Assessment: Assessment Unit Planning

Program Review 2014-15

YC - Drafting Program Review

Year Under Review : 2014-15
Type of Review: Self-Study (4-year review)
Program Description : The drafting department provides cross curricular support to the engineering and manufacturing departments within the Yuba Community College District. The drafting department staff consists of an adjunct instructor and a new full time instructor scheduled to teach drafting part time from the engineering department. Courses offered in the drafting department are currently offers an Associate in Science degree and a Certificate of Achievement in Architectural Studies.
Executive Summary (Include a list of team members): Program: Drafting Year: 2015-2016
Date of Next Program Review: 2019

Program Review Committee Members: Erik Jens, Daren Otten, Susan Bowler, Doug Joksch

Current status of the drafting program Marysville campus
-Faculty: One adjunct instructor and one instructor scheduled to provide part time instruction from the engineering department.

-Labs: The drafting lab is located in Room 603 and is shared by the computer science, engineering, and manufacturing department.

-Computers/Equipment: Rm. 603 computer lab 18 student and 1 staff workstations.
(Six of eighteen workstations have been replaced)

Program Description and Current Status
1. Program Description : The drafting department provides cross curricular support to the engineering and manufacturing departments within the Yuba Community College District. The drafting department staff consists of an adjunct instructor and a new full time instructor scheduled to instruct drafting part time from the engineering department. Ten courses are offered in the drafting department and the department currently offers an Associate in Science degree and a Certificate of Achievement in Architectural Studies. This program review should be seen as a baseline for revitalization of the drafting department.

2. Program Summary (Erik Jens, Susan Bowler, Daren Otten): Erik Jens is the principal adjunct faculty member in this department. Additional instructional staff is scheduled to include part-time instruction from the engineering department to assist in the development and monitoring of curriculum, update CORs, assets SLOs, and to establish a direction for the program. Additional instruction support can be drawn from qualified and experienced administrative staff.

Immediate needs for the drafting department include continued professional development for existing staff and training for new part time instructor. The drafting department feeds students into other programs on campus including Manufacturing and Engineering. A collaborative working relationship between manufacturing and engineering needs to be established to assure courses provide required skills for current vocation and transfer needs. Full-time faculty from vocational programs and engineering will be responsible for providing directional assistance.

Significant changes in the program since the last program review or annual update
No significant changes have be made to the curriculum offered by the drafting department since the last program review. However, workstations in the 603 are scheduled for replacement and Solid Works is being purchased for installation in the drafting lab facilitating the creation of two new courses.

Curriculum and Program Direction

Over the last several years, Draft 30 has been the viable course offered at Yuba College. There is a need to create two additional courses to accommodate the immediate needs of transfer students and are listed in this report. Courses not offered from the course listings of the drafting department needs to be reviewed for viability and retention. Additionally, the Associate in Science and Certificate of Achievement in Architectural Studies needs to be review for viability and retention.

Strengths and recent accomplishments

- The drafting department currently offers ten courses geared towards an AS degree and Certificate of Achievement in Architectural Studies.
- Six of the eighteen workstations in the 603 drafting lab have been replaced and plans are in work to identify funds to replace the remaining twelve workstations.

Areas for Improvement

- Of the ten course listed in the drafting department, DRAFT 30 Technical Drafting with AutoCAD has been offered within the last 5-7 years.
- Course listed in the drafting department do not articulate with in-area CSU or UC institutions or have been denied articulation.
- The current Drafting 36 does articulate with CSU Chico in Construction Management but is not actively offered at Yuba College.
- Retain DRAFT 30 currently listed under drafting and determine the viability of the following courses:

  Draft 20 Blueprint and Specification Reading.
  Draft 31 Technical Drawing with AutoCAD.
  Draft 32 Architectural Delineation.
  Draft 33 Surveying a Parcel Boundary.
  Draft 34 Architectural Drawing.
  Draft 35 Architectural Design and Presentation.
  Draft 36 Architectural Design and Presentation.
  Draft 38 Computer Aided Drafting.
  Draft 39 Building information Modeling.

Areas for Improvement/Future Direction/Update

- Creation of two new courses within drafting department to articulate with in-area CSU intuitions.

  Graphics 20
  Introduction to engineering graphics, including the following orthographic projection, auxiliary views, isometric views, dimensioning, tolerancing, drawing standards, working standards, and solids modeling.

