

### Instructor Information

Name: Terrence Desmond Ross

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Office Location: IT 101

Office Hours: by appointment

### Course Information:

#### Class Time and Location:

(Tues, Thurs.) at Industrial Technology Room 111 13:00 – 15:50 for lab work.

#### Required Textbook:

The text is required for this course is:

Technical Drawing (16<sup>th</sup> edition) by Frederick Giesecke, Shawna Lockhart, Maria Goodman, Cindy Johnson.

Peachpit Press ISBN-13: 978-0138065720

#### Reference Material:

Machinery's Handbook handouts.

### Course Description:

This course of study is designed to provide the student with an opportunity to acquire basic introductory knowledge and skills pertaining to communication in the form of drafting and design. Emphasis is placed on developing skill in tool selection, basic line work, and standards relating to several technical areas of drafting. Topics will include the following (though not necessarily in this order):

ANSI STANDARDS IN LAYOUT, LINE WORK and LETTERING, ASSEMBLY AND PRESENTATION DRAWINGS, ELECTRONIC DRAFTING, GEOMETRIC CONSTRUCTION, GEOMETRIC DIM AND TOLERANCING, HISTORY AND IMPORTANCE OF DRAFTING/DESIGN, MULTI VIEW DRAWING, PATTERN DRAFTING, PICTORIAL REPRESENTATION, TOOL SELECTION AND USE, WORKING DRAWINGS

### Student Learning Outcomes (SLO):

This course is a beginning course in drafting designed to provide students with the fundamentals and principles of Engineering Drafting and Design. Emphasis is placed on developing a clear understanding of working drawings and on the skills necessary to produce high quality working drawings. This is accomplished through the use of American National Standards Institute symbols and conventions, techniques of freehand sketching; accepted styles and practices of lettering; and the relationship between points, lines and planes through multi-view and pictorial drawing principles.

## Marketable Skill:

- Describe the difference between mechanical drawing and sketching and demonstrate competence in completing each type.
- Evaluate a sketch of an object, or an actual object, and plan, organize, and complete a clean and technically correct engineering drawing using pencil and/or ink.
- Read and measure correctly with the metric scale.
- Solve geometry problems using correct geometric construction procedures.
- Define terms relating to the geometry of a drawing.
- Neatly sketch various simple technical drawings to scale.
- Neatly draw simple isometric, dimetric, trimetric, and perspective technical drawings to scale.

## **SRSU Disability Services**

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. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, 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 [rebecca.wren@sulross.edu](mailto:rebecca.wren@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, Sul 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](http://library.sulross.edu). Off-campus access requires logging in with your Lobold ID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email ([srsulibrary@sulross.edu](mailto: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](http://library.swtjc.edu). The SWTJC Libraries serve as pick-up locations for Inter-Library Loan (ILL) and Document Delivery from the Alpine campus.

## **Attendance and Participation**

If you do not attend classes, you could lose your financial aid. You must attend and participate in your on-campus or online course(s) before the course certification date and continue beyond the course withdrawal date.

Your instructor is also required by law to validate/certify your attendance in your on-campus or online course(s) in order for you to receive financial aid. To meet this attendance requirement in an online course, you must demonstrate academic activity to establish eligibility for federal student aid with activities such as, but not limited to, the following examples: initiating contact with your instructor to ask a question about the academic subject studied in the course, submitting an academic assignment, taking an exam, completing an interactive tutorial, participating in computer-assisted instruction, attending a study group that is assigned by the instructor, or participating in an online discussion about academic matters relating to the course.

In an online class, simply logging in is not enough to demonstrate academic purpose. You are required to participate in your online class by taking part in an academically related activity as described above.

## **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.

## **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."

## **Academic Integrity**

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden.

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.

## Grading Policy

All work will be graded on specific criteria using the following guidelines. Any worksheets will be graded on a points-per-answer basis. 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.

Final grades will be determined by totals in these areas:

55% daily work

30% Attendance

10% Final Design project drawing

5% instructors discretion grade to include attitude, lab care, and work ethic.

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

## Tests:

All tests will be of the take home variety.

## Midterm Exam:

No Midterm exam

Final Exam:

There will be a two week final section covering final design projects.

**IT 1303 Engineering Drawing Spring**

2026

**Tentative Reading Schedule**

The following is a tentative reading schedule for the semester.

<b>Reading</b>
Chapter 1: The World Wide Graphic Language for Design
Chapter 2: Layouts and Lettering
Appendix 6: Geometric Constructions
Chapter 3: Technical Sketching
Chapter 4: Orthographic Projection
Chapter 5: 2D Drawing Representation
Chapter 6: Sectional Views
Chapter 7: Auxiliary views
Chapter 8: Manufacturing Processes
Chapter 9: Dimensioning
Chapter 10: Tolerancing
Chapter 11: Threads, Fasteners, and Springs
Chapter 12: Working Drawings
Chapter 13: Drawing Management
Chapter 14: Axonometric Projection
Chapter 15: Oblique Projection
Chapter 16: Perspective Drawings
Chapter 22: Welding Representation
Chapter 18: Electronic Diagrams
Chapter 19: Structural Drawing
Chapter 21: Piping Drawing

Notes: