Las Positas College
PROGRAM PLANNING UPDATE (Instructional) AY 2015-2016

Name of Program	Division	Author(s)
Welding Technology	STEMPS	Scott Miner – WLDT Instructor

INSTRUCTIONS:

1. This Program Planning Update covers the academic years 2012-2013 and 2013-2014.
2. The planning should be for the academic year 2015-2016.
3. Use the Save As feature in Word to save this template with your program name, so that you do not overwrite the original template. Please use your program's catalog rubric and this format when naming your document:

   Rubric INS PPU 15_16

   e.g., ESL INS PPU 15_16
4. If the document displays in large type with only File, Tools, and View tabs at the top of the page, select **View, Edit Document**. You will then be able to type where it says "Click here to enter text" and you will be able to click on the check boxes to select them.
5. In each section, click in the box under the instructions and fill in your information. The box will expand as you type. If a section is not pertinent to your program enter N/A in the box; do not leave it blank.
6. When you have completed the form, run the spell-checker (**click inside the text in the first box**, then click on the Review tab and find Spell-Check in the far left corner of the ribbon).
7. Please address your questions to your Program Review Committee representatives or the PR Chair Karin Spirn. Concerns, feedback and suggestions are welcome at any time to PRC representatives or co-chairs.
8. Instructions for submitting your Program Planning Update will be available at the start of the fall semester.

I. STUDENT LEARNING OUTCOMES

Review of academic years 2012-13 and 2013-14

SLO Assessment Review

Review your program's SLO assessment results through spring 2014 and respond to the following questions.

1. Discuss how assessment results indicate success in student learning. Identify results that indicate a need for improvement.

Assessment results indicate incredible success in the area of students who demonstrate safety awareness in the welding workplace. Even though the department logs in over 10,000+ hours of student work each semester, we have had only one serious injury in recent history of 20 years or more. Welding utilizes many tools and equipment, if used correctly, can produce productive results. These same tools can also hurt if used improperly. The department goal is zero lost time accidents. Considering we start with people that have little or no experience working with metal, and produce a certified welder in 18 weeks is a great accomplishment. Making sure they do not get hurt in the 140 hours of training is job one. As such we spend an entire week on safety at the outset of the class, and the results speak for themselves. Only on a rare occasion will we pass out even a band aid, and usually that is because someone had a hole in their glove they did not notice.

Results that indicate a need for improvement include our Program SLO to pass an industry standard weld test. We have toughened up the acceptance criteria on the destructive tests we perform on student test plates to more closely conform to American Welding Society industry standards. As such, some students have struggled to make it over the higher bar. As a result of the higher standards we have seen a decrease in success from 5-10% based upon the specific process, test and position. One thing that has clearly added to the difficulty for students to achieve their overarching goals is the issue of course repeatability. Welding is a task that involves visual acuity, physical fitness, stamina, manual dexterity, hand-eye coordination and hearing to be successful. Finding people that are "A+" in all those characteristics is a tall task. As such, students lacking in one or more areas to varying degrees require more time to practice and perfect their skills. The course repeatability issue has trimmed back or eliminated the ability of many students to take their skills from good to great. Adding time to existing lab courses that are already 6 hours/week is not practical. Adding another course or two in weak areas seem to be a more viable option.

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2. Discuss how distance education courses assessment results compare to face-to-face courses, if applicable? (*Respond to this question if your program has distance education courses*.)

N/A

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3. Discuss how your discipline, or someone in your discipline, made changes in pedagogy as a result of SLO assessment results.

As a general reaction to the lower passing scores on the industry standard welded test plates, the instructors in the department have been trying to introduce the mock testing earlier in the semester. In the past, other joint configurations as well as increased variety and different electrodes or filler materials would have been used. Focus on the more difficult tasks and spending more time on those should show increased success. The ability to provide more material in a "ready to weld" format will also increase success.

This concept is especially true in the pipe welding classes where the total time from prep to complete weld can be from 6-12 hours of lab time depending on the position, diameter and wall thickness. The lab final exam for the pipe welding classes typically takes 2 weeks(6 hrs/each) to complete. As such, practice time is critical to ensure success. Increasing time working on the most difficult aspects is where the effort should be spent. The idea is, if you can weld the hard part, you can weld the easy part. Focus on the hard part, the easy part comes along by default.

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4. Give an example of a change in the number of units and/or lab hours based on assessment data, if applicable.

