

COURSE SYLLABUS IT 3316 ADVANCED MACHINE METAL TECHNOLOGY Course Term: 8/28/2023 – 12/13/2023 Delivery Method: Face to Face

Instructor Information

Name: Terrence Desmond Ross Email: tross@sulross.edu Phone: 837-8138 Office Location: IT 101 Office Hours: by appointment

Course Information:

Class Time and Location:

(Mon, Wed) at Industrial Technology Room 100 12:00 pm - 15:20 pm for lab work.

Required Textbook:

No Text is required

Reference Material:

Machinery's Handbook handouts.

Course Description:

The course is an advanced course in the use of precision measuring instruments and metal working machines. This course is intended to be a refinement of the machine shop practices of industry. Shop and machine safety, hand tool and machine operation, materials characteristics, are a few of the topics covered in this course.

Student Learning Outcomes (SLO):

This course is defined by machining projects. Introduction to hand sketches and computer driven

drawings will apply to describing project shapes and sizes. Projects will evolve from copying an

original example. Verbal overviews will occur in the class setting for describing all machining operations.

All students will execute copies of the original design in a teamwork setting. All students will execute

their own piece parts for exact replication of the example project.

All available machine tools will be used in the preparation of projects.

Machines may include:

Tool and cutter grinder

Surface grinder

Milling machines

Tool room lathes

Additionally, grinding vices and sine plates will also be used.

Measuring devices both inspection and lay-out will be used.

Marketable Skills

- 1. Students will demonstrate knowledge of machining and inspection processes.
- 2. The ability to understand mathematical computations needed in inspection and machining.
- 3. Students will demonstrate knowledge of industry safety practices.
- 4. Students will understand and implement lean philosophies to improve efficiency and eliminate waste.
- 5. Students will demonstrate the ability to communicate information and ideas verbally and in writing so others will understand.
- 6. Students will understand the need for technical drawing to aid in manufacturing processes.

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 <u>rebecca.wren@sulross.edu</u>. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing <u>address is P.O. Box C-122, Sul Ross State University, Alpine. Texas 79832.</u>

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, <u>library.sulross.edu</u>. Off-campus access requires logging in with your LobolD and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (<u>srsulibrary@sulross.edu</u>), 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, <u>library.swtjc.edu</u>. 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

20% Attendance

25% 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: No Final Exam