



DFTG-2432-201HY-FA2022
Advanced Computer-Aided Drafting
Fall 2022

Mondays – 6:00 pm to 8:50 pm

Instructor Information: Steven Britt, Adjunct
sbritt1@com.edu
832-326-7935 (cell)
Please text to cell outside of class hours.

Student hours and location: During Class hours and as available by text & email. There will NOT be a class held on days that fall during a holiday per the [C.O.M. Academic Calendar](#).

Required

Textbook/Materials:

Required: None
Recommended Reference: “AutoDesk Inventor 2022 & Engineering Graphics” by Randy H. Shih

Course Description: An advanced computer-aided modeling course that will cover development of 2-Dimensional and 3-Dimensional drawings and models from parametric modeling software and utilization of outputs from parametric modeling

Course requirements: Each week there is the same process for learning the material:

1. Read the assigned information/text in D2L Brightspace, watch the provided videos demonstrating methods, and complete the assigned exercises. All assignments will be located and turned in through D2L Brightspace.
2. In the Monday night lab we will collectively review any questions the class members have on the assignments for clarification.
3. In the Monday night lab we will individually and collectively complete the drawing/parametric modeling problems.
4. You will also take short quizzes in D2L Brightspace over selected information to check for understanding of the content as well completing the assignments.

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. The final course grade will be based on the following grading percentages:

Assignments: 60% Quizzes: 40%

Grading Scale

90-100 = A

80-89 = B

70-79 points = C

60-69 points = D

Make-Up 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. In addition, you are required to log in to D2L Brightspace a minimum of twice per week. 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 up to 4 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 (Federal law) restrictions, faculty cannot share any information about performance in the class through other electronic means. If you have course content specific questions, please send me a detailed question via email and then text message me letting me know that you sent the email question. I will do my best to respond within a 24-hour period.

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Use a customized CAD system to create documents and/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 4Animation 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].

Course outline:

Unit 1: Introduction/Refresher to Inventor
 Reading Posted in Brightspace (Online)
 Exercises Modeling 4 distinct parts (Online)
 Modeling Problems Compiling an assembly using a project file (Online)
 Quiz A short quiz over concepts and commands (Online)
 Discussion A mini essay on the discussion forum topic. (Online)
 Duration: Three weeks 3

Unit 2: 2D printing
 Reading Posted in Brightspace (Online)
 Exercises Printing on inkjet - 4 different parts (Online)
 Printing Problem Printing on oversize/large format paper. And tiled images. (Online)
 Quiz A short quiz over concepts and commands (Online)
 Discussion A mini essay on the discussion forum topic. (Online)
 Duration Two weeks

Unit 3	Rendering & Digital Created Photographs
Reading	Posted in Brightspace (Online)
Exercises	Developing material representation of different parts (Online)
Rendering Problem	Using Inventor Studio (Online)
Quiz	A short quiz over concepts and commands (Online)
Discussion	A mini essay on the discussion forum topic (Online)
Duration	Three weeks
Unit 4	Animation & Digital Created Video
Reading	Posted in Brightspace (Online)
Exercises	Composing an animated assembly (Online)
Animation Problem	Animating Inventor Assembly file with audio (Online)
Quiz A	short quiz over that concepts and commands (Online)
Discussion	A mini essay on the discussion forum topic (Online)
Duration	Four weeks
Unit 5	3D printing
Reading	Posted in Brightspace (Online)
Exercises	Printing from Inventor (Online)
Printing Problem	Preparing Inventor File and Printing Project at a scale
Quiz A	short quiz over that concepts and commands (Online)
Discussion	A mini essay on the discussion forum topic (Online)
Duration	Four weeks

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. https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf. *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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

Academic Success & Support Services: College of the Mainland is committed to providing students with 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 accommodation is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

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 October 6. The last date to withdraw from the 16-week session is November 19. The last date to withdraw for the 2nd 8-week session is December 2.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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 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.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland’s Coronavirus Information site at www.com.edu/coronavirus. In compliance with [Governor Abbott's May 18 Executive Order](#), face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance, when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.