Assessment: Course Four Column

SPRING / SUMMER 2016

El Camino: Course SLOs (IND) - Welding

ECC: WELD 10A:Introduction to Shielded Metal Arc Welding (SMAW)

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 - Students will be able to demonstrate the safe set up and operation of welding equipment using all applicable personal protective equipment. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Spring 2015) **Input Date:** 08/19/2014	**Exam/Test/Quiz -** Students will take a multiple choice written safety examination after an introduction and extensive review of personal protective equipment, shop safety dangers and safe shop practices, proper use of hand tools, power tools, shop equipment and safety requirements for the course and shop lab exercises/work **Standard and Target for Success:** Based on Mastery. This is a pass-fail outcome. All students are expected to master the concept. Some students will accomplish the objective on the first try, others may require multiple attempts. This outcome is foundational and required for students to progress in the course		
	Exam/Test/Quiz - Students will take a multiple choice written safety examination after an introduction and extensive review of personal protective equipment, shop safety dangers and safe shop practices, proper use of hand tools, power		

Course SLOs	Assessment Method Description	Results	Actions
	tools, shop equipment and safety requirements for the course and shop lab exercises/work **Standard and Target for Success:** Based on Mastery. This is a pass-fail outcome. All students are expected to master the concept. Some students will accomplish the objective on the first try, others may require multiple attempts. This outcome is foundational and required for students to progress in the course		
SLO #2 - Safe operation of manual and semi-automatic base metal cutting tools. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 08/19/2014	**Performance -** Students will demonstrate their abilities to identify and safely operate/manipulate various types of hand tools and cutting equipment. **Standard and Target for Success:** 75% of the students will demonstrate the ability to identify and safely operate/manipulate various types of hand tools and cutting equipment at Mastery Level 3. (100-75 % Assignment/Assessment possible) Mastery Level 3 Students will be able to identify and safely operate/manipulate various types of hand tools and cutting equipment through an administered safety exam. (74-65 % Assignment/Assessment possible) Partial Mastery 2 Partially is able to identify and safely operate/manipulate various types of hand tools and cutting equipment		

Course SLOs	Assessment Method Description	Results	Actions
	through an administered safety exam.		
	Exam/Test/Quiz - 75% of students will achieve a 100% on the safety examination on the first attempt and, after further review, class discussion, demonstrations and instruction, 100% of students will achieve a 100% on the safety examination. A 100% on the safety examination will be required prior to working in the weld shop/lab **Standard and Target for Success:** 100% compliance is required	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met 12 appeared to have a mastery of the information, level 4, 90% or higher. 8 showed a strong understanding; level 3, 80% - 89% 6 had an basic understanding; level 2, 70% - 79% 2 fell short of understanding; level 1, below 70% (10/07/2016) **Faculty Assessment Leader:** Renee Newell	**Action:** We are constantly looking to improve our delivery and depth on safety (10/07/2017) **Action Category:** Teaching Strategies
SLO #3 - Students will have a basic understanding how heat affects their weldment. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Spring 2017) **Input Date:** 08/19/2014	**Performance -** Demonstrate different heat input effects on a T-joint by running different sized multi-pass fillet welds on opposing sides. **Standard and Target for Success:** 90% of students should be able to make the correlation between heat input and distortion in the T-joint due to the practical example presented to them through the project work.		

ECC: WELD 10B:Intermediate Shielded Arc Metal Welding (SMAW)

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 - Welding students will produce quality welds utilizing various welding techniques. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Spring 2015) **Input Date:** 08/19/2014	**Performance -** Using destructive and non-destructive testing methods, a practical exam weldment will be tested per AWS D1.1 **Standard and Target for Success:** • 1= Below Average • 2 = Average • 3 = Above Average • 4 = Excellent Since this is a intermediate class I would only expect 20% to obtain a score of 4, 75% to score average or above and 5% to be below average		
SLO #2 - Students will understand Blueprint symbols and their relationship to the weldment. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 08/19/2014	**Exam/Test/Quiz -** Using drawings & prints, students will be tested on their understanding of symbols and the relationship to fit-up or welding process **Standard and Target for Success:** I estimate the 70% of the class should be able to do this at Mastery Level 3. Mastery Level 3: Students could do the assignment without asking for help. Partial Mastery Level 2: Students could almost do this assignment, but required a minor amount of help to set-up or solve the problem. Non-Mastery Level 3: Students required a major amount of help to do the assignment.	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met Of the 24 people tested, 6 appeared to have a mastery of the information, level 4, 90% or higher. 8 showed a strong understanding; level 3, 80% - 89% 6 had an basic understanding; level 2, 70% - 79% 4 fell short of understanding; level 1, below 70% (10/07/2016) **Faculty Assessment Leader:** Renee Newell	**Action:** to support better understanding of symbols and print reading we need better support material for the "hands on" style of learning (10/07/2017) **Action Category:** Program/College Support
SLO #3 - Student will exhibit knowledge in electrode identification,	**Exam/Test/Quiz -** Multiple choice examination provided in the context		

