

COURSE INFORMATION DOCUMENT

WELD1123 – GMAW I

Prerequisite:

Revised – 9/22/2023

CREDIT HOURS..... 3.5

CLASSROOM HOURS..... 30

LAB HOURS..... 68

TOTAL CONTACT HOURS..... 98

Instructor Contact Information:	•
• Email: rachel.staehr@yorkdukes.org	•
• Phone: 402-710-2661	•
• Office hours: 5A and 5B	•
Class Location: B10	•
Class Times:	•
Class Dates:	•
Drop Deadline: It is recommended that students receiving financial aid contact the financial aid officer prior to withdrawing from a course to determine how their aid may be affected.	• See registration, student calendar, or the HUB for information on dropping this class.

<u>Assigned Reading</u>	<u>Due Date</u>
Miller Gas Metal Arc Welding	Varies (See Time Line)
Modern Welding Ch. 1,7 & 8	

<u>Homework Assignments</u>	<u>Due Date</u>
Introduction Discussion & Safety Quiz & Syllabus Quiz	
Worksheet #1	
Worksheet #2	
Worksheet #3 & Trouble Shooting Activity	
Worksheet #4	

TIME LINE:

Classroom – GMAW Theory (30 hours)

- Class 1: Introduction, Safety, Equipment (5 hours)
- Class 2: Transfer Modes, (5 hours)
- Class 3: Shielding Gasses (5 hours)
- Class 3: Wires (5 hours)
- Class 4: Variables (5 hours)
- Class 6: Final test, hands on set-up test (5 hours)

Lab – GMAW Welding Units (68 hours)

Unit 1: T Joint (hours 1-18)

Unit 2: Square Groove (hours 19-36)

Unit 3: Tubing to Sheet Metal (hours 37-54)

Unit 4: Tubing Cluster (hours 55-72)

Unit 5: Lap Joint Spray Arc (hours 73-90)

Review, study and take lab quiz (hours 91-98)

-No course events such as field trips or speakers are planned at this time

****TIME LINE SUBJECT TO CHANGE AS NEEDED***

COURSE OBJECTIVE:

- The student will explain the theory of the Gas Metal Arc Welding process
- The student will demonstrate the **safe** operation of the Gas Metal Arc Welding process
- The student will be able to demonstrate the proper setup and operation of the Gas Metal Arc welder and related equipment
- The student will be able to gas metal arc weld carbon steel in the flat and horizontal positions on various types of joints with different modes of transfer.

REQUIRED TEXT: Miller Gas Metal Arc Welding Handbook, Prepared by Miller Electric Mfg. Co.
Copyright 2014 (No ISBN #)

On line version of Modern Welding, 12th Edition, Bowditch/Bowditch/Bowditch
Copyright 2020 ISBN 978-1-63563-686-4

REQUIRED MATERIALS:

- All PPE required for the Welding Technology Program
- All tools required for the Welding Technology Program
- Notebook
- Pen or Pencil

*All PPE and proper lab attire will be required to participate in these activities.

COURSE EVALUATION:

<u>Classroom:</u>	Participation	20%
	Set up test	20%
	Midterm	20%
	Final	<u>20%</u>
		40% of class grade

*Must get 70% or better in the theory part to be able to start lab portion

<u>Lab Units:</u>	Welding Units	80%
	Lab Quiz	<u>20%</u>
		60% of class grade

A+ - 95 to 100 Points	A – 90 to 94 Points
B+ - 85 to 89 Points	B – 80 to 84 Points
C+ - 75 to 79 Points	C – 70 to 74 Points
F (Failing) – Less than 70% (Average in Class)	

COURSE POLICIES

ATTENDANCE/ATTENTION: Regular, punctual attendance and participation is required in all credit courses and all absences will be recorded. Any class or lab session missed, regardless of cause, reduces the opportunity for learning and may affect achievement. Students are responsible for notifying the instructor of any anticipated absences. Being absent for more than 20% of class will require an attendance contract between the student and instructor.

MISSING ACTIVITIES, ASSIGNMENTS AND LATE ASSIGNMENTS: The instructor has the prerogative to decide whether the student will be permitted to make up work missed during an absence. Attendance, tardiness, missed and late assignments, etc. are subject to grade deductions at the instructor's discretion. Missed classroom exams: 10 points per day will be

deducted after student returns. Lab quizzes: must be taken by the last Thursday of the semester (2 quizzes max) and/or before starting the next lab class.

According to the US Department of Education, 1 hour of classroom time requires 2 hours of independent study by the student each week.

i.e., a 3-credit hour class requires at least 6 hours of student study each week.

WITHDRAWAL/DROP/INCOMPLETE: Instructors do not initiate drops/withdrawals. It is your responsibility to notify registration and records of your intent to drop or withdraw from a class. The instructors will not relay messages, and students who discontinue participation in class will not automatically be dropped/withdrawn. After the withdraw/drop deadline, a student may request a drop/withdraw in writing to Registration and Records. **It is recommended that students receiving financial aid contact the financial aid officer prior to withdrawing from a course to determine how their aid may be affected.** An incomplete will only be considered under extenuating circumstances and you must have good attendance to be considered for an incomplete. **Extra credit may be offered at the instructor's discretion. Each student will be given the opportunity to participate in extra credit.**

PLAGIARISM/ACADEMIC DISHONESTY: Academic integrity is one of the basic principles of education. SCC encourages and expects the highest standard of academic honesty from all students. Please note that cheating, plagiarism, or other forms of academic dishonesty are monitored and subject to disciplinary action. Plagiarism is using any material without giving credit to the source(s). Academic dishonesty will result in a student receiving a grade of "F" for the course.