None at this time, but it may be an area of future consideration. Assessment data would be the source of decision making.

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5. Did your program discover the need for additional resources (for AY 2015-16) based on the assessment results? YES X NO ☐

If yes, please explain.

We need to make more welds in lab classes to increase our success rate on industry standard tests. To make more welds requires an incremental increase in the amount of compressed gasses (Argon, Carbon Dioxide, Oxygen, Acetylene) that we use. Furthermore, the commodity cost of the gasses continue to increase as well.

SLO Process

1. Describe how your program reaches consensus when writing student learning outcomes that are used in multiple sections.

My program offers only one section of each course. ☐

Our program reaches consensus by evaluating the data from SLO assessments, instructor's observation and experience from the classroom or lab environment as well as the achievement level of our students on standard industry tests. All the instructors and staff meet once a semester, near or before the outset, and reflect on the past semester or year. Any adjustments or a change to our teaching/learning strategy is agreed upon at that time. This discussion also includes similar course sections taught by different instructors and plans to keep what we do consistent across all sections, to all students. We use American Welding Society Specification EG 2.0 – 2006, *Guide for the Training of Welding Personnel: Level 1 Entry Welder* as a basis for what we do.

2. Describe how your program reaches consensus when developing and evaluating assessment results for student learning outcomes that are used in multiple sections.

My program offers only one section of each course. ☐

Our program reaches consensus by evaluating the data from SLO assessments, instructor's observation and experience from the classroom or lab environment as well as the achievement level of our students on standard industry tests. All the instructors and staff meet once a semester, near or before the outset, and reflect on the past semester or year. Any adjustments or a change to our teaching/learning strategy is agreed upon at that time. This discussion also includes similar course sections taught by different instructors and plans to keep what we do consistent across all sections, to all students. We use American Welding Society Specification EG 2.0 – 2006, *Guide for the Training of Welding Personnel: Level 1 Entry Welder* as a basis for what we do.

3. What methods does your program use for documenting SLO related discussions? Check all that apply.

Program emails ☒
Program meeting minutes/agendas ☒
Blackboard/other website ☐
Other (please describe): ☒

American Welding Society Specification EG 2.0 – 2006

Guide for the Training of Welding Personnel: Level 1 Entry Welder

WELD-ED – Welding Technician National Core Curriculum, Student Learning Outcomes for Postsecondary Welding Edication (2011)

II. PROGRAM ANALYSIS

Review of academic years 2012-13 and 2013-14

Review the student data provided by the Office of Institutional Research and any additional data your program has collected. Then respond to the sections below.

A. Data Review

If applicable, summarize any ***changes*** in your program's data since the Annual Program Review of 2011-12 or observed significant trends that will affect program planning or resource requests.

NOTE: Only include changes that affect student learning, program planning or resource requests.

Success rates have dropped off in the courses during the past year by about 5%. Total headcounts increased by about 10% with more students interested in the subject matter. The ratio of headcount of females to males increased slightly during the period. There was clearly a decrease of older students during the study period seeing the percentage drop from 11% to 6%, most likely affected by repeatability issues. Both the African American (2%) and Latino (10%) headcounts increased during the period with the quantity of White (12%) students decreasing. WLDT experienced a 10% increase in the amount of full-time transfer students, while at the same time seeing a decrease in the amount of continuing students by about the same amount. WLDT students desire to transfer increased by about 6% during the period. The program saw an almost 10% increase in freshman students during the study period. Both the success rate and course completion dropped 5-7%. The fill rate for the classes has changed from 115% to 95% which has caused the productivity figures to drop as well from around 500+ to around 450.

B. Program-Set Standard for Successful Course Completion Rates

Your program-set standard for successful course completion rates (i.e., number of grades of 'A', 'B', 'C', 'CR', and 'P' divided by total grades) is calculated by averaging successful course completion rates for your program over a five-year period and then multiplying that result by 95%.

In order to determine if you have achieved your program-set standard for successful course completion rates for a given year (e.g., 2012-13), you will need to assess if your program met or exceeded 95% of the previous 5-year average (i.e., 2007-08 through 2011-12) for your program; these calculations are done for you (*see links below*).

