

**Clarendon College**  
**WLDG 1202 Fundamentals of Gas Metal Arc (MIG)**

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**I. General Course Information**

Jay C. Anders,

Course Number: WLDG 1202

Course Title: Intro to Gas Metal Arc (MIG)

Credit Hours: 2-8-4

Recommended Prerequisite: None

Course Description: Intro to Gas Metal Arc Welding (GMAW). Includes setup and safe use of GMAW equipment as well as instruction in various basic weld joints.

End-of-Course Outcomes: Describe welding positions of basic weld joints; describe safety rules, equipment use, and basic visual inspection; and demonstrate proper welding of basic joints in the flat position.

A series of basic intellectual competencies--reading, writing, speaking, listening, critical thinking, and computer literacy--are essential to the learning process in any discipline and thus should inform any core curriculum. Although students can be expected to come to college with some experience in exercising these competencies, they often need further instruction and practice to meet college standards and, later, to succeed in both their major field of academic study and their chosen career or profession. This course will further develop the following basic intellectual competencies:

**READING:** Reading at the college level means the ability to analyze and interpret a variety of printed materials--books, articles, and documents. A core curriculum should offer students the opportunity to master both general methods of analyzing printed materials and specific methods for analyzing the subject matter of individual disciplines.

**WRITING:** Competency in writing is the ability to produce clear, correct, and coherent prose adapted to purpose, occasion, and audience. Although correct grammar, spelling, and punctuation are each a sine qua non in any composition, they do not automatically ensure that the composition itself makes sense or that the writer has much of anything to say. Students need to be familiar with the writing process including how to discover a topic and how to develop and organize it, how to phrase it effectively for their audience. These abilities can be acquired only through practice and reflection.

**SPEAKING:** Competence in speaking is the ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience. Developing this competency includes acquiring poise and developing control of the language through experience in making presentations to small groups, to large groups, and through the media.

**LISTENING:** Listening at the college level means the ability to analyze and interpret various forms of spoken communication.

**CRITICAL THINKING:** Critical thinking embraces methods for applying both qualitative and quantitative skills analytically and creatively to subject matter in order to evaluate arguments and to construct alternative strategies. Problem solving is one of the applications of critical thinking, used to address an identified task.

**COMPUTER LITERACY:** Computer literacy at the college level means the ability to use computer-based technology in communicating, solving problems, and acquiring information. Core-educated students should have an understanding of the limits, problems, and possibilities associated with the use of technology, and should have the tools necessary to evaluate and learn new technologies as they become available.

## **II. Objectives/Terminal Objectives**

All Clarendon College courses work together to meet the following objectives:

1. Establish broad and multiple perspectives on the individual in relationship to the larger society and world in which he or she lives, and to understand the responsibilities of living in a culturally and ethnically diverse world;
2. Stimulate a capacity to discuss and reflect upon individual, political, economic, and social aspects of life in order to understand ways in which to be a responsible member of society;
3. Recognize the importance of maintaining health and wellness;
4. Develop a capacity to use knowledge of how technology and science affect their lives;
5. Develop personal values for ethical behavior;
6. Develop the ability to make aesthetic judgments;
7. Use logical reasoning in problem solving; and
8. Integrate knowledge and understand the interrelationships of scholarly disciplines.

In addition, the following objectives that are specific to Intro to Gas Metal Arc (MIG) Welding will be met:

### **Learning Outcomes.**

1. Recognize and distinguish GMAW power sources and current properties.
2. Examine and identify parts of GMAW equipment
3. Identify gasses and wires utilized for various duties.
4. Compare setup of equipment for various duties.
5. Perform GMAW with solid wire.
6. Perform GMAW with Dual Shield wires.
7. Perform FCAW Flux Cored Arc Welding

## **III. Textbook and Other Required Materials**

Welding Technology Fundamentals Textbook  
Videos: Instructor Provided

#### **IV. Classroom Policy and Instructor Expectations**

Students are expected to conduct themselves in a manner that promotes a safe learning environment for all students. Students should participate in classroom and lab activities/discussions, complete assignments on time and be prompt to class.