  Graphics 21
  Drawing standards, geometric dimensioning and tolerancing, working drawings, product data management, intermediate solid modeling, introduction to Rapid Prototyping and specialized graphic applications.

Staffing

Strengths

- The drafting department staff consists of an adjunct instructor and a new full time instructor scheduled to instruct drafting part time from the engineering department.

Equipment

Strengths

- However, workstations in the 603 are scheduled for replacement and Solid Works being purchased for installation in the drafting lab facilitating the creation of new courses.

Areas for Improvement/Future Direction

- Remaining twelve work stations require replacement
- Solid works application needs to be installed in 603 lab workstations to accompany AutoCAD.
- Determine training needs of drafting staff to accommodate new and updated software tools.
- Investigate use of other lab sites to accommodate future expansion. Investigate common

district wide workstation requirements to accommodate flexible lab usage across campus.

01IP. Department Goals (Click '?' for Prompt): The drafting department shares a common commitment to adherence to academic goals at Yuba College. Examples are as follows:

YC Goal 1 SLOs will include evidence based feedback self observable by student completing assignment, project, or program design to include employed critical thinking skills and ability to communicate fact based design decisions. Collection of feedback from transfer students investigating areas of strengths and weakness to assure student success. Develop evaluation methods to relate assignment completion to SLO rubric.

YC Goal 2 Interact with local business leaders for guidance of direction in determining how best to present required skills sets in relation to local business needs providing internship opportunities for students. Priority will be given to skill set instruction using emerging community needs with topics lending toward student success to fit identified needs.

YC Goal 3 Increased effort will be made to assure support hardware to include computer work stations are updated. For example, as of 10/30/2013, no plan is in place to replace aging computers in 603 labs. This problem in being resolved. Increase interdepartmental collaboration to provide student insight to the use of computers across multiple disciplines as well as drafting. Continue review of current technologies in drafting and related fields drafting supports.

YC Goal 4 Evaluation of DE software tools and institutional sponsored web sites as a mode of course delivery to supplement class lecture. Evaluate effectiveness of replacement to Black Board and institutional sponsored web sites as a mode of course delivery to supplement class lecture.

YC Goal 5 Implementation of the following new transfer courses in support of manufacturing and engineering transfer students.

Graphics 20 Introduction to engineering graphics -- Awaiting submission

Graphics 21 Drawing stands, dimension. and tolerance -- Awaiting submission

Identifying business needs providing internship opportunities for students. Priority will be given to skill set instruction using emerging community needs with topics lending toward student success to fit identified needs.

YC Goal 6 New replacement to DE Black Board software will be evaluated. A large effort will be made to assure support hardware to include computer work stations are updated to assure quality student services. SLOs will be refined to provide quality feedback to students and assessment.

YC Goal 7 Commitment to bring current technologies and materials directly into the classroom. Computer and digital hardware systems will be presented to students allowing hands-on interaction with the actual hardware presented within the textbooks and labs engaging students in active learning.

02IP. Access to Support Services (Click '?' for Prompt): -Office Hours, -Supplemental Instruction (In-class peer tutor), -DSPS, -EOPS, -Library Services, -Counseling Services

03IP. Follow up to question 02IP (Click '?' for Prompt): The current migration to Canvas provides adequate support for DE requirements for computer science. There are issues with network reliability in the 603 lab which is being addressed by IT department. I am confident that these issues will be resolved prior to the conclusion of the Fall 2015 term. Migration to network based applications will mandate the need for a fast, stable, and reliable network connection.

04IP. Degrees/Certificates (Click '?' for Prompt): None. At this time, courses required to complete the A.S. degree or Certificate of Achievement in Architectural Studies are not in the current course rotation with the exception of DRAFT 30. These degrees are being evaluated for viability and retention.

05IP. Improve Completion (Click '?' for Prompt): All courses with the exception of DRAFT 30 are under evaluation for viability and retention. Collaboration with in area 4-yr institutions has identified two new courses targeting vocational and transfer students and are listed in the executive summary.

06IP. Course Outlines (Click '?' for Prompt): Draft 20 and 30 will be put into the update rotation this reporting year. All other courses are under evaluation for viability and retention. Those course identified for retention will be submitted for update.

