Instructional Program Review Update 2012/13
(fields will expand as you type)

Section 1 - Program Information

1.0 Name of Program: Construction Technology: Residential Construction

Date: 1/04/13

1.1 Program Review Authors: Paul Kinsey, Ted Stodder, Grant Lay, Ben Scurfield

1.2 Dean’s Signature: Jeff A. Cummings Date: 1/24/13

1.3 Individual Program Information

<table>
<thead>
<tr>
<th># of Degrees</th>
<th># of Certificates</th>
<th># of Courses</th>
<th># of GE Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>29</td>
<td>0</td>
</tr>
</tbody>
</table>

The shaded cells below are to be populated by the Program Review Committee as needed.

<table>
<thead>
<tr>
<th># of Full Time Faculty</th>
<th># of Part Time Faculty</th>
<th># of Staff FTE</th>
<th>Personnel Budget</th>
<th>Discretionary Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>2011-12</td>
<td>2010-2011</td>
<td>2011-12</td>
<td>2010-2011</td>
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</tbody>
</table>

1.3.1 State briefly how the program functions support the college mission:

In support of the college mission the Residential Construction Program provides career technical education. In doing so it contributes to the economic vitality and lifelong learning needs of its service area. The program faculty assess course and program level outcomes in an effort to improve the program offerings.

1.3.2 Program highlights/accomplishments:

Construction Technology:

Residential Construction Program did not build a house during the 20011-12 year. We believe this had an adverse effect on the program and its enrollments. Students in the program built a 3 sheds for use by the PV courses to practice solar panel installation. The students that remained in the program also did many service projects around the College’s Eureka campus and in the community.

In the spring of 2012 (and after the sale of the 2010-11 student built house) the Residential Construction Program was able to buy 2 residential...
lots in Fortuna. In Fall ’12 we were able to return to the student built house method of instruction that has proven so successful in the past.

**Residential Electrical and Solar Photo-voltaic**:

The carpentry classes constructed three buildings for use in training students to install PV systems on roofs. PV courses now have a live lab to work from.

Electrical courses continued as a State approved Electrician Trainee program. This program is required for those seeking entry level electrician jobs in California.

NABCEP Entry Level test continues to be offered at the completion of CT33. Very beneficial to those seeking entry level employment in the solar industry.

**Solar Thermal** Highlights:

- Receiving new equipment through the DOL grant.
- Getting a new text book that works well for our curriculum.

**Solar Thermal** Accomplishments:

- Being able to add 4 solar hot water systems meant that we had 3-4 students per project rather than 10 people per project as in past semesters.
- Using the new textbook for the first time and getting positive feedback from the students on it.

**Cabinetmaking and Millwork**:

In the absence of a new home construction, the Cabinetmaking and Millwork classes collaborated with two other programs and build two very different kitchens. One kitchen was for the CR Shively Farmhouse, and the other was for the HPRT Field School: Annie B. Ryan House. These two jobs were very different from one another and students received experience in all aspects of residential cabinetry.

Also, through the use of CTEA funds and Loss Prevention Funding we replaced old technology table saws with 3 new generation “Sawstop” saws in the AT109 woodworking shop.

### Section 2 - Data Analysis

<table>
<thead>
<tr>
<th>2.1 Enrollment &amp; Fill Rate</th>
<th>Review and interpret data by clicking here or going to: <a href="http://www.redwoods.edu/District/IR/Program_Select.asp">http://www.redwoods.edu/District/IR/Program_Select.asp</a> Select your program and click on: Enrollments &amp; fill rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment X</td>
<td>Enrollment during the 2011-12 year dropped in the Residential Construction Program. We attribute this decline directly to the fact that we did not build a house during this year. It was a year of attrition as students previously enrolled in our program, left school to pursue jobs and both continuing and new students who enrolled to build a house either dropped or did not return for the Spring semester.</td>
</tr>
<tr>
<td>Fill Rate X</td>
<td>Comment if checked: During the 20011-12 year we worked to reduce the number of sections offered in CT.Res.Const. by offering some courses on a</td>
</tr>
</tbody>
</table>
Courses such as Building Lay-out, Building Codes and Estimating are now on a two year cycle. We also eliminated some of the low enrolled courses. Our fill rate for the courses offered remains constant at an average of 73%. We feel as though we are carefully streamlining our offerings in an effort to “right size” our program. Fill rates for the Fall semester are a little deceiving because CT 80 Carpentry Theory is the ‘gate keeper’ for the carpentry labs (CT 90 & 95). When CT 80 is full the labs are busting at the seams – the program is full even though the labs that have several concurrent sections, that WILL Not show as full. Expanding CT 80 to allow more students is not an option because we are limited to how many students we can have in the lab for safety reasons.