The use of a cell phone during shop classes is restricted only to when an instructor is actively instructing the student. The student will be asked to turn off the phone during this period.

#### **V. Additional/Supplemental References**

None

#### **VI. Methods of Evaluation**

Attendance = 70%

Exams = 30%

##### **Grading**

90 - 100 points = A

80 - 89 points = B

70 - 79 points = C

60 - 69 points = D

Below 60 = F

#### **VII. Attendance Requirements**

**Attendance at all class sessions is expected of all students. This is a significant part of instilling a good work ethic for future employers. For this reason if a student must be absent for any reason he/she will be required to notify a welding instructor(s) as soon as practical for each absence and its reason. If a student is absent from class for four unexcused absences they will be placed on the “Attendance Probation List” for the Welding Program. After six unexcused absences the student will be administratively withdrawn from the entire welding program.**

<b>Attendance Percentage</b>		<b>Grade</b>
<b>90 – 100</b>	<b>=</b>	<b>100</b>
<b>80 – 90</b>	<b>=</b>	<b>90</b>
<b>70– 80</b>	<b>=</b>	<b>80</b>
<b>60 – 70</b>	<b>=</b>	<b>70</b>

**VIII. Scans/Or Core Competencies That Will Be Addressed in the Class**

Information:

Acquires & Evaluates Information

Interpersonal:

Teaches Others

Negotiates to Arrive at a Decision

Systems:

Understands Systems

Monitor and Correct Performance

Technology:

Select Technology

Applies Technology

Maintain and Troubleshoot Equipment

Basic Skills:

Reading

Listening

Thinking Skills:

Creative Thinking

Decision Making

Problem Solving

Reasoning

Personal Qualities:

Self-Management

**IX. Next Recommended Course in Sequence—N/A**

**X. Correlation to Stated Mission Goals of Clarendon College**

- A. Provide general college academic course for students who plan to enter senior colleges and universities with junior standing.
- B. Provide a classroom setting that is conducive to learning.
- C. Provide, assist, and promote the use of learning resources.
- D. Participate in and contribute to the democratic society in which we live.
- E. Acquire skills, facts, values, and attitudes necessary to function and contribute to our society.

**XI. Grievance Policy**

If you have a dispute concerning your grade or policies in this class, it is your responsibility to FIRST contact the instructor, either by e-mail or in person, to discuss the matter. Should things remain unresolved after this initial contact, please follow the procedures described in the Clarendon College Catalogue. In the vast majority of cases, the matter can be

resolved at the instructor/student level, and learning to communicate your concerns in a civilized manner is part of the college experience.

## **XII. Instructor's Contact Information and Office Hours**

My office is located in the Clarendon College Welding & Wind Center. I will be available during posted office hours, before and after class, or contact me by phone 806-669-1632. My e-mail address is [jay.anders@clarendoncollege.edu](mailto:jay.anders@clarendoncollege.edu).

**Special Accommodations:** Please see the instructor after class or during office hours if you have a disability that requires special accommodations.

### **Cell Phone & Electronic Device Policy**

Personal computers are allowed. Cell phones will be allowed only on high priority bases if they are set on silent vibrate. They should be answered in a manner that is not disruptive to the class. If a person's cell phone becomes a nuisance they may be asked to leave the class with no opportunity for returning that class period.

### **Campus Carry**

The 84th Session of the Texas Legislature passed two bills which relate to guns on the premises of college campuses:

Effective **January 1, 2016**, House Bill 910 (commonly referred to as the "Open Carry" bill) allows a Texas Concealed Handgun License holder to openly carry a holstered handgun, except on the campus of a higher education institution. The law remains unchanged that a firearm may be stored or transported in a locked privately owned or leased motor vehicle by a person who holds a license to carry.