07IP. Collaboration (Click '?' for Prompt): The drafting department works with student services to assure that all required needs of students are met. To date, the drafting departments understands specialized student services available to enable or enhance the learning outcome of students.

08IP. Catalog Currency (Click '?' for Prompt): Course catalog course description, content changes and changes to degrees and certificates are active in CurricUNET. These changes are reflected in manufacturing curriculum as well.

09IP. For CTE Programs Only (Click '?' for Prompt): The Bureau of Labor Statistics determines that employment of drafters is projected to show little or no change from 2012 to 2022. Although the trend is that drafters will continue to work on technical

drawings and documents related to the design of buildings, machines, and tools, new software programs are making the work more efficient, thus requiring fewer workers. Competition for jobs is expected to be strong. Drafting and graphic skills are required in support of engineering and manufacturing fields and is crucial for delivering skill necessary for success in these fields.
10IP. DE Students (Click '?' for Prompt): DE software is used in support of on-line as well as enhanced courses at Yuba College. At this time, any videos used are supplemental and provided by the author through the textbook publisher. As a writer for Prentice Hall, efforts are made to comply with mandated section 508 of this act.
11IP.Disproportionate Impact(Click '?' for Prompt): Engineering related areas tend to be identified in this area. External to Yuba College, I am working with a member of the STEM project where this issue is also discussed. It is the intention of the computer science to follow recommendations to address this issue. This group is collecting speakers from around the area to address students and to help with modifications to how information is presented.
12IP. Mapping (Click '?' for Prompt): Yes
13IP. Course SLOs (Click '?' for Prompt): As of the Fall 2015, SLO's are in place for the following courses.
DRAFT 20 - YC - Blueprint and Specifications Reading.
DRAFT 30 - YC - Technical Drawing with AutoCAD.
DRAFT 34 - YC - Architectural Drawing.
DRAFT 35 - YC - Architectural Design and Presentation.
DRAFT 38 - YC - Computer-Aided Drafting.
For the listed courses, methods of evaluation are in defined however, assessment of these course will need to be performed as they are offered to start the data collection process. Evaluation of courses offered by the drafting department at Yuba College is underway to determine which courses should remain for content and SLO updating. Remaining courses without SLO's are being assessed for elimination.
14IP. Program SLOs (Click '?' for Prompt): Course SLOs are developed based on program SLOs. Refer to Goals of the Program and SLOs in executive summary. Program goals are developed to comply with the goals of the college.
15IP. Professional Development (Click '?' for Prompt): I attended the MidWest clinic in Chicago. Materials presented proided useful training in the field of classroom management and SLOs from both inside and outside the US. Instructors trained on the creation of successful SLOs and management of the classroom environment. Additional development relates to work with Prentice Hall publishing where adherence to mandated guidelines to materials presentation is covered.
16IP. Reflection (Click '?' for Prompt): Information collected from program review is the repository of direction for the drafting department. Course status, facility, and support are listed here. From this information, course alignment, creation, and deletion with be made. Constant adjustment is needed to support transfer and vocational student needs. This program review has identified two courses that will need to be produced as well as the consolidation of two courses taught across two departments. Collaboration with other departments is identified and referenced from this document.
Are you ready to submit your final program review?:

Program Recommendation: Foster a culture of evidence-based decision making.

Drafting will need to review the CORs and SLOs for all the courses currently taught and update them as necessary. SLOs will need to be assessed and program direction determined by assessment results. Adjunct instructor Erik Jens will need CurricUNET access in order to act on this recommendation.

Recommendation Priority: 3. High Priority
Year(s) Requested: 2014-2015
Request Date: 01/31/2014
Supporting Evidence : Supporting evidence needs to be provided through SLO updating and assessment.
Evaluation Plan: Grant adjunct instructor Jens access to CurricUNET so that supporting evidence can be reported.

Plan of Action

Curriculum/SLO - Grant adjunct instructor Jens access to CurricUNET to perform COR and SLO updating and assessment. (Active)

Budgetary Impact: None, unless additional compensation is provided to the adjunct instructor to carry out the COR and SLO updating and assessment.
Timeline/Responsible Party: Dean of the division should make sure that Jens has access to CurricUNET. Dean can monitor progress on COR and SLO updating and assessment.
Perkins Eligible: No

YC - Drafting Program Review

DE Related: No
HSI Related: No

Status

Reporting Year: 2014-2015 01/31/2014
Recommendation Progress: Recommendation Needs Improvement/Attention
Not yet achieved as of 1/31/14.

