Comprehensive Program Review Report (Narrative)
College of the Sequoias
Program Review - Drafting

Prepared by: Rolando Gonzalez, M. Arch. Professor of Architecture/Architect AIA, Chair I&T

What are the strengths of your area?: The COS drafting technology program culminates in an AS Degree in Drafting Technology which allows students to obtain entry level employment. As students work towards their degree they also obtain Certificates. Certificates motivate students to continue in the program and their completion aides in obtaining employment should they not complete their degree.

Employment success is good. It is highlighted in the architecture department website. Local employers regularly contact the department with employment opportunities. Employment opportunities are announced and posted in the classroom. As of 2013 we are averaging 4 employment placements per year.

An Outcomes Assessment 3 Year Cycle has been created. All course and program outcomes are completed.

What improvements are needed?: Overall program enrollment needs to be increased to prevent having to rotate some courses every other year. Rotating courses slows degree and certificate completion. These courses include DRFT112 and DRFT113.

First year enrollment needs to be increased to ensure second year course enrollments are sufficient. Canceling second year courses slows degree and certificate completion.

Open Lab is needed for students to obtain additional coursework assistance and time to complete their work. Currently full time faculty supervises Open lab without compensation.

High school recruiting trips are needed to promote and increase the enrollment of the program. Currently full time faculty conduct high school recruiting without compensation.

High school recruiting brochures need to be created to attract and track potential students.

Degree completion is poor. As of 2012 we are averaging 3 Degrees per year.

Certificate completion is poor. As of 2012 we are averaging 1 Certificates per year.

Success Rate average for the past three (3) years is poor. It is currently 49%. State Success Rate is 83%.

A Drafting Technology Program Questionnaire needs to be created and distributed to the students to evaluate the overall quality.

Additional drafting courses need to be identified as General Education courses. A recent request to include DRFT114 has been submitted to the General Education committee.

Efficiency (WSCH/FTEF) average for the past five (5) years is 321. 2025 Target is 325.

Describe any external opportunities or challenges.: The city of Tulare has a smaller population than Visalia. This affects enrollment.

The move to Tulare has made it more difficult for Visalia campus students to be aware of the drafting technology program. This affects enrollment.

The drive from the Visalia campus to Tulare has discouraged some students from entering the drafting technology program. This affects enrollment.

Computer program software is an integral part of the program. Keeping this software current is a challenge. It is expensive.

We recently obtained a 3D printer. The resin necessary to use this printer is expensive. Students cannot afford these costs.

Overall Outcome Achievement: Students require time outside of class in the form of an Open Lab to complete their coursework. A paid student lab assistant is needed to assist these students.

Several program learning outcome assessments were successfully completed:
1. Program quality was assessed based on the success of students using their portfolio to obtain employment. It was a positive outcome.
2. Program quality was assessed based on the success of students using their portfolio to transfer to a university. It was NOT a positive outcome.
3. Program quality was assessed based on the success of students completing their AS Degree (not for transfer) in Drafting Technology. It was NOT a positive outcome.
4. Program quality was assessed based on the success of students completing their Certificates in Drafting Technology. It was NOT a positive outcome.

Changes based on outcome: Steps need to be taken to increase Degree and Certificate completion. Increased enrollment, continued use of Open Lab and additional drafting courses identified as General Education courses will assist in this endeavor.

To date a portfolio has not been used for university transfer.

Outcome cycle evaluation: An Outcomes Assessment 3 Year Cycle has been created. All course and program outcomes are completed. Faculty have been assigned specific courses and programs.

See "Documents".

Action: High School Recruiting Brochures

Create high school recruiting brochures to attract and track potential students.

**Implementation Timeline:** 2014 - 2015

**Start Date:** 12/09/2014

**Completion Date:** 05/21/2015

**Status:** New Action

**Identify related course/program outcomes:**

This action is related to the following program outcome:

At the end of this program, students will create and analyze documents related to computer assisted and tactile drafting/design, create and distinguish tactile 2D & 3D visual communication drawings, manage and explain computer operating systems and the world wide web, create and distinguish graphic design projects, i.e. illustrations, and web page design & development, and create and analyze documents related to construction technology, i.e. construction materials & methods, detailing, and construction documents.