Effective August 1, 2016, for four year Universities and Colleges, and **August 1, 2017** for Junior Colleges Senate Bill 11 (commonly referred to as the "Campus Carry" bill) allows a license holder to carry a concealed handgun while on the campus of an institution of higher education. This bill provides that, after consulting with students, staff, and faculty regarding the nature of the population and safety considerations, the Chief Executive Officer of the institution of higher education shall establish reasonable rules, regulations, and provisions regarding carrying on the campus. The established rules and regulations may not generally prohibit license holders from carrying concealed handguns on campus. Information regarding the portions of the campus where license holders may not carry, referred to as Gun Free Zones, can be found within the [Concealed Campus Carry Regulations](#).

It continues to be an offense if the license holder carries a partially or wholly visible handgun and intentionally/knowingly displays the handgun

in plain view to another person on the premises of the campus to include driveways, streets, sidewalks, parking lot, parking garage, or parking area of the institution of higher learning.

Anyone with questions or concerns regarding the Campus Carry Policy can contact the President's Office at 806-874-4808

## **Student Rights and Responsibilities**

Student Rights and Responsibilities are listed on the College website at:

<http://www.clarendoncollege.edu/Resources/Student%20Services/StudentRightsResponsibilities.pdf>

The role of Clarendon College is to encourage individuals of all ages to develop their skills and collectively they may contribute to the growth and development of this democracy. College policies, procedures, and programs provide an appropriate teaching and learning environment where each student has the freedom to learn and work.

The concept of rights and freedom, no matter how basic or widely accepted, carries with it certain responsibilities. All members of the college community, enjoy the same constitutional and civil rights guaranteed all citizens of the nation, the State of Texas, and the local community. All members of the college community have a responsibility to create an academic climate in which the freedom to learn can be enjoyed by all. To this end, certain basic regulations govern the behavior of students as members of the college community.

Violations of student conduct regulations will be handled through the Office of the Vice President for Student Affairs and/or local laws make a student subject to civil or criminal action in addition to disciplinary action by the College and the policies and regulations of the College.

### **Freedom of Expression**

The rights of free speech and peaceable assembly are fundamental to the democratic process. All members of the college community to express their views and opinions on actions or ideas, to associate freely with others, and to assemble.

Whether expressing themselves as individuals or in organized groups, members of the college community have a responsibility to express themselves responsibly, according to law, and to respect the basic educational goals of the College. Accordingly, they must respect the rights of others. Disruption of the educational process and functions of the College, or violation of law, are prohibited.

Students wishing to assemble must complete an official request with the Vice-President of Student Affairs. The Vice-President will determine the time and location of such assemblies in order to ensure that the educational process is not disrupted. The institution will not tolerate hate speech, defined as "...the insulting or 'fighting' words – those which by their very utterance inflict injury or tend to incite and provoke to acts of New Hampshire, 315 U.S. 568, 1942)

### **Freedom of Access**

Within the limits of its resources, Clarendon College shall be open to all applicants who are qualified. Clarendon College does not discriminate on the basis of race, creed, color, national origin, mental or physical handicap, sex, age, or marital status. This includes, but is not limited to, admissions, employment, financial aid, and other college practices, or procedures.

### **Freedom of Association**

Students are free to associate to promote their common interests. They have the right to seek and join organizations of their choosing so long as such are not in conflict with the educational purposes of the College. Students may join officially recognized campus organizations of their choice, within the requirements of those organizations.

### **Academic Rights of Students**

The College has the responsibility of providing a program of quality education in keeping with its mission. The College will use through campus-designed procedures against prejudiced or capricious academic evaluation. Student records are maintained on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students are responsible for being familiar with all requirements of the College Catalog, and for maintaining their grade point average.

### **Student Records**

Student records are maintained in confidence and in compliance with the Texas State Library and Archives Act. Student records are used to promote the instruction, career development, guidance, and educational planning. Under the Educational Rights and Privacy Act of 1974, Public Law 93-380, as amended, the student has access to their records as specified by that act. Student records may be released to other persons, agencies, or institutions only if a written release has been signed by the student. College staff shall have access to student records only if they have a legitimate interest in the student.

### **Student Participation in Institutional Decision-Making**

The primary route of Clarendon College students in decision-making is through participation in student organizations. Students also may be invited to serve on one of the various institutional committees. Student opinion is valued.

for making that class up.