1. What was your program-set standard for successful course completion rates in 2012-13 and 2013-14?

	Program-Set Standard for successful course completion	**Did you meet your program-set standard? (Yes or No)**

2012-13	http://tinyurl.com/mmfwqfe	Yes
2013-14	http://tinyurl.com/q6dah55	No

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2. If your program did not meet your program-set standard, discuss possible reasons and how this may affect program planning or resource requests.

There are a number of reasons why our set standard was not met. First, we are assimilating two new Adjunct instructors into the fold and trying to bring them up to speed on the how, what, who of the department. Secondly, we have implement new, more difficult industry standards for our testing and assessments. Our full time instructor became an American Welding Society (AWS) Certified Welding Inspector (CWI) during the summer of 2013. As part of the certification process, it was determined that some our acceptance criterion for welding tests was easier than the actual industry criteria. When we toughened up the acceptance criteria, the number of people passing the assessment decreased.

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C. Curriculum Review

1. Review your program's current curriculum. If applicable, describe any internal or external impacts which will affect your curriculum plans for 2015-16.

We currently have one Certificate of Achievement and one Associates Degree in Welding Technology. We currently have 20 unique courses on the books with most of the classes having a lab component. The welding department offers classes in the morning, afternoon, evening, and Saturday classes. The welding lab is generally open between 40-60 hours per week depending upon the specific series of classes offered during a semester. We are planning to update many of the course outlines as well as revisions to the Degree and Certificate to remove some of the courses that the college no longer offers.

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D. Human Resources

1. Have there been changes in the number of full-time or part-time faculty associated with your program since the Annual Program Review of 2011-12? If yes, briefly describe the changes.

There have not been any changes to the quantity of people or hours assigned to the Full and Part-Time Staff. There have been noticeable changes to the work activities of the staff that support Welding and Automotive. Both of the staff members consistently perform above and beyond the call of duty. The time that each of the staff members spends in the department is invaluable. The Full-Time staff member attended a regional WELD-ED week-long summer staff development activity on welding and cutting processes. The 10 month Part-Time staff member worked, on his own, this summer to take the American Welding Society, Certified Welding Inspector exam. Both staff members have contributed innovative and productive operational suggestions that add to their value in the welding workplace environment. The work that these two technicians do is vital to the safety and asset stewardship of the department.

HR challenges persist, as referenced in the 2011-2012 Program Review, with other programs in other divisions requesting support by staff hired to support Automotive and Welding Technology. Effective administrative support is required to address outstanding concerns. Programs that require additional staff support should seek that support through normal and customary channels.

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2. Have there been changes in the number of full-time or part-time classified staff associated with your program since the Annual Program Review of 2011-12? If yes, briefly describe the changes.

There have not been any changes to the quantity of people or hours assigned to the Full and Part-Time Staff. There have been noticeable changes to the work activities of the staff that support Welding and Automotive. Both of the staff members consistently perform above and beyond the call of duty. The time that each of the staff members spends in the department is invaluable. The Full-Time staff member attended a regional WELD-ED week-long summer staff development activity on welding and cutting processes. The 10 month Part-Time staff member worked, on his own, this summer to take the American Welding Society, Certified Welding Inspector exam. Both staff members have contributed innovative and productive operational suggestions that add to their value in the welding workplace environment. The work that these two technicians do is vital to the safety and asset stewardship of the department.

HR challenges persist, as referenced in the 2011-2012 Program Review, with other programs in other divisions requesting support by staff hired to support Automotive and Welding Technology. Effective administrative support is required to address outstanding concerns. Programs that require additional staff support should seek that support through normal and customary channels.

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3. If applicable, describe how the changes indicated in 1 and 2 have impacted student learning?

The extra efforts of the staff team have greatly enhanced the student learning environment. The depth of knowledge of both members has grown a significant amount enabling them to more fully assist the instructors and students, provide increased safety awareness, and increased asset stewardship. The Full-Time member has increased his ability and understanding of the welding equipment. The Part-Time member has increased his ability to critically assess student work to industry standards, thus increasing the amount of feedback students receive as they gain valuable skills. Both staff members have developed a rapport with students that also adds to the learning environment and inviting, supportive atmosphere the department has worked hard to develop. As mentioned before, each member of the staff team contributes greatly to the overall lab environment, and as such, distractions from others increase the risk of safety issues, limit asset stewardship, and ultimately impact student learning.

