REEDLEY COLLEGE

I.T. DIVISION

MFG. 33A WELDING FABRICATION - MIG, TIG, INNERSHIELD

M-W 8:00 AM - 12:50 PM

INSTRUCTOR:

Mr. Studebaker

Office: Industrial Technology Bldg.-Welding, Room 23

Phone: 638-3641, ext. 3253

DESCRIPTION:

Welding Fabrication 5 units, 10 hours weekly

1. Students will design and fabricate a welding project.

- 2. Students will learn how to use both jigs and fixtures in the fabrication project.
- Students will apply the skills of Mig, Tig, FCAW, SMAW welding, oxy-acetylene cutting, and blueprint reading.
- 4. Students will fill out Bill of Materials list for a fabricated welding project.
- 5. Students will estimate both materials and lab cost for fabricated welding jobs.
- Students will learn the safety procedures as needed to work in both school and industrial shops.

EXPECTED OUTCOMES:

- 1. Students will have gained the experience of fabricating a welding project.
- 2. Students will have experience in general welding shop maintenance and repair.
- 3. Students will be able to estimate the cost of a fabricated welding job.
- 4. Students will know the correct safety procedures for working in both school and industrial shops.

REQUIRED BACKGROUND:

MFG. 32A Basic Welding,

MFG. 32B Welding Fabrication, Mig/Tig, Innershield

MIN	IMUM STUDENT MATERIALS: (Student Purchased)	Approximate cost
1.	Textbooks - GTAW, GMAW, FCAW - Minnick	
2.	GTAW, GMAW, FCAW Handbooks - Studebaker	
3.	Safety Booklet	N.C.
4.	Notebook - 3 ring and pencil	
5.	Highlight felt pen	
6.	Safety glasses	NET COLOR DE COME DE CARA
7.	Ear plugs	N.C.
8.	Gloves, helmet, goggles	N.C.
9.	Shop Coveralls	N.C.
10.	Tape measure - 16' or 20'	
	TOTAL	

HOW CLASS WILL BE CONDUCTED:

- 1. Group lectures, tours, demonstrations
- 2. Individual instruction
- 3. Shop work
- 4. Workbook, quizzes, exams
- 5. Safety program

ATTENDANCE:

Roll will be taken through the use of a time clock. Each student is expected to punch in at the beginning of each class, and out at the end of each period.

Any student missing more than 3 days per each 9 weeks of the class, without prior permission, will be counseled by the instructor and if the student misses an additional day, he or she will be dropped from the class.

You are required to find out from the instructor any material missed during absence. Tests may be made up at the instructor's discretion.

Do not leave the classroom or shop area without the instructor's permission.

GENERAL POLICIES:

You are responsible to bring required materials to class. Textbooks and notebooks will be required.

Lockers will be provided for storage of projects and required materials. Students will provide locks.

Supplies will be provided by the school for required projects. Projects to be removed from shop will require all material bills to be paid.

School policy prohibits smoking, dipping snuff, eating, and drinking in the classroom and in the lab.

Any conduct that disrupts or distracts the class or is dangerous will not be tolerated. Willful violations of any safety rule that endangers the health of yourself or others in the class or shop will result in immediate dismissal from the class.

GRADING:

1.	Fabrication project	14%
	Progress chart	8%
3.	Student Handbooks	25%
	Quizzes and exams	12%
5.	Classroom & lab participation, attendance & clean up	41%
		100%

* DROP DATE:

LAST DAY TO DROP THIS CLASS WITHOUT PENALTY WILL BE THE FRIDAY OF THE 9TH WEEK: FRIDAY, OCTOBER 16, 1998.

TEXTS: GMAW Text - Minnick; GMAW Handbook - Studebaker GTAW Text - Minnick; GTAW Handbook - Studebaker FCAW Text - Minnick; FCAW Handbook - Studebaker Safety Booklet

WEEK	TEXT	TOPIC	CHAPTER	HANDBOOK	AGENDA
GMAW					
1-2	GMAW	Process - Safety	1,2	All Questions	Demo.
3	GMAW	Mig Setup & Control	3,4,5	All Questions	Lect Demo.
FCAW					
4-5	FCAW	Process - Safety	1,2	All Questions	Demo.
6	FCAW	Equip. Setup & Control	3	All Questions	Lect Demo.
GTAW					
7-8	GTAW	Process - Safety	1,2	All Questions	Lect Demo.
9	GTAW	Equipment	3	All Questions	Lect Demo.
10	GTAW	Shielding Gases	5	All Questions	Lect Demo.
FCAW					
11	FCAW	Shielding Gases - Filler Materials	4,5	All Questions	Lect.
12	FCAW	Procedure and Techniques	7	All Questions	Lect Demo.
GMAW					
13-15	GMAW	Welding CS, SS, Al.	8,9,10	All Questions	Lect Demo.
16-17		f Materials Sheets ting Fabrication Jobs		ts Sheets ts Sheets	Lect. Lect.
18	Review	& Lab Clean up			Classroom & Lab

WELDING TEXT ASSIGNMENTS:

Chapters - GMAW 1,2 3,4,5	Date to be completed & turned in Aug. 26 Sept. 9
Chapters - FCAW 1,2 3	Sept. 23 Sept. 30
Chapters - GTAW 1,2 3 5	Oct. 14 Oct. 28 Nov. 4
<u>Chapters - FCAW</u> 4,5 7	Nov. 18 Dec. 2
<u>Chapters - GMAW</u> 8,9,10	Dec. 9

Final day to turn in any book assignments is December 9.

^{*}Any assignments turned in up to <u>one</u> week <u>late</u> will only receive 50% credit for assignment. Any assignment more than <u>one</u> week late will receive <u>no</u> credit.

MFG. 33A SEMESTER REQUIREMENT FOR LAB AND LECTURE

Classroom/Text Assignments			Points
GMAW			
Chapters 1,2 Chapters 3,4,5 Chapters 8,9,10			106 192 164
FCAW			
Chapters 1,2 Chapters 3,4,5 Chapter 7			117 147 52
GTAW			
Chapters 1,2 Chapters 3,5 Quizzes-Mig 50 pts., Tig 50 pts., Metals 50 pts., Bill of	, FCAW 50 pts., Gases 50 pts., Materials 100 pts., Safety 100	nta	152 315 450
Final Exam	Materials 100 pts., Salety 100	prs.	150
and the said Section 2.5%	(TOTAL	1,845)	
Welds from Progress Chart:			
Inner shield # 110-114 Mig Alum. # 115-118 Mig # 81-88 Tig # 89-109 Fabrication Project			100 100 100 100 725
	(TOTAL	1,125)	
	(101mL	1,123,	
Classroom & Lab Participation Follow instructions and works			550
with other students			550
Attendance			
Attendance Deduct 25 pts. for each abse			300
Time clock usage - 40 pts @ 16 we	eeks		640
Weekly clean-up - 20 pts @ 16 we	eks		320
End of semester clean-up	(TOTAL	2,035)	225
		TOTAL	5,005

Listed above are the total number of all possible points that can be earned. The following percentages are needed to earn the respective grades:

4500 to 5000 - 90% = A 4000 to 4499 - 80% = B 3500 to 3999 - 70% = C 3000 to 3499 - 60% = D

*Extra points may be earned during the semester by attending field trips, doing a tech. report, or shop maintenance, outside of scheduled class or lab time. Maximum of 10% of the <u>Grand Total Points</u> (500 points) can be earned.