

### **Instructor Information**

Dr. Eric Busby  
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Office Hours: By Appointment

**Class Time and Location:** TBD  
Industrial Technology Building RM 105

**Required Textbook:**  
NO REQUIRED TEXTBOOK

Students are required to read along and study the AutoCad 2020 Guidebook throughout the semester.

### **Reference:**

There will also be additional reading material assigned in the form of handouts that contain industry related information. Students will be responsible for that information on tests and quizzes.

### **Course Description**

The main objective of this course of study is to provide the student with an opportunity to acquire knowledge regarding the use of Autodesk's AutoCAD software as a design and drafting tool. Students will be given the opportunity to develop basic operational skills and proficiency using the AutoCAD software.

Through this course, students will gain an understanding of the skills that are necessary to produce quality drawings similar to those required in industry. The primary software used for this course is Autodesk AutoCad 2020. Students should be able to use the knowledge and experience gained in this course to complete drafting task using the AutoCAD software.

### **Student Learning Outcomes**

- Students will become familiar with AutoCad two dimensional drawings.
- Students will learn to apply elements of mechanical drafting such as layers, dimensions, drawing formats, and 2D figures in projects with a focus on ANSI industry standards.
- Students will be able to demonstrate graphical and computational problem-solving skills appropriate to the level of the coursework.

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

- Execute line command input options such as absolute, relative and polar coordinates
- Create a new drawing files, save and transfer drawing files
- Set the drawing working units such as architectural, decimal and fractional
- Draw the border using border templates
- Draw objects using the Line, Circle, Rectangles, Polygons and many more commands
- Use Modification tools such as the Mirror, Copy, Trim, Extend, Fillet, and array commands
- Create and Insert Blocks
- Create Layers and modify line properties
- Placing and creating Text, both single and multiline
- Dimensioning: set up dimension parameters i.e. architectural, decimal and/or fractional
- Dimensioning: measure properly in architectural, decimal and fractional styles
- Plotting drawings to scale and not to scale
- Create Hatch Patterns and include patterns within drawing
- Using Leaders properly
- Intro to Basic 3d Design and Rendering

This class is to be a learning experience, and one that you want to come to each week. As such the class structure, lesson topics, and overall learning environment will emphasize more than just knowledge comprehension.

**SRSU Accessibility Services Statement**

**ADA Statement:** Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. Students with qualifying disabilities who seek accommodations must initiate a request for a meeting for accessibility services. Students seeking accessibility services must contact Rebecca Greathouse Wren, M.Ed., LPC-S, Counseling & Accessibility Services, Telephone: 432-837-8203, or E-mail: [rebecca.wren@sulross.edu](mailto:rebecca.wren@sulross.edu).

For more information see: <https://www.sulross.edu/page/1384/accessibility-services>

**Attendance**

Attendance is necessary! Attendance will be taken each scheduled class period in accordance with University and Departmental Policy and will count as part of the daily work grade. Everyone starts with 280 points at the beginning of the semester for class attendance - each unexcused absence will cost 10 of those points. In accordance with the Student Handbook, after 9 hours of absences the student will be dropped from the course with an 'F'. If a student is tardy and misses the roll call, they will be charged with one absence. It is up to your professors' discretion whether an absence is excused or unexcused.

## **Class Structure**

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This course is designed to be a guided study and not just dissemination of information. It will be run on a lecture\discussion\activity format. Lectures will utilize overheads, power points, demonstrations, videos, and visits to the internet. Lectures will be given primarily to enhance and answer questions about the ***material that should have been studied prior to the class period.*** There may be some step-by-step guided practice, individual assistance, and demonstrations during the scheduled class time in areas where there seems to be a need. It is essential that everyone be in attendance for the scheduled meetings for sharing information, demonstrations, activities, and so questions are answered.

## **Time Commitment**

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Students should be prepared to spend at least 4-6 hours per week outside of class on assignments that will include: Homework, Reading Assignments, Lab work and studying for tests and quizzes.

## **Phones & Electronic Devices**

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No electronic devices other than calculators are allowed in the class or lab.

## **Assignments**

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**All assignments are to be submitted via Blackboard. No late work will be accepted without proper documentation or prior approval by the instructor.**

Daily work will consist of reading, worksheet pages, and in class assignments. The laboratory exercises and projects will be completed together during the scheduled class time. It's essential that everyone be in attendance for the scheduled class meetings.

