Salt Lake Technical College
SALT LAKE COMMUNITY COLLEGE

TEWT 1190 – MATH FOR WELDERS

COURSE DESCRIPTION:
Practical applications in basic math skills needed by welders in the industry. Addition, subtraction, multiplication, and division of whole numbers, fractions, decimals, metrics, and currency. Basic geometry formulas are also taught.

CREDIT HOURS: 2

REQUIRED TEXT:
Practical Problems in Mathematics for Welders, Sixth Edition, By Robert Chasan
Delmar Publishers
ISBN: 978-1-11-31359-3

COURSE OBJECTIVE:
At the completion of this course, students shall be able to:

- Perform addition, subtraction and multiplication of common fractions.
- Perform combined operations with common fractions.
- Perform addition, subtraction, multiplication and division of decimal fractions.
- Perform conversions of decimal fractions to common fractions and common fractions to decimal fractions.
- Perform mathematical equations involving tolerance.
- Demonstrate the ability to mathematically find averages and percentages.
- Demonstrate the ability to perform direct measurement using measuring instruments and the metric system.
- Demonstrate the ability to convert English measurements to metric and metric to English measurements.
- Demonstrate the ability to find the perimeters of geometric figures.
- Demonstrate the ability to measure angles.
- Perform mathematical equations to find the area of geometric figures; volume of cubes, rectangular solids, cylindrical solids, rectangular containers, cylindrica containers and complex containers.
- Perform mathematical equations to find mass of fabricated objects.
- Perform mathematical calculations to find stretch-outs of square, rectangular, circular and cylindrical shapes.
- Perform layout techniques for rectangular and odd-shaped plates.

REQUIRED ASSESSMENTS:

- Answers given on worksheets and exams are accurate with information provided in learning modules and presentations.

- A 93% and above
- A- 90% – 92.9%
- B+ 87% – 89.9%
- B 83% – 86.9%
- B- 80% – 82.9%
- C+ 77% – 79.9%
- C 73% – 78.9%
- E Below 72.9%

Attendance and Participation	10%
Homework	30%
Quizzes and Final	60%
Total	**100%**

MATERIALS: Welding Tools
Each welding student should purchase at least one of each of the following Tools prior to starting lab courses.

- #2 Pencils
- Paper
- 12” Ruler
- Protractor
- Scientific Calculator (Texas Instruments TI-30X IIs or equivalent)

MEANINGFUL CONTACT:
Students are required to have two-way meaningful contact with an instructor at least once per week. Meaningful contact should consist of classroom instruction or discussion about how the student is progressing.

Two-way meaningful contact can be:

- Face-to-face in the classroom
- Online contact
- Telephone contact between student and instructor

DEPARTMENT POLICY REGARDING RE-TAKE OF COURSES:
Students needing to repeat courses are required to have an intervention with department faculty, student services advisor and sponsoring agency representative (if required), to discuss a plan of action to better ensure successful completion of the course to be repeated. A written plan of action will be drafted and approved (signature) by all parties involved prior to re-enrollment in the course. Courses may be repeated upon this plan of action only once. If a third enrollment is necessary for course completion, the intervention will require the individuals listed above but shall also include the Associate Dean (or his designate) as well. Failure to complete a course after three (3) enrollments will result in the students’ termination from the program.

STUDY:
We suggest that the majority of the theoretical studies be completed outside of the classroom hours. This allows time to be used more efficiently pertaining to skills competencies.

STUDENT RESPONSIBILITIES:
It is your responsibility to complete all the materials as outlined in the learning modules. It is also your responsibility to ask for help when material is unclear and needs further clarification. Please maintain lab tools and equipment and clean your workstation at the completion of your lab class. Please approach the instructor with any situation or conditions that might interfere or impact your progress and success.

Mobile phones may be used in the classroom but must be on silent or vibrate mode. If you receive a call, please leave the classroom briefly. Making telephone calls and/or texting during class should be restricted for urgent or emergency purposes only. Personal electronics devices of any kind are a distraction and promote a safety concern in the welding lab. Use of these devices is not allowed in the welding lab.

INSTRUCTOR'S RESPONSIBILITIES:

The instructor(s) will, to the best of their ability, ensure that you have the materials, equipment, and items required for completing the learning modules. It is also the responsibility of the instructor to assist you in the learning process and to accomplish the goals of the program. The instructor will also monitor and help to ensure satisfactory process. The instructor will also address any issues that affect the student and program.