### 2.2 Success & Retention
Review and interpret data by [clicking here](http://www.redwoods.edu/District/IR/Program_Select.asp) or going to: http://www.redwoods.edu/District/IR/Program_Select.asp
Select your program and click on: Success & Retention

| Success | Comment if checked:
| Retention | Comment if checked:

### 2.3 Persistence
Review and interpret data by [clicking here](http://www.redwoods.edu/District/IR/Program_Select.asp) or going to: http://www.redwoods.edu/District/IR/Program_Select.asp
Select your program and click on: Persistence

- **Comment:**
  We are above the norm for 2 degrees/certificates. The population in the other two certificates reported is so small (1) that the data is insignificant.

### 2.4 Completions
Review and interpret data by [clicking here](http://www.redwoods.edu/District/IR/Program_Select.asp) or going to: http://www.redwoods.edu/District/IR/Program_Select.asp
Select your program and click on: Completions & Transfers

- **Comment:**
  Completion and transfers are above the norm.
  In the area of low completion or transfer we are slightly above the norm. This indicates that we have a high percentage of students that take courses for self-enrichment and are neither completers nor transfers: they come here to learn job skills, get them, and leave to join the workforce.

### Student Equity Group Data

#### 2.5 Enrollments by group
Review and interpret data by [clicking here](http://www.redwoods.edu/District/IR/Program_Select.asp) or going to: http://www.redwoods.edu/District/IR/Program_Select.asp
Select your program and click on: Enrollments & fill rates

- **Comment:**
  The data indicates that Residential Construction is a typically gender specific program. While we strive to emphasize a gender neutral trade and program it will be interesting to see the trends in enrollments by different groups in the years to come.

#### 2.6 Success & Retention
Review and interpret data by [clicking here](http://www.redwoods.edu/District/IR/Program_Select.asp) or going to: http://www.redwoods.edu/District/IR/Program_Select.asp
Comment: 
Success and retention in Residential Construction is mostly above the college norm. One theme that is noted is that as the age of the student increases they have a greater success rate. It is common for the younger students to leave the program to take employment and enter the workforce, while some of the “older” students are in mid-career and take courses for job retraining or unemployment programs.

Comment: 
Our program had no corresponding degrees or certificates with more than twenty students in the declared cohort.

Additional Indicators

2.8 Faculty Information
Review and interpret data by clicking here or going to: http://www.redwoods.edu/District/IR/Program_Select.asp
Select your program and click on: Faculty (FT/PT) & FTES/FTEF

Comment: Current FTES/FTEF for the district is 28.52.
Current FTES/FTEF for Residential Construction is 26.31.
Previous year’s FTES/FTEF for Residential Construction was 22.32.
While still below the district average, the 2011-12 year showed a marked improvement in student/teacher ratio. We have taken a close look at our low enrolled courses, and have begun offering low enrolled and capstone courses on a two year rotation. This has improved the enrollment in those courses, and raised our FTES/FTEF considerably. Our FTES/FTEF ratio is trending toward the district norm.

2.9 Labor Market Data (CTE/Occupational programs only)
Refer to the California Employment Development Division:
http://www.edd.ca.gov/
www.labormarketinfo.edd.ca.gov
Provide a narrative that addresses the following:
   a. Documentation of labor market demand
Narrative: Carpentry continues to be a high wage high demand occupation in the North Coast region.

