes will result in an automatic “F” for the course.
2. Absences are counted for unexcused, excused and coming to class late.
3. Missing more than 20 minutes of a class period will count as an absence.
4. Being tardy 3 times equals 1 absence.

Course Policies

1. No food, drinks, or use of tobacco products in class.

2. No foul or harsh language will be tolerated
3. Turn off all Cell Phones during lectures
4. Headphones may be worn only upon Instructor approval
5. Do not bring children to class.
6. No Cheating of any kind will be tolerated. Students caught cheating or helping someone to cheat can and will be removed from the class for the semester. Cheating can result from expulsion from LIT.
7. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
8. BACK-Ups
It is the student's responsibility to make back-up copies of their work. Do not rely on the server to be their 100% of the time. I cannot help you if you lose your work. Remember that in order for your work to be graded, it must be in your account on the server.
9. Internet Usage
 - a. Classroom computers have access to the internet.
 - b. Student usage of the internet will be monitored.
 - c. Proper usage of the internet will be allowed. Used for classroom research or as directed.
 - d. Any unauthorized use of the internet will not be tolerated.
 - e. Improper usage of the internet, such as profanity, pornography, gambling, etc... will result in disciplinary action not limited to expulsion from LIT.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Student Code of Conduct Statement

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the LIT Catalog and Student Handbook. The LIT Catalog and Student Handbook may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office.

Course Schedule

Week	Topic	Reference
1	Course introduction and policies <ul style="list-style-type: none"> • Lecture: Chapter 1 • Lab: Initial Setup 	Handouts & Textbook
2	Getting Started <ul style="list-style-type: none"> • Lecture: Chapter 1 • Lab: Exercises in Chapter 1 	Chapter 1
3	Constraining the Sketch <ul style="list-style-type: none"> • Lecture: Chapter 2 • Lab: Exercises in Chapter 2 	Chapter 2
4	Create and Edit Sketched Features <ul style="list-style-type: none"> • Lecture: Chapter 3 • Lab: Exercises in Chapter 3 • Project: As assigned 	Chapter 3
5	Create Placed Features <ul style="list-style-type: none"> • Lecture: Chapter 4 • Lab: Exercises in Chapter 4 	Chapter 4
6-7	Drawing Views <ul style="list-style-type: none"> • Lecture: Chapter 5 • Lab: Exercises in Chapter 5 • Project: As assigned 	Chapter 5
8-10	Assemblies <ul style="list-style-type: none"> • Lecture: Chapter 6 • Lab: Exercises in Chapter 6 • Project: As assigned 	Chapter 6
11-12	Advanced Techniques <ul style="list-style-type: none"> • Lecture: Chapter 7 • Lab: Exercises in Chapter 7 	Chapter 7
12-13	iComponents <ul style="list-style-type: none"> • Lecture: Chapter 8 • Lab: Exercises in Chapter 8 	Chapter 8
14,15,16	Final Project <ul style="list-style-type: none"> • Lecture: • Project: Assign Final Project 	Chapter 9

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Course Syllabi

DFTG-2332 Fall 2015

I have received a copy and have read the Course Syllabus for DFTG-2332 as provided to me by my instructor.

Print Name

Signature

Date