



**PROGRAM TITLE : Civil Engineering AS**  
**PROGRAM GOAL : Local**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

The civil engineering AS degree program gives civil engineering students the opportunity to transfer to a 4-year university program with an AS degree. While the minimum qualification for engineers is the bachelor of science (B.S.) degree community college students routinely accumulate in excess of 70 units before transferring. The risk is that if an engineering transfer student does not finish their BS degree they are essentially without any credentials. This program ensures that engineering transfer students are likely to earn an A.S. degree, which may help them with pre-bachelor degree employment if necessary. Students earning this degree will have engineering calculation and simulation skills as well as fundamental knowledge of physics and mathematics needed to pursue a 4-year degree in civil engineering.

#### **Program Learning Outcomes:**

Program Learning Outcomes: Upon completion of this program, students will apply knowledge of mathematics, science and engineering; identify, form and solve engineering problems, and demonstrate introductory skills using modern engineering tools necessary for engineering practice. The AS degree in civil engineering prepares students for transfer to a 4-year civil engineering university program.

### **ITEM 2: CATALOG DESCRIPTION**

Students completing an AS degree in civil engineering develop abilities in mathematics, basic sciences, engineering topics such as structural statics, as well as general education subjects that complement technical content. Students must complete all required courses for a total of 37 units.

### **ITEM 3: MASTER PLANNING**

### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

Annual Completers : 5

### **ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

Civil engineering transfer certificate that is in lieu of an AST which engineering is exempt.

### **ITEM 6. EXTERNAL CERTIFICATION**

### **ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

Pasadena City College has model curricula programs in mechanical/manufacturing/aerospace emphasis, electrical engineering emphasis and civil engineering emphasis but not computer engineering. These programs compare with GCC's Non-Degree Certificate programs in civil engineering, electrical engineering and mechanical, aerospace, and manufacturing engineering. PCC does not have AS degrees in engineering. The opportunity for engineering transfer students to earn an AS degree is important because it demonstrates to transfer universities the ability to complete a program. Additionally, having an AS degree allows for a secondary or back up career pathway in the event that the student is unable to continue to a BS degree. This



**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

may help underrepresented students take longer to graduate due to economic or personal reasons because they have a credential that can help with employment opportunities. Of course, the goal is always for engineering students to successfully complete their BS degree and all of the AS degree coursework in engineering is transferable to engineering programs at CSU's and UC's.

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Civil Engineering AS

**REQUIRED COURSES**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>REQUIRED COURSES WITHOUT OPTIONS</b>			25 - 25
MATH	<b>103</b>	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning Mathematical Concepts	5
MATH	<b>104</b>	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
PHY	<b>101</b>	Engineering Physics	B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5



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	PHY	102	Engineering Physics	B = Physical Universe and its Forms,B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
	CHEM	101	General Chemistry	B = Physical Universe and its Forms,B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
			<b>Engineering Courses</b>			12 - 12
	ENGR	140	Materials Science and Engineering			3
	ENGR	141	Materials Science and Engineering Laboratory			1
	ENGR	100	Introduction To Engineering			3
	ENGR	122	Engineering Graphics			3
	ENGR	152	Engineering Mechanics - Statics			3
	ENGR	156	Programming and Problem- Solving in MATLAB			3
	ENGR	180	Surveying			3
	ENGR	230	Dynamics			3
	ENGR	241	Strength of Materials			3
	ENGR	240	Electrical Engineering Fundamentals			4



**PROGRAM TITLE : Computer Engineering AS**  
**PROGRAM GOAL : Local**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

The computer engineering AS degree program gives computer engineering students the opportunity to transfer to a 4-year university program with an AS degree. While the minimum qualification for engineers is the bachelor of science (B.S.) degree community college students routinely accumulate in excess of 70 units before transferring. The risk is that if an engineering transfer student does not finish their BS degree they are essentially without any credentials. This program ensures that engineering transfer students are likely to earn an A.S. degree, which may help them with pre-bachelor degree employment if necessary. Students earning this degree will have engineering calculation and simulation skills as well as fundamental knowledge of physics and mathematics needed to pursue a 4-year degree in computer engineering.

