

# Annual Program Review 2011-2012 - INSTRUCTIONAL

# Division - Program TECHNOLOGY & AVIATION – Engineering Support

## Authorization

After the document is complete, it must be reviewed and <u>submitted to the Program Review</u> <u>Committee by the Division Chair</u>.

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### **Overview of the Program**

All degrees and certificates are considered programs. In addition, divisions may further delineate and define programs based on their assessment needs (developmental sequences, career track, etc).

Statement of Purpose - briefly describe in 1-3 sentences.

The Engineering Support program has been designed to prepare students to enter the field of engineering. Students use the training to gain or maintain employment in the engineering and related fields.

Please list the most significant achievement accomplished since your last program review.

Development of a new CAD (Computer Aided Design) Skill Award.

List the current major strengths of your program

- 1. Adaptability of the department to offer current and relevant curriculum.
- 2. Classes that are taught are student-centered. Classes are designed to serve the student and their educational goals.

List the current weaknesses of your program

- 1. Lack of SLO assessment data.
- 2. Lack of a well-defined advisory board.

### 1.0. Trend Analysis

For each program within the division, use the data provided to indicate trends (e.g., steady, increasing, decreasing, etc.) for each of the following measures.

	Academic			WSCH /			Succes	
_	Year	FTES	FTEF	FTEF	Full-Time	Fill Rate	s Rate	Awards
Program		Trend	Trend	Trend	% Trend	Trend	Trend	Trend
Engineering	2007-2008	37	2.0	584	21.4%	111.4%	74.6%	0
	2008-2009	39	1.7	729	16.7%	117.7%	78.0%	0
	2009-2010	33	2.4	434	11.8%	62.5%	66.3%	0
	2010-2011	36	2.1	541	0.0%	109.5%	74.5%	0
	% Change	-3.4%	+4.3%	-7.4%	-100.0%	-1.7%	-0.2%	
	4-Yr. Trend	stable	stable	stable	decreasing	stable	stable	
Technology &	2007-2008	532	37.5	451	38.1%	73.1%	74.3%	91
Aviation	2008-2009	591	37.2	505	30.9%	69.6%	74.9%	85
Division	2009-2010	757	45.4	530	32.7%	82.1%	74.4%	59
TOTAL	2010-2011	675	44.7	480	33.7%	91.7%	76.1%	76
	% Change	+26.9%	+19.1%	+6.5%	-11.6%	+25.5%	+2.4%	-16.5%
	4-Yr. Trend	increasing	increasing	stable	decreasing	increasing	stable	decreasing

1.1. Describe how these trends have affected student achievement and student learning:

- The data for Full-Time % Trend has changed due to the one full-time instructor teaching only within the Architecture Department as well as taking on additional duties. The number of adjuncts has not changed over the last three years. There are currently two adjuncts teaching 100% of the courses.
- The low award trend is most likely due to that students are attending because they want relevant job training and for the most part are ignoring degree or transfer completions.
- 1.2. Is there other relevant quantitative/qualitative information that affects the evaluation of your program?

No.

## 2.0. Student Learning and Curriculum

Provide the following information on each department and program within the division.

List each Department within the Division as well each degree, certificate, or other program* within the Department	Active Courses with Identified SLOs		Active Courses Assessed		Course Sections Assessed		If this area has program outcomes have they been assessed?
	n/n	%	n/n	%	n/n	%	Yes or No
ENGINEERING	1/9	11	0/9	0	0/9	0	No

#### 2.1. Please comment on the percentages above.

- Most active course outlines are/were in need of revision, so SLO's and assessment of those courses are showing as a low percent.
- 2.2. a) Please provide a *link*\* to all program <u>assessment timelines</u> here. This link could be to your division /department website, eLumen, etc.
  - b) Briefly summarize any pedagogical or curricular elements of courses/programs that have been changed or will be changed as a result of developing assessment timelines and course/program alignment matrixes.
  - c) Based on the program assessment timelines you have developed and the evidence you have gathered, please comment briefly on how far along your division/program is in the assessment process.

a) There is no link to program assessment timelines.

b) No courses have been changed due to alignment matrices.

c) Courses need to have SLOs written before the assessment process can begin.