### Occupational Wages

<table>
<thead>
<tr>
<th>Area</th>
<th>Year</th>
<th>Period</th>
<th>Hourly Mean</th>
<th>Hourly by Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25th</td>
</tr>
<tr>
<td>North Coast Region</td>
<td>2012</td>
<td>1st Qtr</td>
<td>$25.25</td>
<td>$23.81</td>
</tr>
</tbody>
</table>
Data for Humboldt County are not available. Data for North Coast Region has been substituted.

View Wages for All Areas About Wages

Occupational Projections of Employment (also called "Outlook" or "Demand")

<table>
<thead>
<tr>
<th>Area</th>
<th>Estimated Year-Projected Year</th>
<th>Employment</th>
<th>Employment Change</th>
<th>Annual Avg Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimated</td>
<td>Projected Number</td>
<td></td>
</tr>
<tr>
<td>North Coast Region</td>
<td>2008 - 2018</td>
<td>1,120</td>
<td>1,170</td>
<td>50</td>
</tr>
</tbody>
</table>

b. Non-duplication of other training programs in the region:
   Residential Construction is not duplicated by other training programs in this area.

c. Effectiveness as measured by student employment and program completions.
   Empirical data indicates that every student that completes our program and wants a job, gets a job. Some students leave the program and enter the workforce prior to completion.

Overall, what has been the impact of the change in indicators on student achievement and learning:
What we have found is that by offering some courses on a two year rotation we have been able to increase the average number of students in our courses. Carpentry remains a viable occupation on the North Coast and the Residential Construction Program provides comprehensive training for students.

Provide narrative on the factors that may have contributed to the improvement or decline in the identified population:
After a robust 2010-11 school year with lots of enrollments from the Department of Labor retraining grant, the 2011-2012 year was a rebuilding year. Enrollment was down 7% and we did not have a student-built house project. We saw some attrition from the program when students learned that we would not be building a house and instead would be doing a wide variety of building and repair projects on campus.

Section 3 – Critical Reflection of Assessment Activities

Curriculum & Assessment Data
Are all courses on track for complete assessment of all outcomes in two years? Y/N: yes

What courses, if any, are not on track with regard to assessment? Explain.

# of PLOs Assessed and Reported during the 2011-2012 academic year: 10

% of Course Outlines of Record updated: Data indicates 79% Actual # is 93% (26/28)

If there is no plan for updating outdated curriculum, when will you inactivate?

View curriculum status: click here or go to: http://www.redwoods.edu/District/IR/Program_Select.asp
Select your program and click on: Curriculum Status

Assessment Reporting completed? Y/N: No


3.0 How has assessment of course level SLO’s led to improvement in student learning (top three):

1. For students enrolled in cabinetmaking courses, it has allowed the assessment of student work to become more formalized and measurable.
2. In some courses (e.g. CT 90, 91) it has resulted in curriculum revisions and consolidation of outcomes.
3. The delivery of electrical course content (specifically safety instruction) has been revised as the result of SLO assessments.

3.1 How has assessment of program level outcomes led to degree/certificate improvement (top three):

1. Assessment of program level outcomes has led to a greater conversation with our Residential Construction Advisory Committee about the outcomes and their assessment. The advisory committee members (made up of current students, alumni, and community stakeholders) took an active roll in rewriting and updating the program level outcomes. This effort resulted the formalizing of course level SLO assessments which result in the Program Level Outcomes.
2. It has caused the program faculty to focus increased attention on documenting program completers and degree/certificate earners.
3. Program faculty have worked together to map SLOs to PLOs.

3.2 (Optional) Describe unusual assessment findings/observations that may require further research or institutional support:

In the spring of ’12 we worked with Dr. Hill to develop a survey of graduates. That survey is still getting responses and we await the results.

Section – 4 Evaluation of Previous Plans

4.1 Describe plans/actions identified in the last program review and their current status. What measurable outcomes were achieved due to actions completed.