#### **Program Learning Outcomes:**

Program Learning Outcomes: Upon completion of this program, students will apply knowledge of mathematics, science and engineering; identify, form and solve engineering problems, and demonstrate introductory skills using modern engineering tools necessary for engineering practice. The AS degree in Computer Engineering prepares students for transfer to a 4-year computer engineering university program.

1. use science and mathematical skills required for occupational needs;
2. analyze engineering problems and make appropriate decisions with the supervision of a licensed engineer;
3. demonstrate appropriate technical written, verbal, drawing, and communication skills;
4. work effectively on a team and exercise initiative and function in a leadership role;
5. design a system, component, or process with supervision of a licensed engineer to meet desired needs.

### **ITEM 2: CATALOG DESCRIPTION**

Students completing an AS degree in Computer Engineering develop abilities in discrete mathematics, basic sciences, engineering topics such as circuit design, as well as general education subjects that complement technical content. Students must complete all required courses for a total of 37 units.

Program Learning Outcomes: Upon completion of this program, students will apply knowledge of mathematics, science and engineering; identify, form and solve engineering problems, and demonstrate introductory skills using modern engineering tools necessary for engineering practice. The AS degree in Computer Engineering prepares students for transfer to a 4-year computer engineering university program.

### **ITEM 3: MASTER PLANNING**

#### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

Annual Completers : 5

### **ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**



**PROGRAM TITLE : Computer Engineering AS**  
**PROGRAM GOAL : Local**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

Computer engineering is closely related to electrical engineering and an electrical engineering transfer certificate exists as a substitute for the AST from which engineering is exempt.

**ITEM 6. EXTERNAL CERTIFICATION**

**ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

Pasadena City College has model curricula programs in mechanical/manufacturing/aerospace emphasis, electrical engineering emphasis and civil engineering emphasis but not computer engineering. These programs compare with GCC's Non-Degree Certificate programs in civil engineering, electrical engineering and mechanical, aerospace, and manufacturing engineering. PCC does not have AS degrees in engineering. The opportunity for engineering transfer students to earn an AS degree is important because it demonstrates to transfer universities the ability to complete a program. Additionally, having an AS degree allows for a secondary or back up career pathway in the event that the student is unable to continue to a BS degree. This may help underrepresented students take longer to graduate due to economic or personal reasons because they have a credential that can help with employment opportunities. Of course, the goal is always for engineering students to successfully complete their BS degree and all of the AS degree coursework in engineering is transferable to engineering programs at CSU's and UC's. College of the Canyons offers an area of specialization in computer engineering with a focus on computer hardware design and manufacture.

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Computer Engineering AS

**REQUIRED COURSES**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>REQUIRED COURSES WITHOUT OPTIONS</b>			25 - 25
MATH	103	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5



NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS

MATH	104	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
MATH	108	Ordinary Differential Equations	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
PHY	101	Engineering Physics	B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
PHY	102	Engineering Physics	B = Physical Universe and its Forms, B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
		<b>Engineering and Computer Science Courses</b>			12 - 12
ENGR	100	Introduction To Engineering			3
ENGR	125	Programming Concepts and Methodologies for Engineers			4



**PROGRAM TITLE : Computer Engineering AS**  
**PROGRAM GOAL : Local**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

ENGR	<b>240</b>	Electrical Engineering Fundamentals			4
CS/IS	<b>125</b>	Discrete Structures For Computing			4
CS/IS	<b>211</b>	Data Structures			4



**PROGRAM TITLE : Customer Service Certificate**

**PROGRAM GOAL : CTE**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

Students will be able to demonstrate the skills necessary to provide customer service in a business environment. Skills and knowledge covered are: internal and external customers, customer expectations and satisfaction, communication, team building, decision making, problem solving, conflict resolution, time management, stress management, working with difficult personalities, attitude management, values and ethics and managing organizational change.

