


Salt Lake Community College

School of Applied Technology and Technical Specialties

Course Syllabus: Manufacturing Fundamentals

- **Course Code:** TEMT 1000
 - **Credits:** 2 Credit Hours
 - **Semester:** Fall 2024
 - **Class Schedule:** Mondays and Tuesdays, 2:00 PM – 3:50 PM
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Preferred Form of Communication

Please email me if you have questions outside of class, and I will answer you promptly. In person communication outside of class can be arranged by email.

Course Description

This is an introductory course to basic procedures and machining operations encountered in the machine shop manufacturing industry. Topics include essential safety practices, SDS, basic measuring tools, and alphabet of lines, title block data, dimensions, tolerances, surface finish, and multiple-view drawings, with sectional, auxiliary and projected views.

Prerequisites

- None

Course Learning Outcomes

Students will learn and demonstrate competency in the following:

- Identify safe practices in a machine shop.
- Identify correct clean-up procedures.
- Interpreting a Material Safety Data Sheet (SDS).
- Demonstrate accurate use and reading of steel rules, micrometers, and calipers.
- Perform basic layout procedures.
- Add, subtract, multiply, and divide to solve a problem following the correct order of operations.
- Add, subtract, multiply, and divide fractions and decimals, as well as how to convert these numbers to percentages.
- Interpret blueprint title block and revision information.
- Visualize a three-dimensional part from a blueprint drawing.
- Calculate dimensions and tolerances from views shown on a blueprint.
- Identify surface finish requirements.
- Determine threading data from blueprint specifications.

- Inspect and document finish dimension using various metrology.
- Calculate taper dimensions from blueprint specifications.

Assignments:

All PowerPoints and assignments can be accessed through Canvas. Weekly class lectures will come from the PowerPoints in Canvas, and 1 short assignment based off of the PowerPoints will be required each week. In class assignments will be given at random intervals; they cannot be made up outside of class unless previously arranged prior to date of absence. Assignments will account for 10% of your grade.

Attendance

Attendance is required to successfully complete this course and will be recorded and graded. If you cannot attend a class, send me an email ahead of time and we can make accommodation for any course material and in class assignments that will be missed that day. Attendance will account for 10% of your grade.

Lab Projects

In this course, we will be doing projects that require the use of the computer lab and the machine shop lab. At times the labs will be administered to per student on an individual basis, and at times we will accomplish the labs in class groups. Most of this course's graded material will be lab assignments and projects. Lab projects will be graded according to timely completion, accuracy, and safe practices utilized. Lab projects will account for 70% of your grade.

Final Exam:

A final exam that includes concepts taught throughout the semester will be given at the end of the semester. The final exam will account for 10% of your grade.

Extra Credit:

2 assignments and 1 lab for extra credit will be made available during the semester. They will be given the same amount of points as our regular assignments and labs.

Required Materials

Students are encouraged to bring a notebook and pencil. All other materials will be provided.

Personal Protective Equipment and Shop Dress

- Closed toe shoes
- Not excessively baggy clothing
- No hats
- Safety glasses in the shop
- No loose jewelry

Grading Scale

- A: 93 – 100%
- A-: 90 – 92%
- B+: 87 – 89%
- B: 83 – 86%

- B-: 80 – 82%
 - C+: 77 – 79%
 - C: 73 – 76%
 - C-: 70 – 72%
 - D+: 67 – 69%
 - D: 63 – 66%
 - D-: 60 – 62%
 - F: 59% and below
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Code of Student Rights and Responsibilities

Your experience at the Salt Lake Community College Technical Center is important to me. You are valued as an individual, and I ask that you show that same respect to myself and other students. We want your education experience to be a safe and uplifting experience. Accommodation can be made by arrangement for any individual with disabilities. Academic misconduct in all forms will not be tolerated. Harassment, threats, and discrimination of any form will not be tolerated. The violation of these standards may result in disciplinary action and sanctions against the violator. The comprehensive SLCC Code of Student Rights and Responsibilities can viewed through the SLCC website: [Code of Student Rights and Responsibilities | SLCC https://www.slcc.edu/policies/policies/student_affairs/8.1.050.aspx](https://www.slcc.edu/policies/policies/student_affairs/8.1.050.aspx)

In short, let's all be good humans to each other!

Important Dates

- **Last Day to Add/Drop Classes:** August 28, 2024
- **Tuition Due:** September 4, 2024
- **Last Day to Drop Classes with 100% Refund:** September 10, 2024
- **Fall Break:** October 17-18, 2024
- **Last Day to Drop Classes with no Refund:** October 22, 2024
- **Thanksgiving Break:** November 27-30, 2024
- **Final Exam:** TBA for week of December 5 thru 12, 2024
- **End of Semester:** December 14, 2024