

Welding – Fall 2016
Course #: MFG 157, CRN 33109/33110

Instructor: Charles Biederka, Nick Borodezt
Office: Ella T. Grasso Vocational Technical School Rm. 313
E-mail: cbiederka@trcc.commnet.edu
Telephone: (860)460-8612

Class Hours: Friday 5:30-6:20PM/6:30-9:55PM Room: Grasso Welding Lab
Office Hours: By appointment

Required Text: Welding Level 1 - Fifth Edition, NCCER/Pearson Education, Inc.
ISBN-13: 978-0-13-418568-2
Welding Level 2 - Fifth Edition, NCCER/Pearson Education, Inc.
ISBN-13: 978-0-13-418564-4

Course Description:

This course is developed to provide a comprehensive overview of basic welding. Knowledge, skills and abilities will be achieved through classroom lecture and laboratory projects.

Course Objectives:

Upon completion of this course, the student should be able to:

1. Demonstrate safe behaviors applicable to a Shop environment
2. Understand basic thermal cutting processes and equipment.
3. Understand and demonstrate competency to perform mechanical base metal preparation.
4. Understand the concepts of weld quality and demonstrate competency to accurately evaluate a weld visually.
5. Understand and demonstrate competency to prepare and setup SMAW welding equipment.
6. Understand the selection and handling processes for SMAW electrodes.
7. Understand and demonstrate competency using SMAW with various joints and positions on carbon steel.
8. Understand and demonstrate competency in joint fit-up and avoiding distortion caused by welding.
9. Understand and demonstrate competency in reading welding blueprints and welding symbols.
10. Understand and demonstrate competency in preheating techniques.
11. Understand and demonstrate competency to prepare and setup GMAW welding equipment.
12. Understand the selection and handling processes for GMAW electrodes.
13. Understand and demonstrate competency using GMAW-Spray Transfer with various joints and positions on carbon steel.

Disabilities Statement:

Students with disabilities are guaranteed reasonable accommodation under the provisions of the Americans with Disabilities Act of 1992. Disclosure of a disability must be voluntary and initiated by the student. For further assistance, please contact Matt Liscum in the Office of Disability Services at 860.215.9265 or mliscum@threerivers.edu. Please note that an instructor cannot provide disability accommodations until a student provides the necessary paperwork from the college's Office of Disability Services.

Academic Integrity:

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

Plagiarism:

Plagiarism is the unacknowledged use of another person's work or ideas in your writing. It is often known as copying word-for-word. However, even paraphrasing without acknowledgement or using the ideas of peers garnered from class discussion or a study group is considered plagiarism. Whether it is conscious or unconscious, plagiarism is a serious academic offense. Your writing for this course, and any other course at TRCC, is expected to be original, and the product of your own thinking. A student who has plagiarized will receive a ZERO on his/her assignment and may be reported to the Academic Dean and/or Student Services Dean for disciplinary action.

Technology Statement:

The use of cell phones or other technological devices is not permitted during class time, unless deemed appropriate by the instructor.

Electronic Learning Portfolios:

All students are required to maintain an online learning portfolio in [Digication](#) that uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

Email:

Correspondence by email is considered a method of formal communication. Emailing an instructor is not the same as emailing or texting a friend. Please use a proper salutation, complete sentences, punctuation, proper spelling and identify yourself by name in the body of the email. **Students must use their [college issued email account](#). College issued email is the official mode of communication used by the college to contact students.**

Class Cancellation:

To determine if the college is closed, please visit the TRCC webpage at <http://www.trcc.commnet.edu/> and/or sign-up for notification through MyCommNet ALERT.

Dress and Behavior:

The laboratory portion of this course will be taking place in an industrial space which contains health and safety hazards inherent to such an environment. Proper training and personal protective equipment will be provided to facilitate safety. However, it is incumbent upon students to purport themselves in a respectful, professional and workmanlike manner. Improper behavior and/or disrespect for instructors, equipment, materials or procedures will not be tolerated. In addition, proper clothing must be worn in the laboratory at all times. Long pants (uncuffed), leather-closed-toes shoes, and outerwear of non-synthetic materials constitute proper clothing. Long hair shall be pulled back and secured. All prescribed PPE shall be worn at all times.

