



DFTG-1445-001IN-SP2023
Parametric Modeling and Design
Spring 2023
Wednesday evenings: 6:00 pm up to 8:50 pm

Instructor Information & Communication:

Steven Britt, sbritt1@com.edu, 832-326-7935 (cell/text)

Best Practice: Send a detailed email to the sbritt1@com.edu email address. Then send a text to my cell phone telling me you have a challenge and have sent an email. I will respond as soon as I possibly can do so. Almost always the same day.

Required Textbook/Materials:

Required: None

Recommended Reference: "AutoDesk Inventor 2022 & Engineering Graphics" by Randy H. Shih



Course Description: A computer-aided modeling course that will cover development of 3-Dimensional drawings and models utilizing parametric modeling software and inputs/outputs of parametric modeling parameters.

Determination of Course Grade/Detailed Grading Formula: Student learning outcomes will be measured through the critique of drawings and parametric modeling assignments coupled with major and minor examinations. Students will also be assessed on participation and completion of special projects. The final course grade will be based on the total points for online attendance, drawings, quizzes, discussion forum, and course evaluation.

Grading Formula Students will be graded on "points-earned" criteria. A grade of C or above is considered acceptable. Student learning outcomes will be measured through the critique of drawing assignments coupled with major and minor examinations. Students will also be assessed on online virtual lab participation and completion of projects/assignments.

Grading Scale

90% - 100%	=	A
80% - 89%	=	B
70% - 79%	=	C
60% - 69%	=	D

Late Work, Make-Up, and Extra-Credit Policy: All work is “Open Ended” - meaning that assignments may be resubmitted after being turned in again for regrading an unlimited number of times. In the real world of engineering; projects, drawings, prototypes, plans, etc. are often submitted, reviewed, evaluated, and sent back to the engineering team for refinement and redesign. This process of evaluation/refinement/redesign will be applied to assignments in class with no penalty. Students will receive the highest grade earned.

Attendance Policy: Attendance of virtual/online lab sessions is required. You will need to log in to D2L Brightspace each week to find the current drawing, instructional videos, quizzes and reading assignments. Watching the demos and completing the exercise(s) and problems could take 2 to 8 hours outside of the lab time.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via D2L or other LMS)

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Use a customized CAD system to create documents &/or solid models	Critical Thinking	Unit 1 Drawing Problems
2. Use OLE with external software	Critical Thinking	Unit 2 Drawing Problems
3. Complete drawings in a collaborative team.	Communication Visual	Unit 5 Animation Problem

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams, or sharing drawing files is an extremely serious offense and will result in a grade of zero on that exam/drawing assignment and the student will be referred to the Dean of Students for the appropriate disciplinary action. Out in the working world, in most cases you would be immediately fired, and a negative report given if the company is called for a reference. It simply is not worth it.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact [insert name and title of direct supervisor] at [phone number/email address].

Class Outline for Spring 2023

Unit:	Title/Description	Subject/Activity
Unit 1	The First Class & Single	Unit 1 – Single Inventor Parts, Free Inventor Download, Inventor Parts Interface Video, File Type Video, Project Folders, Exercises Fig 1, 2, 3, & 4
Unit 2	Working Drawings & Annotation	Intro to Parametric Sketching & Modeling Video, Exercises 1-5, 1-6, 1-7 and 1-8, Creating & Submitting IDW Files
Unit 3	More Parametric Sketching & 3D Operations	Exercises 1-9, 2-0, 2-1 and 2-2, Creating & Submitting IDW files
Unit 4a	Inventor Assemblies:	New Project Folder, Pu235 Explosive Space Modulator - Making Assembly Parts
Unit 4b	Inventor Assemblies: Placing Parts into Assemblies	PU235 ESM Project
Unit 4c	Inventor Assemblies: Multi-Page IDWs	PU235 ESM Project
Unit 5	More Single Part Models	Bracket, Sprocket, Bearing
Unit 6	Tool Post Assembly Project	10 Piece Part Assembly – Creating parts, Pulling Parts from the Content Center, Cutting Knurling, Assembly of Parts
Unit 7	More Inventor Commands	Loft, Sweep, etc.
Final Project	Instead of a Final Exam, there is a 2 week long Final Project	

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook *Student_Handbook_2022-2023_v4.pdf* (com.edu). *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is

offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Textbook Purchasing Statement: The Reference Textbook listed above is NOT required. It is a good reference book for personal use. A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is March 1. The last date to withdraw from the 16-week session is April 24. The last date to withdraw for the 2nd 8-week session is May 3.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.