Course SLOs	Assessment Method Description	Results	Actions
weldability of metals, joint design and power sources. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Spring 2017) **Input Date:** 08/19/2014	of first eight week quizzes and the midterm exam. **Standard and Target for Success:** It is expected that 85% of students will score 75% or higher in quizzes and tests regarding this SLO.		

ECC: WELD 10C:Advanced Certification and Career Preparation Lab

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 - Student will perform destructive test on a qualification plate exam(guided bend tests). **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Spring 2015) **Input Date:** 08/19/2014	**Performance -** Using shop equipment, coupon cutter, grinder and hydraulics test bender, student will perform guided bend test on 1" V-groove plate. **Standard and Target for Success:** This is a pass-fail outcome. All students are expected to master the concept. Some students will accomplish the objective on the first try, others may require multiple attempts. This outcome is foundational and required for students to progress in the course		
SLO #2 - Students will have working knowledge of manual and semi-automatic tooling used in industry. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 08/19/2014	**Performance -** students must cut and fit-up their tests plates using hand tools and semi-automatic equipment. They are required to properly set-up their welding machines to practice and test. **Standard and Target for Success:** This is an advance class therefore, students able to complete the task correctly without any help, level 3. 3% of the students will meet this level. Students need a minor amount of help or hints to complete the task, level 2. 95% of the students must meet this level or a higher level. Anything below this; Students need a major amount of help to complete the task, level 2. No student should meet this level.	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met Of the 20 people tested, 4 appeared to have a mastery of the information, level 3 16showed a strong understanding; level 2, 0 had an basic understanding; level 1 (10/07/2016) **Faculty Assessment Leader:** Renee Newell	**Action:** we fell short of 3% on the top level but met the requirement overall. An aid in lab would help to reinforce the practices needed for a greater number of students to be at mastery level (10/07/2017) **Action Category:** Program/College Support
SLO #3 - Student will safely operate equipment and exhibit shop safety	students will safely set-up & utilize common weld industry equipment,		

Course SLOs	Assessment Method Description	Results	Actions
throughout course. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Spring 2017) **Input Date:** 08/19/2014	including various cutting equipment. **Standard and Target for Success:** Due to the advance nature of the course, 85% of students will achieve a 100% on the safety examination on the first attempt and, after further review, class discussion, demonstrations and instruction, 100% of students will achieve a 100% on the safety examination. A 100% on the safety examination will be required prior to working in the weld shop/lab		

ECC: WELD 15 :Basic Weldng for Allied Fields

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Welding Concepts - Students will be able to demonstrate basic knowledge of welding concepts. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Summer 2015) **Input Date:** 11/29/2013	**Exam/Test/Quiz -** A test with select questions on the effects of overheating, electrode angle, arc length, operating characteristics of flux covered electrodes was given. These particular questions were highlighted to determine basic knowledge of weld concepts. **Standard and Target for Success:** Students are able to pass the test with an 90% or higher; level 4, mastery level. Minimum of 50% of the class should meet this level. Students are able to pass the test with an 80% or higher; level 3, strong understanding. Minimum of 70% of the class should meet this level or get a higher level. Students are able to pass the test with an 70% or higher; level 2, basic understanding. Minimum of 80% of the class should meet this level or get a higher level. Students are unable to pass with a 70% or higher; level 1, fell short of understanding. Maximum of 20% of the class should be at this level.		
	Performance - students will safely set-up & utilize common weld industry equipment, including various cutting equipment. **Standard and Target for Success:** Due to the advance nature of the course. 85% of students will achieve a 100% on the safety examination on the first attempt and, after further		