- 2.3 a) Please provide a *link* to any program and/or relevant course <u>assessment reports</u>. Does the evidence from assessment reports show that students are achieving the desired learning outcomes?
  - b) Please briefly summarize any pedagogical or curricular elements of courses and/or programs that have been changed or will be changed as a result of the assessments conducted.

a) There is no link to course assessment reports.

- b) No courses have been changed due to assessment conducted.
- 2.4 Please list all courses which have been reviewed in the last academic year. Note: Curriculum Review is required by the Chancellors Office every 6 years.

Engr 114

2.5 Please list all degree/certificate programs within the division that were reviewed in the last academic year.

None.

2.6 For each program that was reviewed, please list any changes that were made. No changes to the existing certificate.

### **3.0. Reflection and Action Plans**

3.1 What recent activities, dialogues, discussions, etc. have occurred to promote student learning or improved program/division processes?

Ongoing discussion with students (both current and former) regarding the course offerings. The development of the Solidworks courses are a direct result of this.

3.2 Using the weaknesses, trends and assessment outcomes listed on the previous pages as a basis for your comments, please <u>briefly</u> describe your plans and/or modifications for program/division improvements

Plans or Modifications	Anticipated Improvements					
Formation of an Advisory Board of industry professionals.	Development of curriculum that is relevant to industry needs.					
Increased SLO assessments of current courses.	Better understanding of whether course goals are being met.					

Format Rev. 8.31.11

I:TA.En-1

# 2011 PROGRAM REVIEW

# Section 4 IHAC Request

If this is a repeat request, please list the Resource ID code or year requested: \_\_\_\_

**4.1** The Office of Instruction will provide data on instructional hires during the past five years, including the full-time percentage of each new hire.

a) Number of full-time faculty currently assigned to the Program	0
b) Number of full-time faculty assigned to the Program in 2005	0
c) Does this position cover classes currently taught by adjuncts? Yes or No	No
c) Does this position contribute to expansion of the program? Yes or No	Yes

**TECHNOLOGY/AVIATION** 

FT Instructor-Engineering

### 4.2 CPF Index (Committees Per Full-time Faculty)

1. Total number of full-time faculty members in this department/program.	0
2. Total number of committees in which all FT faculty members in this area participate (Governance and other campus related committees & participation).	0
3. CPF INDEX (Total of # 2 divided by #1)	0

### **4.3** Status of Released Time Faculty

Faculty Name	Release Time Position	% RT	Term of Assignment
Not applicable			

### 4.4 How does this assignment relate to the college's Mission Statement?

The Engineering program is directly tied to transfer and workforce development. It meets the mission of the college by providing students with the knowledge, skills, opportunity and support necessary to meet their career goals.

**4.5** How does this position relate to the objectives and functions of the college?

a) Associate Degree

- d) Basic Skills development
- b) Transfer to a four-year institution
- e) Noncredit Adult Education
- c) Career and Technical Education
- f) Personal enrichment
- a) An Associate in Science Degree will be attainable for Engineering students.
- b) Transfer to a four-year institution is also attainable for the program as all offerings are designed to be articulated with the CSU system.
- c) Engineering will also be considered for certificate status with State approval.

**4.6** Describe how this position enhances student success. Ex: enhances instructional skills, meets community or industry needs. Contributes to state of the art technical education, etc. What measureable outcome will result from filling this request?

This position will be the needed link between disciplines to create an effective STEM (Science, Technology, Engineering and Math) program now being funded for development with significant Federal monies.

This position will enhance student success because it will bring a contextualized aspect to subjects that many students find perplexing such as math. The purpose is to match the academics required in STEM programs with real world applications. This will demonstrate to the student that they are not taking a class just to satisfy a graduation or transfer requirement.

