

Advance CAD 202690.DFTG2332.1A1

**CREDIT**

3 Semester Credit Hours (2 hours lecture, 4 hours lab)

**MODE OF INSTRUCTION**

Hybrid

**PREREQUISITE/CO-REQUISITE:**

DFTG 2319

**COURSE DESCRIPTION**

Use of 'INVENTOR' as the mechanical drafting tool. The student will use 3D modeling to make virtual solid models of mechanical objects. Then the student will assemble their pieces into working virtual models. Finally, the student will produce industry standard working drawings from the models and properly dimension and annotate them. Additionally, the student may print the design on 3D printers.

**COURSE OBJECTIVES**

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

1. Demonstrate an understanding of the principles of working drawings.
2. Demonstrate competency in preparing working drawings for mechanical design.
3. Demonstrate an understanding of terms, symbols, practices and procedures involved in mechanical drafting.
4. Demonstrate competency in utilizing symbols in drafting
5. Demonstrate an ability to use reference materials in order to create working drawings based on an assigned project criteria.
6. Demonstrate competency in detail-oriented plans that include dimensioning, multiple scale drawings, and sections

**INSTRUCTOR CONTACT INFORMATION**

|                  |                                                            |
|------------------|------------------------------------------------------------|
| Instructor:      | Brent Campbell                                             |
| Email:           | <a href="mailto:bacampbell@lit.edu">bacampbell@lit.edu</a> |
| Office Phone:    | 409-247-8667                                               |
| Office Location: | Building T5 Room 108B                                      |
| Office Hours:    | Tuesday, 4 –5pm                                            |

**REQUIRED TEXTBOOK AND MATERIALS**

1. Technical Drafting: (From DFTG 1305) Optional
2. Flash Drive to store drawings



**LAMAR INSTITUTE  
OF TECHNOLOGY**

### ATTENDANCE POLICY

Attendance is the accepted norm, please come to class. If you have circumstances beyond reasonable control and cannot attend, we can still get things done thru the internet, e-mail, text, etc. Keep in contact with me as the semester progresses.

### DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

### STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

### COURSE CALENDAR and COURSE EVALUATION

#### DFTG 2332 – ADVANCED COMPUTER AIDED DRAFTING

| NUMBER |                   | PROJECT NAME     | PERCENTAGE | DUE DATE |
|--------|-------------------|------------------|------------|----------|
| 1      | Part Projects     | Finger Guide     | 5.13%      | 10-Sept  |
| 2      |                   | Slide Block      | 5.13%      | 10-Sept  |
| 3      |                   | Cross feed Stop  | 5.13%      | 1-Oct    |
| 4      |                   | Cut-off Holder   | 5.13%      | 1-Oct    |
| 5      |                   | Tailstock        | 5.13%      | 15-Oct   |
| 6      | Assembly Projects | Roller Assembly  | 10.26%     | 29-Oct   |
| 7      |                   | Diamond Box      | 10.26%     | 12-Nov   |
| 8      |                   | Parametric Table | 15.38%     | 12-Nov   |
| 9      |                   | Scissor Jack     | 15.38%     | 3-Dec    |
| 10     |                   | Gyroscope        | 12.82%     | 3-Dec    |
|        | FINAL EXAM        | Portfolio        | 10.26%     |          |

## **GRADE SCALE**

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

LIT does not use +/- grading scales

## **ACADEMIC DISHONESTY**

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

## **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

## **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

## **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](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

**ARTIFICIAL INTELLIGENCE STATEMENT**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

**STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

**ADDITIONAL COURSE POLICIES/INFORMATION**

Individuals can get much of the coursework done if they have a good computer and access to the internet. AutoDESK.com provides educational license to students learning to use their software free of charge. A good gaming computer should run most CAD applications