**Person(s) Responsible (Name and Position):** Rolando Gonzalez, M. Arch. Professor of Architecture/Architect AIA, Chair I&T

**Rationale (With supporting data):**

In order to ensure continued and sufficient enrollment in the drafting technology program, high school recruiting brochures to attract and track students are necessary.

Scheduling data clearly shows low enrolled drafting technology courses are cancelled. Scheduling data clearly shows second year drafting technology courses are sometimes cancelled.

**Priority:** High

**Safety Issue:** No

**External Mandate:** No

**Add Resource Request for Action**

<table>
<thead>
<tr>
<th>Resource Description</th>
<th>Why is this resource required for this action?</th>
<th>Notes (optional)</th>
<th>Active</th>
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<tbody>
<tr>
<td>Funding to create and purchase recruiting brochures.</td>
<td>There will be costs associated with creating the brochures.</td>
<td>Costs per psprint.com</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Resource Type:** Non-instructional equipment

**Related Documents:** PsPrint Cost Estimate for Brochure.htm

**Quantity 250**

**Total Price $245.91**

**Price/Piece $0.983**

2 hrs. x $53.35/hr. (Lab Rate for R. Gonzalez) = $106.70
**Action: High School Recruiting**

Recruit at local high schools.

**Implementation Timeline:** 2014 - 2015

- **Start Date:** 12/09/2014
- **Completion Date:** 05/21/2015
- **Status:** New Action

**Identify related course/program outcomes:**

This action affects ALL course outcomes.

- This action is related to the following program outcome:
  - At the end of this program, students will create and analyze documents related to computer assisted and tactile drafting/design, create and distinguish tactile 2D & 3D visual communication drawings, manage and explain computer operating systems and the world wide web, create and distinguish graphic design projects, i.e. illustrations, and web page design & development, and create and analyze documents related to construction technology, i.e. construction materials & methods, detailing, and construction documents.

**Person(s) Responsible (Name and Position):**

Rolando Gonzalez, M. Arch. Professor of Architecture/Architect AIA, Chair I&T

**Rationale (With supporting data):**

In order to ensure continued and sufficient enrollment in the drafting technology program, high school recruiting is necessary.

- Scheduling data clearly shows low enrolled drafting technology courses are cancelled.
- Scheduling data clearly shows second year drafting technology courses are sometimes cancelled.

**Priority:** High

**Safety Issue:** No

**External Mandate:** No

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<td>Funding to compensate full time faculty for recruiting at high schools.</td>
<td>Currently full time faculty compensation for high school recruiting does not exist.</td>
<td>10 high schools x 2 hrs. each = 20 hrs. 20 hrs. x $53.35/hr. (Lab Rate for R. Gonzalez) = $1,067</td>
<td>Yes</td>
</tr>
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**Resource Type:** Non-instructional equipment

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**Action: Computer Program Software Upgrades**

Provide computer program software upgrades to keep pace with industry standards:

Dassault SolidWorks

**Implementation Timeline:** 2014 - 2015

- **Start Date:** 08/11/2014
- **Completion Date:** 05/21/2015
- **Status:** New Action

**Identify related course/program outcomes:**

This action affects ALL course outcomes.

- This action is related to the following program outcome:
  - At the end of this program, students will create and analyze documents related to computer assisted and tactile drafting/design, create and distinguish tactile 2D & 3D visual communication drawings, manage and explain computer operating systems and the world wide web, create and distinguish graphic design projects, i.e. illustrations, and web page design & development, and create and analyze documents related to construction technology, i.e. construction materials & methods, detailing, and construction documents.

**Person(s) Responsible (Name and Position):**

Rolando Gonzalez, M. Arch. Professor of Architecture/Architect AIA, Chair I&T

**Rationale (With supporting data):**

Industry demands that students be knowledgeable in the most recent computer program software version.

- Data: When employers complete the Employment Opportunity Flyer they demand knowledge of the most recent computer program software version. See "Documents".

**Priority:** High
### Action: 3D Printer Resin

Provide resin for the 3D printer.

**Implementation Timeline:** 2014 - 2015  
**Start Date:** 08/11/2014  
**Completion Date:** 05/21/2015  
**Status:** New Action

**Identify related course/program outcomes:**  
This action affects ALL course outcomes.

**Rationale (With supporting data):**  
The resin needed for the 3D printer is expensive. Students cannot afford it. Data: One bottle of resin is $150.00 per liter.

**Person(s) Responsible (Name and Position):**  
Rolando Gonzalez, M. Arch. Professor of Architecture/Architect AIA, Chair I&T

**Priority:** Medium  
**Safety Issue:** No

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<td>Funding to purchase resin.</td>
<td>Students cannot afford to purchase resin.</td>
<td>$150 x 10 liters = $1,500 + shipping = $1,545</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Resource Type:** Instructional equipment  
**Related Documents:**  
2014-15 VTEA POs for ARCH DRFT GD.xls  
2014-15 VTEA Drafting Technology.pdf
Action: Program Questionnaire

Create and distribute a Drafting Technology Program Questionnaire to the drafting students to evaluate the program.

**Implementation Timeline:** 2015 - 2016

**Start Date:** 08/17/2015

**Completion Date:** 05/19/2016

**Status:** New Action

**Identify related course/program outcomes:**
This action is related to the following program outcome:
At the end of this program, students will create and analyze documents related to computer assisted and tactile drafting/design, create and distinguish tactile 2D & 3D visual communication drawings, manage and explain computer operating systems and the world wide web, create and distinguish graphic design projects, i.e. illustrations, and web page design & development, and create and analyze documents related to construction technology, i.e. construction materials & methods, detailing, and construction documents.

**Person(s) Responsible (Name and Position):**
Rolando Gonzalez, M. Arch. Professor of Architecture/Architect AIA, Chair I&T

**Rationale (With supporting data):**
A Drafting Technology Program Questionnaire will assist in evaluating the program. The data collected will be used to improve the program.

**Priority:** High

**Safety Issue:** No

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<td>Funding to compensate full time faculty for creating rough draft questionnaire.</td>
<td>Without funding the rough draft questionnaire cannot be created.</td>
<td>2 hrs. x $53.35 (Lab Rate for R. Gonzalez) = $106.70</td>
<td>Yes</td>
</tr>
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</table>

**Resource Type:** Non-instructional equipment

**Related Documents:**
- Arch Program Questionnaire.pdf
- DRFT.pdf

Action: VTEA Funding

Request VTEA funding each year.

**Implementation Timeline:** 2014 - 2015

**Start Date:** 04/01/2015

**Completion Date:** 04/15/2015

**Status:** New Action

**Identify related course/program outcomes:**
This action is related to the following program outcome:
At the end of this program, students will create and analyze documents related to computer assisted and tactile drafting/design, create and distinguish tactile 2D & 3D visual communication drawings, manage and explain computer operating systems and the world wide web, create and distinguish graphic design projects, i.e. illustrations, and web page design & development, and create and analyze documents related to construction technology, i.e. construction materials & methods, detailing, and construction documents.

**Person(s) Responsible (Name and Position):**
Rolando Gonzalez, M. Arch. Professor of Architecture / Architect AIA, Chair I&T

**Rationale (With supporting data):**
VTEA funding is requested and utilized each year to support the program. Data: VTEA funding has been used for equipment, software, competitions, and instructional salaries. See "Documents".

**Priority:** High

**Safety Issue:** No
**Add Resource Request for Action**

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<td>Funding for equipment, software, competitions, and instructional salaries. See &quot;Documents&quot;.</td>
<td>Without this funding equipment, software, competitions, and instructional salaries cannot be obtained.</td>
<td></td>
<td>Yes</td>
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**Resource Type:** Instructional equipment

**Related Documents:**
- 2014-15 VTEA Drafting Technology.pdf
- 2014-15 VTEA POs for ARCH DRFT GD.xls