Related Goals

College - Yuba College Program Review

YC Goal 1 - Foster a culture of evidence-informed decision making, include SLO development/assessment and other measures of student success.

YC Goal 6 - Evaluate our programs, services and processes to ensure continuous quality improvement.

YCCD Board of Trustees Vision Statement

YCCD VS 3 - Developing and maintaining programs and facilities that best meet with needs of our students and communities;

YC - Drafting Program Review

YC Goal 1 - Foster a culture of evidence-informed decision making, include SLO development/assessment and other measures of student success.

Program Recommendation: Update existing technology in the drafting lab.

The existing workstations provided in room 603 have been recommended for replacement on previous reviews. They have been in continual use for long past their prime and need to be replaced. In 2013, six (6) new workstations were purchased using funds from the drafting department budget, but these workstations have yet to be installed in the lab in room 603 at the time of this writing. (January 2014). The existing equipment minimally achieves the essential goals and objectives of the program. The software has been updated and is nearly current to industry standards. The age of the computers shows in their limitations in running the software smoothly without interruption. The full size plotter located in room 603 has been unable to be used for four years now due to the need to replace printer ink and cartridges. This needs to be remedied.

Recommendation Priority: 3. High Priority
Year(s) Requested: 2013-2014
Request Date: 01/31/2014
Supporting Evidence : Past recommendations on previous program reviews dating back to 2009.
Evaluation Plan: Fall 2015 - Conversations in place to identify funds to replace remaining work stations in 603 lab. Once replaced, a plan needs to be generated to replace workstations. Evaluation of this action will be the replacement of remaining workstations and the creation of a workable criteria that will assure the ability of lab assets to perform needed function.

Plan of Action

Equipment - Currently, computer purchases for 847 are underway, and the lab in 603 will be decommissioned. Drafting, Engineering, Learning Assistance, and Computer Science courses will all be taught in the updated 847 lab. (Active)

Budgetary Impact: College is providing the funding for the technology upgrading. Drafting has also provided funds for some of this upgrading out of its own budget.
Timeline/Responsible Party: IT Department and various departments requesting the upgrading.
DE Related: No
HSI Related: No

Status

YC - Drafting Program Review

Reporting Year: 2014-2015 01/31/2014
Recommendation Progress: Recommendation Addressed/Satisfactory Progress
Currently being enacted.

Related Goals

College - Yuba College Program Review
YC Goal 2 - Prioritize and allocate resources based on existing and emerging community and student needs over those of individual projects or programs.
YC Goal 3 - Steward our institutional resources with increasing effectiveness and efficiency.
YC Goal 4 - Research and utilize effective modes of delivery for our courses and services.
YC Goal 5 - Design our programs in such a way as to allow students to complete their educational goals in a timely manner.
YC Goal 8 - Develop partnerships to enhance educational resources and student opportunities.

Institutional Learning Outcomes
Computation - Use appropriate mathematical concepts and methods to understand, analyze, and communicate issues in quantitative terms.
Critical Thinking - Analyze data/information in addressing and evaluating problems and issues in making decisions.
Information Competency - Conduct, present, and use research necessary to achieve educational, professional, and personal objectives.
Scientific Awareness - Understand the purpose of scientific inquiry and the implications and applications of basic scientific principles.
Technological Awareness - Select and use appropriate technological tools for personal, academic, and career tasks.

YCCD Board of Trustees Vision Statement
YCCD VS 1 - Providing an innovative, world-class learning environment;
YCCD VS 3 - Developing and maintaining programs and facilities that best meet with needs of our students and communities;
YCCD VS 4 - Stewarding resources strategically to meet the diverse needs of our communities and region;
YCCD VS 5 - Providing educational, economic, cultural, and civic leadership for our communities and region.

YC - Drafting Program Review
YCCD VS 3 - Develop and maintain programs and facilities that best meet with needs of our students and communities.

Program Recommendation: Hire a full-time Drafting instructor.

UPDATE 2015-2016: The drafting department needs to evaluate existing course offerings, degrees, and certificates for viability and retention. Retained and new coursework designed to support vocational students and those seeking transfer to 4-year institutions needs to be evaluated and the hiring of staff based on the ability to support student needs.