#### **Program Learning Outcomes:**

1. Communicate effectively and genuinely with customers
2. Apply strategies to better deal with challenging customers
3. Explain the value of providing exceptional customer service in today's business environment

### **ITEM 2: CATALOG DESCRIPTION**

This certificate gives students the skills necessary to provide customer service in a business environment. Skills and knowledge covered are: internal and external customers, customer expectations and satisfaction, communication, team building, decision making, problem solving, conflict resolution, time management, stress management, working with difficult personalities, attitude management, values and ethics and managing organizational change. Required units/hours total 176-192.

### **ITEM 3: MASTER PLANNING**

### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

This program may increase enrollment as it provides students with a short-term certificate completion option and meets labor market demand for applicant who are certified in customer service. In addition, this program may attract students who will enroll in other program certificates available in noncredit such as: Office Clerk 1, 2, and 3.

Annual Completers : 35

### **ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

Office Clerk I, II, and III (noncredit)

### **ITEM 6. EXTERNAL CERTIFICATION**

### **ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

College of the Canyons, Customer Service Certificate





**PROGRAM TITLE : Customer Service Certificate**  
**PROGRAM GOAL : CTE**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

Los Angeles City College, Customer Service Skills

Santa Monica College, Customer Service Skill Builder Certificate

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Customer Service Certificate

**REQUIRED COURSES**

	<b>Subject</b>	<b>Number</b>	<b>Title</b>	<b>CSU-GE</b>	<b>IGETC</b>	<b>Units/Hours</b>
			<b>REQUIRED COURSES WITHOUT OPTIONS</b>			176 - 192
and	OBT	<b>11</b>	BEGINNING KEYBOARDING			0
and	OBT	<b>35</b>	ON-THE-JOB COMMUNICATION			0
and	OBT	<b>40</b>	21 <sup>ST</sup> CENTURY EMP. STRATEGIES			0
and	OBT	<b>50</b>	CUSTOMER SERVICE SKILLS			0



**PROGRAM TITLE : Electrical Engineering AS Degree**

**PROGRAM GOAL : Local**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

The electrical engineering AS degree program gives electrical engineering students the opportunity to transfer to a 4-year university program with an AS degree. While the minimum qualification for engineers is the bachelor of science (B.S.) degree community college students routinely accumulate in excess of 70 units before transferring. The risk is that if an engineering transfer student does not finish their BS degree they are essentially without any credentials. This program ensures that engineering transfer students are likely to earn an A.S. degree, which may help them with pre-bachelor degree employment if necessary. Students earning this degree will have engineering calculation and simulation skills as well as fundamental knowledge of physics and mathematics needed to pursue a 4-year degree in electrical engineering.

#### **Program Learning Outcomes:**

Program Learning Outcomes: Upon completion of this program, students will apply knowledge of mathematics, science and engineering; identify, form and solve engineering problems, and demonstrate introductory skills using modern engineering tools necessary for engineering practice. The AS degree in Electrical Engineering prepares students for transfer to a 4-year electrical engineering university program.

1. use science and mathematical skills required for occupational needs;
2. analyze engineering problems and make appropriate decisions with the supervision of a licensed engineer;
3. demonstrate appropriate technical written, verbal, drawing, and communication skills;
4. work effectively on a team and exercise initiative and function in a leadership role;
5. design a system, component, or process with supervision of a licensed engineer to meet desired needs.

### **ITEM 2: CATALOG DESCRIPTION**

Students completing an AS degree in Electrical Engineering develop abilities in mathematics, basic sciences, engineering topics such as circuit design, as well as general education subjects that complement technical content. Students must complete all required courses for a total of 37 units.

### **ITEM 3: MASTER PLANNING**

### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

Annual Completers : 5

### **ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

Non degree engineering transfer certificate for electrical track exists as a substitute for the AST from which engineering is exempt.

