Clarendon College
WLDG 1337 Introduction to Metallurgy

I. General Course Information

Jay C. Anders, Spring 2012
Course Number: WLDG 1337
Course Title: Introduction to Metallurgy
Credit Hours: 3-3-0

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 Introduction to Layout Fabrication will be met:

End-of-Course Outcomes

1. Understand the process of the making of metals from ore to finished product.
2. Know the effects of the welding processes on various types of metals.
3. Learn the mechanical properties of metal including hardness, ductility and machinability.
4. Emphasis on metal alloys, heat treating, and hard surfacing.

III. Textbook and Other Required Materials

RECOMMENDED:

Textbook to be announced

IV. Classroom Policy and Instructor Expectations

Students are expected to conduct themselves in a manner, which 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.

Cell phones are expected to be placed on silent ring. Students receiving a call are expected to leave the class to answer incoming calls in the hallway. NO TEXTING is allowed during class sessions. If a student's cell phone use becomes a problem they will be asked to leave the class. If the cell phone use continues to be a problem the student will be removed from the class roster.

V. Additional/Supplemental References

Computer CD (hand out Material)

VI. Methods of Evaluation

Attendance = 70%
Exams = 30%

Grade Scale:

90 - 100 = A
80 - 89 = B
70 - 79 = C
Below 70 = 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.

Attendance Percentage		Grade
90 – 100	**=**	**100**
80 – 90	**=**	**90**
70– 80	**=**	**80**
60 – 70	**=**	**70**
0 – 60	**=**	**50**

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

Resources:
- Allocates Material & Facility Resources

Information:
- Acquires & Evaluates Information
- Organizes & Maintains Information

Interpersonal:
- Participate as Team Member,
- Serve Clients/Customers
- Negotiation Skills

Systems:
- Understands Systems

Technology:
- Select Technology
- Applies Technology

Basic Skills:
- Reading
- Arithmetic
- Mathematics

Thinking Skills:
- Creative Thinking
- Decision Making
- Problem Solving
- Reasoning

Personal Qualities:
- Responsibility
- 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 Pampa 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

Special Accommodations: Please see the Instructor if you have a disability that requires special accommodations.