College Withdrawal Policy:

Course withdrawals are accepted up until the week before classes end. Withdrawal forms are available online or at the Registrar's office. The withdrawal does not have to be signed by the instructor but it is strongly advised that you speak with your instructor before withdrawing. If necessary, you can withdraw over the phone by calling the Registrar's Office at 860.215.9064. Emails and faxes are also accepted. If you are receiving financial aid, it is strongly recommended that you contact the [Financial Aid Office](#) before withdrawing. Withdrawal may affect your financial aid for current and/or future semester(s). It is your responsibility to confirm that the withdrawal has been received.

The last day to withdraw from the Fall 2016 semester is December 9, 2016

Class Attendance:

Lateness and absences will have a negative impact on your grade. This class is comprised of lecture and lab time. Classes build upon one another, and a missed class will greatly hinder your progress in the course. You can't gain the knowledge if you are not present when it is delivered.

Each student is only allowed one unexcused absence for the duration of the semester. Excused absences must be requested prior to class time, and will be considered on a case by case basis.

7% of a student's overall course grade will be forfeit for **each unexcused absence**.

Homework:

In general, formal homework will not be a part of this class. However, completion of assigned readings and review activities will be necessary in order to be successful at chapter and module exams.

Evaluation Criteria:

The following criteria will be considered in evaluating student performance:

- a. **Class Participation**
- b. **Weekly lab assignments**
- c. **Quizzes**
- d. **Midterm and final exams**

a. Class Participation

Participation in lecture discussions and lab exercises and activities in this class is required. Full participation is constituted by attentiveness, respect for class materials, instructors and fellow students, and ability to effectively follow instructions.

b. Weekly lab assignments

There will assigned lab exercises throughout the semester. Please have them completed by the scheduled due date. Late assignments are not accepted.

c. Quizzes

There will be quizzes administered at random throughout the semester. Quizzes are to be completed in the first 20-minutes of class time. **No makeup quizzes will be given.**

d. Midterm and final exams

During the semester there will be a midterm and final exam. Exams will consist of (but will not be limited to) multiple choice, short answer, true/false, matching, and practical exercises. Exams cannot be made up unless arrangements have been made with the instructor *prior* to the time of the exam.

Grade Computation:

The following is a breakdown of the final grade:

a. Class Participation	10%
b. Lab Assignments	30%
c. Quizzes	20%
d. Midterm	20%
e. <u>Final Exam</u>	<u>20%</u>
TOTAL	100%

Grading Distribution:

A	94-100	C	73-76
A-	90-93	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	0-59

Class Schedule (subject to change at instructor's discretion):

<u>Week(s)</u>	<u>Topic</u>
1	Introduction, Safety, Oxyfuel Cutting
2	Plasma, A-CAC
3	Base Metal Preparation, Weld Quality
4-6	SMAW
7	Joint Fit-up, Welding Symbols
8	Welding Symbols (cont.), Welding Blueprints
9	Midterm, Preheat
10-13	GMAW
14	Catch Up & Final Review
15	Final Exam

FALL 2016 Standard 15 Week Session

Aug 25	New Student Orientation
Aug 28	Registration deadline and last day to drop classes for full tuition refund - online (Aug 26 - in person)
Aug 29	Classes begin, Add and Drop Periods Begin
Sep 5	Labor Day - college closed
Sep 6	Last day for registered students to add a class
Sep 7	Convocation
Sep 11	Last day to drop classes and partial tuition refund
Sep 16	Constitution Day (observed) - classes in session
Sep 26	Last day to select audit option
Oct 14	Professional Day
Oct 31	Advising day (classes in session)
Nov 1	Continuing Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester Advising day (classes in session)
Nov 7	Last day to select pass/fail option, last day to submit incomplete work from Spring '16 and Summer '16
Nov 15	New Student and Non Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester, and last day to apply for spring graduation (May '17)
Nov 23	College Open - No classes in session
Nov 24-27	Thanksgiving Recess
Dec 6 & 9	Reading/make-up days
Dec 9	Last Day to withdraw from classes
Dec 16	Last Day of 15 Week Session
Dec 23	Final grades due to Registrar's Office
Dec 26	Christmas Day Observed - college closed
Dec 28	Grades available on web