This will also offer expanded opportunities for student success within our current Engineering Support program.

. 4.7 Are there anticipated negative impacts for not hiring this position? If so describe.

The anticipated negative impacts of not hiring this position are as follows:

- Unable to participate in \$11M STEM grant funding for the next 5 years
- Unable to write and articulate a large number of engineering courses needed for transfer as outlined in the grant contracts
- Unable to create SLO's and Assessments needed for revised or new STEM coursework
- Difficulty in participating in Program Review for this program

4.8 Are there any other special concerns not previously identified? If so, please explain

### **APPROVALS**

AGENCY	DECISION							
The Program Review Committee	Well supported							
has reviewed the data, outcomes and plans in the report and finds this request to be: <b>NA</b>	Adequately supported							
	Not supported							
	Reason:	Sect.1: Data		Sect.2: SLOs		Sect.3: Plans	Other:	
Standing Committee Review of Resource Request					Prioritization			
Committee: Academic Affairs					Sc	ore		

2011 PROGRAM REVIEW Section 4	TECHNOLOGY/AVIATION: Maintenance Contract- Stratasvs 3D Printer	I:TA.En-2
Resource Request		
Type of Request:	ctional Equip Conference/Travel	New space Training Other
Mandatory: Is this request for one-time fund	ding? OR Does this request require ong	joing funding?_X
If this is a repeat request, please list the Res	source ID code or year requested:	
	Health & Safety Issue Lega Accreditation Requirement Cont	
<b>4.1</b> . Clearly describe the resource request.		
Maintenance contract for Stratasys 3	BD printer in the Architecture Lab.	

Amount requested \$ 2,833.75

**4.2.** Justification and Rationale: What planning goal, core competency or course/program SLO does this request address? Use data from your report to support your request.

Used for creating 3D models for Arch 120, Arch 130, Arch 240, and Arch 251.

4.3. What measurable outcome will result from filling this resource request?

The Engineering program needs real leadership to meet the mission of the college in all respects, not by proxy of the Division Chair.

Maintain 3D printer for student projects.

### APPROVALS

AGENCY	DECISION							
The Program Review Committee	Well supported							
has reviewed the data, outcomes	Adequately supported							
and plans in the report and finds this request to be:	Not supported							X
	Reason:	Sect.1: Data		Sect.2: SLOs		Sect.3: Plans	Other:	
Standing Committee Review of Resource Request					Prioritization			
Committee: Academic Affairs					Sc	ore		

2011 PROGRAM REVIEW Section 4 Resource Request	TECHNOLOGY/AVIATION- ENGINEERING Software Subscription-Autodesk	I:TE.En-3
Resource Request		
	onal Equip Conference/Travel	_ New space _ Training Other
Mandatory: Is this request for one-time fundi	ng? OR Does this request require ongo	ing funding?_X
If this is a repeat request, please list the Reso	ource ID code or year requested:	
Mark if the following apply to this request:	_ Health & Safety Issue Legal _ Accreditation Requirement Contra	
<b>4.1</b> . Clearly describe the resource request.		
Subscription for software for Autodesk	Building & Design Suite.	
Amount requested \$2,850.00		

**4.2.** Justification and Rationale: What planning goal, core competency or course/program SLO does this request address? Use data from your report to support your request.

Used to m	naintain so	ftware licens	ses for all	Architecture	and Engineer	classes.
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**4.3.** What measurable outcome will result from filling this resource request? Maintain 3D printer for student projects.

### APPROVALS

AGENCY	DECISION								
The Program Review Committee has reviewed the data, outcomes and plans in the report and finds this request to be:	Well supp	Well supported							
	Adequately supported								
	Not supported							X	
	Reason:	Sect.1: Data		Sect.2: SLOs		Sect.3: Plans	Other:	·	
		1							
Standing Committee Review of Resource Request Committee: Academic Affairs						ioritization			