Instructor Information

Dr. Eric Busby
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Office Hours: By Appointment

Class Time and Location: Tuesday & Thursday
11:00 am- 12:15pm
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 software of Computer Aided Drafting (CAD).
Students will be given the opportunity to develop basic operational skills in the use of
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.

Below are some of the topics this course will be reviewed and executed.
PROPER DRAFTING USING AUTOCAD, DIMENSIONING AND EDITING USING AUTOCAD, TEXT
AND NOTATIONS, LINE PROPERTIES, MERGING DRAWING FILES, FILE MANAGEMENT AND
MAINTENANCE, DRAW CIRCLES/ARCS/ELLIPSES USING AUTOCAD, CREATING LAYERS,
CREATING BLOCKS, SETTING, AND CREATING BORDERS, PLOTTING DRAWINGS, SHARING
AND SENDING DRAWINGS PROPERLY. ARCHITECTURAL, MECHANICAL AND MACHINE
DRAWINGS WILL BE EXPLORED AND COMPLETED.

THIS SYLLABUS MAY CHANGE AT ANYTIME

Student Learning Outcomes

This course is designed to meet one or more of the following Student Learning Outcomes:

1. Students will demonstrate the ability to identify and interpret information provided in technical drawings, and schematics.
2. Students will demonstrate the ability to integrate the principles of related fields into the use of the CAD software.
3. Students will demonstrate digital proficiency (use of a computer; basic operating system functions; network, drive, and directory navigation; etc.)
4. Create production documents employing standard conventions and requirements.

Marketable Skills

1. Students will demonstrate knowledge of project management, project planning, scheduling, and estimating.
2. Students will demonstrate knowledge of industry safety practices.
3. Students will understand and implement lean philosophies to improve efficiency and eliminate waste.
4. Students will demonstrate the ability to communicate information and ideas verbally and in writing so others will understand.

Course Objectives

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

- Execute line command input options such as absolute, relative, and polar coordinates.
- Create 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 multi-line.
- 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

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SRSU Accessibility Services Statement

ADA Statement: Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartze@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, SUI Ross State University, Alpine, Texas 79832.

Library Information

The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

The Southwest Texas Junior College (SWTJC) Libraries at Uvalde, Del Rio, and Eagle Pass. Offer additional access to library spaces and resources. Del Rio, Eagle Pass, and Uvalde students may also use online resources available through SWTJC website, library.swtjc.edu. The SWTJC Libraries serve as pick-up locations for Inter-Library Loan (ILL) and Document Delivery from the Alpine campus.

Diversity Statement

"I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you."

Classroom Climate of Respect

Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose, and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still, we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

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

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

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

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

Assignments

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 budgeting exercises. 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 100-point (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.

Grading Policy

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

Academic Honesty

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

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

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.

Storage

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!

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Quizzes

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

All exams will be given on the announced date.

The exams will cover material from class lecture and assigned readings. It is your responsibility to complete the exam when scheduled. Tests will be either administered through Blackboard using various styles of questions covering terminology, equipment, processes, and other items discussed. Participation for the tests is mandatory; no makeup tests will be given.

Midterm Exam

There will be no midterm exam given.

Final Exam

The final exam will be during the week of May 12,15-17, 2023. 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

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

- Design considerations and room planning
- Continuity of plans

- Completeness of idea(s)
- Quality and correctness of drawings
- Overall neatness