

**Course Outline**

**COURSE:** DRLT 231                      **DIVISION:** 50                      **ALSO LISTED AS:**

**TERM EFFECTIVE:** Fall 2016                      **Inactive Course**

**SHORT TITLE:** WELDING LIGHT GAUGE

**LONG TITLE:** Welding Light Gauge

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
1.5	1	Lecture:	6	6
		Lab:	30	30
		Other:	0	0
		Total:	36	36

**COURSE DESCRIPTION:**

This course is a continuation of Welding I (DRLT 230). Topics include welding safety, concepts, process, symbols, and certification performance. This course has the option of a letter grade or pass/no pass.

**PREREQUISITES:**

Completion of DRLT 230, as UG, with a grade of C or better.

**COREQUISITES:**

**CREDIT STATUS:** C - Credit - Degree Non Applicable

**GRADING MODES**

L - Standard Letter Grade

P - Pass/No Pass

**REPEATABILITY:** N - Course may not be repeated

**SCHEDULE TYPES:**

02 - Lecture and/or discussion

03 - Lecture/Laboratory

04 - Laboratory/Studio/Activity

**STUDENT LEARNING OUTCOMES:**

1. Explain basic theory in safety and welding techniques used for each welding process

Measure: research paper, exams and performance testing

PLO: 7, 1, 2, 3, 6

ILO:

GE-LO:

Year assessed or anticipated year of assessment: 2014

2. Identify welding polarities and related symbols

Measure: research paper, exams and performance testing

PLO: 7, 1, 2, 3, 6

ILO:

GE-LO:

Year assessed or anticipated year of assessment: 2014

#### PROGRAM LEARNING OUTCOMES:

1. Attain journey level skills needed to be successful in residential and commercial construction.

#### CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Inactive Course: 11/28/2016

Out-of-class assignments: For each topic, the student will read chapters and do the homework assignments at the end of the those chapters.

6 lec/5 lab Hours Welding safety and safety equipment

Welding polarities

Light gauge welding

SLO: The student will set up and demonstrate safe procedures for welding and do light gauge welding. The student will analyze different horizontal welding positions on job-sites.

Assignments: Read the chapters covered in the lecture and answer the study guide question on the assigned subject. Locate and read in the text or online regarding welding setup, safe procedures for welding, and welding polarities. Do light gauge welding.

4 lec/4 lab Hours SMAW process

FCAW process

SLO: The student will safely setup and perform SMAW process welding. The student will safely setup and perform FCAW process welding.

Assignments: Read the chapters covered in the lecture and answer the study guide question on the assigned subject. Safely perform SMAW process welding and FCAW process welding. Identify different uses of SMAW and FCAW methods used on job-sites.

4 lec/4 lab Hours Electrode identification

Preparing joints

SLO: The student will identify and evaluate electrodes and prepare joints.

Assignments: Read the chapters covered in the lecture and answer the study guide question on the assigned subject. Produce neat, strong welds on joints.

5 lec/4 lab Hours Weld symbols

Welding certification

SLO: The student will identify weld symbols and perform welding tasks to obtain welding certification.

Assignments: Read the chapters covered in the lecture and answer the study guide question on the assigned subject. Identify weld symbols and perform welding tasks to obtain welding certification.

2 lec/1 lab Hours Final examination and term project

#### METHODS OF INSTRUCTION:

12/5/2016

- A. Lecture and discussion
- B. Visual aids
- C. Demonstrations
- D. Group hands-on exercise
- E. Individual hands-on exercise
- F. One-on-one hands-on instruction

**METHODS OF EVALUATION:**

CATEGORY 1 - The types of writing assignments required:

Percent range of total grade: 10 % to 30 %

Written Homework

Reading Reports

Lab Reports

Essay Exams

Term or Other Papers

If this is a degree applicable course, but substantial writing assignments are NOT appropriate, indicate reason:

Course primarily involves skill demonstration or problem solving

CATEGORY 2 - The problem-solving assignments required:

Percent range of total grade: 10 % to 40 %

Homework Problems

Field Work

Lab Reports

Quizzes

Exams

CATEGORY 3 - The types of skill demonstrations required:

Percent range of total grade: 20 % to 70 %

Class Performance/s

Field Work

Performance Exams

CATEGORY 4 - The types of objective examinations used in the course:

Percent range of total grade: 10 % to 30 %

Multiple Choice

True/False

Matching Items

Completion

CATEGORY 5 - Any other methods of evaluation:

Percent range of total grade: 0%

**REPRESENTATIVE TEXTBOOKS:**

Required:

UBC International. Welding and Cutting. U.S.A.: UBC International. This is a standard textbook used in the Industry. Or other appropriate college level text.

Reading level of text, Grade: 10 Verified by: dvt

**ARTICULATION and CERTIFICATE INFORMATION**

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Not Transferable

UC TRANSFER:

Not Transferable

**SUPPLEMENTAL DATA:**

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: A

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000507786

Sports/Physical Education Course: N

Taxonomy of Program: 095280