Course SLOs	Assessment Method Description	Results	Actions
	review, class discussion, demonstrations and instruction, 100% of students will achieve a 100% on the safety examination. A 100% on the safety examination will be required prior to working in the weld shop/lab		
SLO #2 Safe Setup & Operation - Students will be capable of the safe set up and operation of welding equipment. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 11/29/2013	**Multiple Assessments -** written exams and practical applications will apply to gauge safe set up and operation **Standard and Target for Success:** 75% of students will achieve a 100% on the safety examination on the first attempt and, after further review, class discussion, demonstrations and instruction, 100% of students will achieve a 100% on the safety examination. A 100% on the safety examination will be required prior to working in the weld shop/lab	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met This is a pass-fail outcome. All students are expected to master the concept. 97% of students are consistent in maintaining this objective in a consistent manner, others may require multiple reminders and demonstrations. This outcome is foundational and required for students to progress in the course (10/07/2016) **Faculty Assessment Leader:** Renee Newell	**Action:** more physical demonstrations need to be implemented into our lecture time (10/07/2017) **Action Category:** Teaching Strategies
SLO #3 Welding Process Selection - Capability to choose an electrode or process that suits the metal thickness, joint fit up, and alloy composition. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Summer 2017) **Input Date:** 11/29/2013			

ECC: WELD 28 :American Welding Society (AWS) D1.1 Certification Test Preparation

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Preparing for Certification Exams - Students will be able to locate and use charts, index and table of contents to answer open book questions to prepare for the exam. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2013-14 (Fall 2013), 2014-15 (Spring 2015) **Input Date:** 11/29/2013	**Exam/Test/Quiz -** Given a timed test allowing 3 minutes for each multiple choice question, students should be able to successfully locate and answer D1.1 Code questions at the expected passing rate of 70%. **Standard and Target for Success:** For a timed test allowing 3 minutes for each multiple choice question, the expected passing rate is 70%, the minimum pass rate for the LA City written practice exam.		
SLO #2 D1.1 Written Exam Prep - At the completion of this course, students will be prepared to take the written exam for their LA City D1.1 Structural Steel certification. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 11/29/2013	**Exam/Test/Quiz -** Student will be prepared to take a 30 minute multiple choice closed book exam and a 1 hour multiple choice open book exam for the Department Building and Safety La D1.1. This is a pass/ no pass exam at a marker of 70% **Standard and Target for Success:** Students are able to pass the test with an 70% or higher; mastery level. Minimum of 80% of the class should meet this level. Students are unable to pass with a 70% or higher; will fall short of passing and should not pay to take LADBS exam. Maximum of 20% of the class should be at this level.	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met 2016 had a 100% passing rate but only 99% of class took the exam. (10/07/2016) **Faculty Assessment Leader:** Renee Newell	**Action:** I have a very strict format that I includes practice exams every class that allows enough time to review before the end of class. (10/07/2017) **Action Category:** Teaching Strategies
	Exam/Test/Quiz - The Los Angeles Department of Building & Safety will come and administer the written exam portion of the LA City		

Course SLOs	Assessment Method Description	Results	Actions
	Structural Steel certification **Standard and Target for Success:** 90% success rate of passing this exam at 70% correct answers		
SLO #3 Welding Procedure Specifications - Capability to process Welding Procedure Specifications (WPS), which provides direction to the welder or welding operators for making sound and quality production welds as per the code **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Spring 2017) **Input Date:** 11/29/2013	**Multiple Assessments -** students will be capable of finding tables and figures to support writing Work Procedure Specifications(WPS) **Standard and Target for Success:** 70% will be capable of finding tables and figures to support writing Work Procedure Specifications(WPS). The other 30% will need more training to understand the code and where to find supporting documentation		

ECC: WELD 40B:Intermediate Gas Tungsten Arc Welding (GTAW)