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E. Other information pertinent to the program

N/A

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III. PLANNING

A. Planning Update

Summarize your program's plans, initiatives, and objectives accomplished since the Annual Program Review of AY 2011-12 (include accomplishments for the academic years 2012-13 and 2013-14).

Expanded use of the American Welding Society - Schools Excelling through National Education Standards (SENSE). Basis for Safety instruction in lab. Extensive use of Welding Procedure Specifications (WPS) and Standardized testing for Midterms and Finals in most courses.

LLNL Engineering Technology career Pathway for Veterans. Four Welding Technology courses are part of the 2-year cohort based program.

California State Legislature Commendation for the Welding Department's work on the "Eye of Diablo" beacon.

Issuing of actual AWS Welder Certifications to students by the LPC in-house Certified Welding Inspector, Full-Time instructor. 25+ industry certified welders exited the halls of this college, by completing additional testing and rigor outside of the normal class activities.

Extensive welding classified staff, staff development efforts

Full-Time Welding Instructor - American Welding Society - Certified Welding Inspector (CWI) Certified Welding Educator (CWE)

B. Program Planning for AY 2015-16

As appropriate for your program, please address each of the following areas. For each area, describe your program's plans, initiatives, and objectives for the academic year 2015-16. Focus on how planning will impact student learning or the student experience at Las Positas College.

1. SLO assessments. NOTE: 100% of courses in your disciplines should be assessed a minimum of once every two years. As a guideline, each program should be assessing 25% of its courses every semester.
    1. How does your program plan to use assessment results for the continuous improvement of student learning? Examples might include (Your responses may vary.):
        - changing number of units/lab hours
        - changing pedagogy/curriculum
        - changing assessments

Update course content Develop new initiatives Modify assessments Develop and implement new SLO's

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2. Have your assessment results shown a need for new SLOs? YES ☐ NO ☐
   If yes, in the table below, state the number of courses in your program and estimate the percentage of courses for which your program will write new SLOs.

Number of Courses	**Estimated Percentage for which new SLOs will be written**
1 to 20	The actual percentage will vary depending upon final course outline(s). The hope and goal is to more closely align, over time, to the WELD-ED National Core Curriculum SLO's

3. What percentage of courses will your program assess in the next academic year (2015-16)?

100% of WLDT courses will be assessed for minimum of one SLO. Most welding lab courses have two or more SLO's assigned to them.

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4. In order to budget to pay part-time faculty to work on SLOs during the academic year 2015-16, estimate the number of part-time faculty in your program and the percentage of them who are likely to participate in the SLO process in 2015-16.

Estimated Number of Part-time faculty	**Estimated Percentage who will participate in the SLO process**
4	25%

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4. Curriculum

a. Considering the criteria of relevance, appropriateness, achievement of course objectives, currency, and future needs and plans, will your program be making any changes to **existing** curriculum to address any of these criteria? If yes, please describe the changes and your program's reasons for the changes. Please provide any data which supports your program's reasons for the changes to your curriculum. Include a discussion of how the changes will improve student learning.

Need to update on an ongoing basis, time to do so, has been a couple of years since last renewed and updated. During the update process, new material will be added as appropriate. Material no longer needed will be removed as appropriate. Welding is a constantly emerging technology that sees frequent advances in technology, equipment and materials.

WLDT 61A

WLDT 61AL

WLDT 61B

WLDT 61BL

WLDT 62A

WLDT 62AL

WLDT 62B

WLDT 62BL

WLDT 63

WLDT 66

WLDT 67A

WLDT 67B

WLDT 68

WLDT 69A

WLDT 69B

WLDT 70

WLDT 71

WLDT 75

WLDT 79

WLDT 80

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b. Will new curriculum be submitted to the Curriculum Committee for the academic year 2015-2016? If yes, please describe briefly what new curriculum is planned and the rationale for the new curriculum. Please provide any data which supports your reasons for the new curriculum. Include a discussion of how the changes will improve student learning.

Welding with Lasers is a rapidly emerging technology that is short on talented professionals and technicians. The proposed course will address needs of industry as well as create new pathways for employment for students. This course supports initiatives within our state to increase advanced manufacturing class offerings. This course is consistent with previous plans discussed in the last program review cycle.

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5. General Program Planning

Use this area to describe any program plans, initiative, or objectives your program wishes to accomplish in 2015-16 and their impact on student learning or the student experience. Focus on what the plans are and how they are to be accomplished (not resources needed).