**Course Communication:** The official e-mail communications channel for this course is the Sul Ross State University e-mail account (yourname@sulross.edu) of each student and professor. For the purposes of this course, no other e-mail account is acceptable.

**Due dates:** All assignments and projects will be given due dates which must be met. All assignments will be due by 11:59 pm on the assigned day. Assignments and projects will not be accepted if they are turned in late without approval. Late assignments will lose ten points per calendar day. Students are responsible for meeting the deadlines even if classes are missed.

**Grading:** All work will be graded on specific criteria using the following guidelines. Any worksheets will be graded on a points-per-answer basis. Any sketches and drawings assigned will be graded on a 100point (percentage) scale. Criteria for grading will include accuracy of content, appropriateness of content for assignment, presentation, and clarity. Projects in the lab will be graded on accuracy, neatness, content, adherence to standards, adherence to assignment, and workmanship. Graded items will be broken into specific categories and presented on grade sheets given at the time the assignments are given.

**THIS SYLLABUS MAY CHANGE AT ANYTIME**

## Grading Policy

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Final grades will be determined by totals in these areas:

- 5% quizzes
- 25% final exam (comprehensive)
- 40% daily work assignments: lab work, site visit, and attendance
- 30% final project (group or individual project)

In the event one of the above categories is not completed during the course that percentage will automatically be divided between the other categories at the same level. All assignment points will be converted to percentages for individual assignment letter grades.

A=100-90;

B=89-80;

C=79-70;

D=69-60;

F=59-0

Grades will be earned on the basis that “C” is average work, “B” is above average work, and “A” is well above average work. Barring unusual circumstances, there will be **NO INCOMPLETES** given at the end of this semester.

## Academic Honesty

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*All students are expected to complete their own work at all times. Any dishonest conduct will be promptly rewarded with an immediate “F”.*

### Plagiarism

*A student guilty of plagiarism and/or cheating will receive a grade of “F” in the course involved and the grade will be so recorded on the transcript. Students giving and receiving assistance in any unauthorized manner during an examination will subject themselves to this cheating policy. A pattern of cheating will result in suspension.*

## Lab Time

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As with all the Industrial Technology classes there will be a substantial amount of lab work to be done. Normally 6 hours outside of scheduled class time each week for researching, reading, and general homework is expected for college level work. All required research, lab work, and practice will not be able to be completed within the scheduled class time. There may be some release time from class to complete some of the work. Hours for access to the lab will be announced when set.

## Supplies

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There are some expendable supplies you will need for the class such as pencils (lead), erasers, and paper. These supplies may be provided through the department through a set materials fee based on the average material use by students.

**THIS SYLLABUS MAY CHANGE AT ANYTIME**

## **Storage**

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The lockers in the hallway may be checked out and used for storing your equipment and supplies. These lockers must be signed out with the secretary in the IT main office. You must supply your own lock. Do not leave any of your work or equipment lying around in the lab!

## **Quizzes**

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You will not be given advance notice of quizzes. They will be primarily written in nature. There will be no make-up quizzes.

## **Tests/Exams**

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**All exams will be given on the announced date.**

Everything discussed and everything in the assigned reading, including laboratory material, is fair game for tests and quizzes. It is your responsibility to be in attendance the day of scheduled exams. Tests will be either administered through Blackboard or written in nature using various styles of questions covering terminology, equipment, processes, and other items discussed. Attendance for the tests is mandatory; no makeup tests will be given.

## **Midterm Exam**

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There will be no midterm exam given.

## **Final Exam**

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The final exam will be during the week of May 3-5, 2021. The specific date and time will be announced during the semester. The exam will include written, practical, and analytical portions, and will be comprehensive of the entire semester. Do not make any other plans for that day and time.

## **Final Project**

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The culminating project for this class will be a major drawing set. The final project will be graded on the design you develop and the presentation of the plans. This set must demonstrate your ability to use the AutoCAD correctly and efficiently. The final set will be graded as a whole unit and not as individual drawings. (The individual drawings will be graded as the semester progresses.)

**The final set of plans will be graded on the following criteria:**

- Design quality
- Support for design
- Accuracy of plans
- Continuity of plans
- Completeness of idea(s)
- Quality and correctness of drawings
- Overall neatness