<table>
<thead>
<tr>
<th>Actions</th>
<th>Current Status</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete SLO and PLO Action Plans</td>
<td>Completed</td>
<td>Action Plans were complete Spring ’12</td>
</tr>
</tbody>
</table>
**Dependent on CTEA and grant funding in most areas; CTEA funding is year to year and contingent on submitting a written request for CTEA grant funds annually.**

| The Residential Construction Program still receives much of its program improvement funds from the CTEA grant and other grant sources. It receives, much of its operating budget from the sale of the student built house. |

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### 4.2 (If applicable) Describe how funds provided in support of the plan(s) contributed to program improvement:

During the 2011-12 academic year, and through Ted Stodder’s efforts, we were able to purchase 2 building lots in Fortuna. We now have one lot we are building on and one lot to draw plans for and build on in the 2013-14 year.

### Section – 5 Planning

#### 5.0 Program Plans

Based on data analysis, student learning outcomes and program indicators, assessment and review, and your critical reflections, describe the program’s Action Plan for the 2012/13 academic year. If more than one plan, add rows. Include necessary resources. (Only a list of resources is needed here. Provide detailed line item budgets, supporting data or other justifications in the Resource Request).

#### 5.1 Program Plans

<table>
<thead>
<tr>
<th>Action to be taken:</th>
<th>Relationship to Institutional Plans</th>
<th>Relationship to Assessment</th>
<th>Expected Impact on Program/Student Learning</th>
<th>Resources Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase a building lot for House #40. (2014-2015 year)</td>
<td>Provide a well-educated, well trained workforce to the service area and the North Coast region.</td>
<td>The Construction Technology Program revolves around the design and building of a home on a building lot.</td>
<td>Huge. The Construction Technology Program revolves around the design and building of a home on a building lot.</td>
<td>$65,000 - $75,000. These funds will be from the sale of House #37.</td>
</tr>
<tr>
<td>Write Self-Study for external accreditation by A.T.M.A.E. (Association of Technology, Management and Applied Engineering)</td>
<td>Relates directly to Institutional Plans for an outcomes based, data driven assessment process.</td>
<td>The accreditation is an outcomes based assessment.</td>
<td>The accreditation is an outcomes based assessment. The accreditation is based directly on Program level goals, and SLOs.</td>
<td>Administrative support from department and I.R.</td>
</tr>
</tbody>
</table>

#### 5.2 Provide any additional information, brief definitions, descriptions, comments, or explanations, if necessary.

This building lot will need to be purchased in the Spring 2013 so that Architecture students (DT 73) can draw house plans in Fall, 2013.
### Section 6 - Resource Requests

6.0 Planning Related, Operational, and Personnel Resource Requests. Requests must be submitted with rationale, plan linkage and estimated costs. If requesting full-time staff, or tenure-track faculty, submit the appropriate form available at inside.redwoods.edu/ProgramReview Requests will follow the appropriate processes.

<table>
<thead>
<tr>
<th>Request</th>
<th>Check One</th>
<th>Amount</th>
<th>Recurring</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Operational</td>
<td>Personnel</td>
<td>Cost Y/N</td>
<td>Linkage</td>
</tr>
<tr>
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</tbody>
</table>

### Section 7 - Program Review Committee Response

Do not type in this section. To be completed by the Program Review Committee following evaluation.

7.0 *The response will be forwarded to the author and the supervising Director and Vice President:*

S.1. **Program Information:**  *Satisfactory*

S.2. **Data Analysis:**  *Good inclusion of market data specific to the North Coast.*

S.3. **Critical Reflection of Assessment Activities:**  *Some CT courses haven’t been updated, and some have no course assessed. Unsure if CT courses are for residential.*

S.4. **Evaluation of Previous Plans:**  *Action plans were completed in 2012*

S.5. **Planning:**  *External accreditation drives internal assessment evaluations.*

S.6. **Resource Requests:**  *Planning indicated a financial resource in excess of $65,000 however was not included in Section 6 – Resource Requests.*