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 - Safely set up weldment and GTAW equipment. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Spring 2015) **Input Date:** 08/19/2014	**Exam/Test/Quiz -** Students will take a multiple choice written safety examination after an introduction and extensive review of personal protective equipment, shop safety dangers and safe shop practices, proper use of hand tools, power tools, shop equipment and safety requirements for the course and shop lab exercises/work **Standard and Target for Success:** This is a pass-fail outcome. All students are expected to master the concept. Some students will accomplish the objective on the first try, others may require multiple attempts. This outcome is foundational and required for students to progress in the course		
SLO #2 - Correctly adjust welding parameters to produce quality weldments in and out of position. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 08/19/2014	**Performance -** Examine weldments and quiz student on what adjustments could be made to improve quality or eleviate discontinueties **Standard and Target for Success:** I estimate the 70% of the class should be able to do this at Mastery Level 3. Mastery Level 3: Students could do the assignment without asking for help. Partial Mastery Level 2: Students could almost do this assignment, but required a minor amount of help to set-up or solve the problem. Non-Mastery Level 3: Students required a major amount of help to do the assignment.	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met Of the 14 students who did this lab, 9 students (roughly 70%) were able to do this at Mastery Level 3 and 4 students (roughly 28%) were able to do this at Mastery Level 2, needing reminders on proper adjustment, 1 student couldn't get his rythem, therefore had difficulty adjusting parameters to make up for this disadvantage (10/07/2016) **Faculty Assessment Leader:** Renee Newell **Faculty Contributing to Assessment:** Jonathan Benevente	**Action:** Newer equipment has technology that bolsters the talent of the welder. It would help prepare our students for industry if we updated our GTAW machines to at least have 40% reflecting the newest technology since these machines are commonly seen (10/07/2017) **Action Category:** Program/College Support

Course SLOs	Assessment Method Description	Results	Actions
SLO #3 - Produce GTAW weldment according to administered blueprint. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2017-18 (Fall 2017) **Input Date:** 08/19/2014			

ECC: WELD 40C:Advanced Gas Tungsten Arc Welding (GTAW)

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 - Apply the proper safety procedures and precautions required when working with GTAW. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 08/19/2014	**Exam/Test/Quiz -** Students will take a multiple choice written safety examination after an introduction and extensive review of personal protective equipment, shop safety dangers and safe shop practices, proper use of hand tools, power tools, shop equipment and safety requirements for the course and shop lab exercises/work **Standard and Target for Success:** Safety exam is given first day of class. It is reinforced throughout semester and given until passed at 100%. All student met mastery level		
SLO #2 - Use the appropriate equipment and materials to develop the welds and weld joints illustrated on a job sheet. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 08/19/2014 **Comments::** Replaced cancelled 40A; switched timeline with 40A SLO #2	**Exam/Test/Quiz -** Students will take a multiple choice written safety examination after an introduction and extensive review of personal protective equipment, shop safety dangers and safe shop practices, proper use of hand tools, power tools, shop equipment and safety requirements for the course and shop lab exercises/work. **Standard and Target for Success:** Standard and Target for Success Based on Mastery. This is a pass-fail outcome. All students are expected to master the concept. Some students will accomplish the objective on the first try, others may require multiple attempts. This outcome is foundational and	**Semester and Year Assessment Conducted:** 2015-16 (Spring 2016) **Standard Met? :** Standard Met Of the 17 students taking the exam, 10 students (roughly 60%) were able to do this at Mastery Level 3 and 6 students (roughly 35%) were able to do this at Mastery Level 2 utilizing more than 2 sets of test plates. And 1 student failed because of bad attendance. (10/07/2016) **Faculty Assessment Leader:** Nick Colin **Faculty Contributing to Assessment:** Bruce Tran **Related Documents:** weld40crubric.pdf	**Action:** In this next cycle I will administer a midterm class performance test. This action will identify the discontinuity and give the student an earlier detection. (10/07/2017) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	required for students to progress in the course.		
SLO #3 - Produce a quality "out of position" weldment and adjust his welding parameters accordingly. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Spring 2017) **Input Date:** 08/19/2014	**Performance -** Students will take a performance examination and be graded on the performance of GTAW on ferrous and nonferrous alloy, welding various joints in all positions. And assemble torch set up, adjust machine for proper current, amperage and gas flow pressures required to produce weldments meeting industry standards. **Standard and Target for Success:** Students should produce weldments with 90% accuracy. This 90% is based on Flat Position Bead, T Fillet, Butt Weld, Lap Weld and Corner Weld.		