Maintain and improve a safe welding workplace environment

Perform proper college asset stewardship of welding lab equipment

Continue to focus on AWS Industry Standard weld testing and guided bend tests

Increase use of SLO's in planning , alignment with WELD-ED SLO's

Increase frequency of assessments and determine their relevance of their results

Update and refresh degrees and individual courses

Pursue Advanced Manufacturing activities

Continue rollout and use of SENSE curriculum and standardized testing

Increase lab practice time and opportunities

Increase staff development opportinues for the welding support staff

IV. Resource Requests for AY2015-16

Complete all areas that apply to your program's resource needs for 2015-16 (**not all areas apply to all programs**).

For each request, in the rationale section:

- Describe how meeting this request will improve student learning or the student experience.
- Provide any data or evidence which supports this request.

A. Enrollment Management

1. Request: New FTEF. Indicate amount being requested.

N/A

0.

2. Rationale for request(s).

N/A

0.

B. Human Resources

1. Request: New or replacement faculty position(s).

N/A

0.

2. Rationale for faculty position request(s).

N/A

0.

3. Request: Classified staff position(s) (for example, new or replacement classified staff position(s) or increasing classified hours/position level).

Increase the existing Part-time 24-hr/week instructional assistant to a Full-time 40 hour position.

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4. Rationale for classified staff position request(s).

Increase lab coverage in the afternoon and weekends

Get the existing Full-Time technician more free time to perform "high value" preventative maintenance and repair activities he was hired to perform

Give the students more "face time" in the lab with the instructional assistant

More time to prep student material, so that the students can spend more time welding and less time prepping , with the goal of more time on the hard tasks, passing industry tests.

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C. Financial

1. Request: Maintenance of, or increase in, existing program budget (e.g., for supplies, etc.).

$2500 total increase to department supplies budget:

$2000 for gasses

$500 for repairs

0.

2. Rationale for financial request(s).

This is for increased gas costs, increased welds in class to help success, as well as additional student headcount. Increase in the amount of repair from additional wear and tear by students.

0.

D. Technology (software only – discuss hardware in section E)

1. Request: Upgrade existing software or purchase new software.

N/A

0.

2. Rationale for technology request(s).

N/A

0.

E. Facilities, Equipment (include technology hardware), and Supplies

1. Request: Renovation or upgrade of existing facilities or new facilities.

Access and use of room 813 for an Advanced Manufacturing Workshop for use by Welding and Engineering, as well as other programs.

Weather tight Welding Yard cover 40’ x 60’ x 20’ tall with lighting

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2. Rationale for facilities request(s).

We need to established an area dedicated to Advanced Manufacturing to support those activities now and in the future. This space will bring greater opportunities to work with industry and on interdisciplinary projects. It was previously a student workshop for Theater and now is being used as storage.

A welding Yard Cover will free up more usable interior lab space as well as provide more weather resistant outdoor area for learning and teaching. Many programs at other colleges effectively use covered outdoor spaces as opposed to “building additions “ The welding Yard Cover has been in our Program Review since 2007. It will allow us to transform the area from storage to learning.

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3. Request: Upgrading of existing equipment or purchase of new equipment.

Lincoln Power CV GMAW Welding Machines

Laser Welding Equipment

Virtual Reality Welding Simulator

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4. Rationale for equipment request(s).

Lincoln - Next generation power source with imbedded computer monitoring and diagnostic module. Welding machine interfaces with computer to analyze parameters that effect weld quality and productivity. The current trend in welding power sources technology , a leader in the industry.

Laser - equipment to support future curriculum development in the area of Laser and high energy beam welding, cutting and drilling. Established area of advanced manufacturing that interfaces well will local business and R&D facilities. Attractive area of study for High School students and young adults.

VR Welding Simulator - saves energy, materials and wear and tear on equipment. Speeds welding comprehension and increases muscle memory prior to doing "real" welding. Excellent outreach tool that is attractive to High School students and young adults. Rapidly provides numerical scoring, instant feedback, graphical and quantative data as well. Allows replay of the weld and instructor display to a larger group for demonstrations.

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5. Request: New supplies

$2500 total increase to department supplies budget:

$2000 for gasses

$500 for repairs

0.

6. Rationale for supplies request(s).

This is for increased gas costs, increased welds in class to help success, as well as additional student headcount. Increase in the amount of repair from additional wear and tear by students.

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