Recommendation Priority: 3. High Priority
Year(s) Requested: 2015-2016
Request Date: 01/31/2014
Supporting Evidence : Updating Drafting CORs and SLOs has been difficult without a full-time faculty member to carry out these duties.

UPDATE: Of the ten courses offered, DRAFT 30 is currently offered. Two new courses are proposed in the 2015-2016 program review.
Evaluation Plan: Evaluate viability of current listed courses for viability and retention. Create new courses to support existing needs of vocational and engineering curriculum.

YC - Drafting Program Review

Plan of Action

Staffing - Faculty - Prepare a faculty staffing request for Drafting for the next staffing cycle. (Active)
Budgetary Impact: Cost of a full-time instructor, minus the salary of the current adjunct instructor.
Timeline/Responsible Party: Dean of division with assistance of adjunct instructor Erik Jens.
Perkins Eligible: No
DE Related: No
HSI Related: No

Status

Reporting Year: 2014-2015 01/31/2014
Recommendation Progress: Recommendation Needs Improvement/Attention
Needs to be enacted.

Related Goals

College - Yuba College Program Review
YC Goal 1 - Foster a culture of evidence-informed decision making, include SLO development/assessment and other measures of student success.
YC Goal 2 - Prioritize and allocate resources based on existing and emerging community and student needs over those of individual projects or programs.
YC Goal 3 - Steward our institutional resources with increasing effectiveness and efficiency.
YC Goal 4 - Research and utilize effective modes of delivery for our courses and services.
YC Goal 5 - Design our programs in such a way as to allow students to complete their educational goals in a timely manner.
YC Goal 6 - Evaluate our programs, services and processes to ensure continuous quality improvement.
YC Goal 7 - Improve the quality of the student experience at all our campuses and centers.
YC Goal 8 - Develop partnerships to enhance educational resources and student opportunities.
YC Goal 9 - Exemplify educational excellence, fiscal responsibility, cultural awareness, and civic engagement for our communities and region.

Institutional Learning Outcomes
Computation - Use appropriate mathematical concepts and methods to understand, analyze, and communicate issues in quantitative terms.
Critical Thinking - Analyze data/information in addressing and evaluating problems and issues in making decisions.
Information Competency - Conduct, present, and use research necessary to achieve educational, professional, and personal objectives.
Scientific Awareness - Understand the purpose of scientific inquiry and the implications and applications of basic scientific principles.
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YC - Drafting Program Review

YC - Drafting Program Review
YC Goal 1 - Foster a culture of evidence-informed decision making, include SLO development/assessment and other measures of student success.
YCCD VS 3 - Develop and maintain programs and facilities that best meet with needs of our students and communities.

Program Recommendation: Provide professional development for Drafting adjunct faculty member.

Identify funds to provide continued education or professional development to drafting instructors.

Recommendation Priority: 3. High Priority
Year(s) Requested: 2014-2015
Request Date: 01/31/2014
Supporting Evidence : Drafting department has used AutoCAD exclusively through 2015. Solid works is being obtained to allow creation of additional courses targeting transfer articulation and augmentation of vocational programs. The introduction of new software tools are needed to address denial of articulation of existing courses in this department.
Evaluation Plan: Assess, through SLOs, the effect of PD development on student achievement in Drafting. New courses are identified in the 2015-2016 program review to address denial of articulation issues. Four year institution feedback will be used to measure the success of drafting staff. Articulation proposals and acceptance by 4-yr institutions will validate this recommendation.

Plan of Action

Professional Development/Training - Provide funds for PD for adjunct instructor of Drafting. Encourage drafting instructor to submit requests for funding when relevant PD activities are offered. (Active)
Budgetary Impact: Could impact the college budget if FLEX funding for PD is requested.
Timeline/Responsible Party: Instructor will be responsible for submitting requests for PD funding through FLEX.
Perkins Eligible: No
DE Related: No
HSI Related: No

Status

Reporting Year: 2014-2015 01/31/2014
Recommendation Progress: Recommendation Needs Improvement/Attention
This needs to be accomplished.

Related Goals

College - Yuba College Program Review
YC Goal 4 - Research and utilize effective modes of delivery for our courses and services.
YC Goal 7 - Improve the quality of the student experience at all our campuses and centers.

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YC - Drafting Program Review
YCCD VS 3 - Develop and maintain programs and facilities that best meet with needs of our students and communities.