### **ITEM 6. EXTERNAL CERTIFICATION**



**PROGRAM TITLE : Electrical Engineering AS Degree**  
**PROGRAM GOAL : Local**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

**ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

Pasadena City College has model curricula programs in mechanical/manufacturing/aerospace emphasis, electrical engineering emphasis and civil engineering emphasis. These programs compare with GCC's Non-Degree Certificate programs in civil engineering, electrical engineering and mechanical, aerospace, and manufacturing engineering. PCC does not have AS degrees in engineering. The opportunity for engineering transfer students to earn an AS degree is important because it demonstrates to transfer universities the ability to complete a program. Additionally, having an AS degree allows for a secondary or back up career pathway in the event that the student is unable to continue to a BS degree. This may help underrepresented students take longer to graduate due to economic or personal reasons because they have a credential that can help with employment opportunities. Of course, the goal is always for engineering students to successfully complete their BS degree and all of the AS degree coursework in engineering is transferable to engineering programs at CSU's and UC's.

**Engineering is not a CTE program.**

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Electrical Engineering AS Degree

**REQUIRED COURSES**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>REQUIRED COURSES WITHOUT OPTIONS</b>			25 - 25
MATH	103	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5



PROGRAM TITLE : Electrical Engineering AS Degree

PROGRAM GOAL : Local

NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS

MATH	104	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
MATH	108	Ordinary Differential Equations	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
PHY	101	Engineering Physics	B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
PHY	102	Engineering Physics	B = Physical Universe and its Forms, B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
		<b>Engineering Courses</b>			12 - 12
ENGR	100	Introduction To Engineering			3
ENGR	132	Introduction to Digital Electronics			3



**PROGRAM TITLE : Electrical Engineering AS Degree**

**PROGRAM GOAL : Local**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

ENGR	<b>125</b>	Programming Concepts and Methodologies for Engineers			4
ENGR	<b>140</b>	Materials Science and Engineering			3
ENGR	<b>131</b>	Electronics and Electrical Circuits			3
ENGR	<b>152</b>	Engineering Mechanics - Statics			3
ENGR	<b>240</b>	Electrical Engineering Fundamentals			4



**PROGRAM TITLE : AS Exercise Science**

**PROGRAM GOAL : Local**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

Upon completion of this program, students will demonstrate the knowledge, skills and abilities required for the NASM-CPT exam; demonstrate the knowledge, skills and abilities required for the AFAA – GFI exam; demonstrate understanding of the fundamental science of kinesiology and apply its principles to assess, design, implement and lead fitness programs and sessions for individuals and groups in a diverse population; and utilize universal risk management strategies.

#### **Program Learning Outcomes:**

- demonstrate knowledge, skills and abilities required for the NASM-CPT and AFAA-GFI exams
- apply fundamental science of kinesiology to assess, design, implement and lead fitness programs for individuals and groups in a diverse population • utilize universal risk management strategies demonstrate knowledge, skills and abilities required for the NASM-CPT and AFAA-GFI exams apply fundamental science of kinesiology to assess, design, implement and lead fitness programs for individuals and groups in a diverse population utilize universal risk management strategies

### **ITEM 2: CATALOG DESCRIPTION**

Associate of Science Degree in Exercise Science is designed to prepare students with the knowledge, skills and abilities required to become Personal Trainers and/or Group Fitness Instructors. Practical experience is integrated into curriculum for the development of skill mastery. Students are recommended to have basic knowledge of human biology, basic English writing and speaking skills, and the ability to perform moderate physical activity before beginning this program. Students must complete all required core courses for a total of 18-24 units.

### **ITEM 3: MASTER PLANNING**

### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

Annual Completers : 10

### **ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

Fitness Specialist Certificate.

### **ITEM 6. EXTERNAL CERTIFICATION**



**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

**ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

To our knowledge, no programs currently exist at any of the colleges in the service area around GCC, including LA Mission, LA Pierce, LA Valley, Pasadena City College or Citrus College. Moorpark College is the closest that offers an AS in Exercise Science degree.

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** AS Exercise Science

**REQUIRED COURSES**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>REQUIRED COURSES WITHOUT OPTIONS</b>			14 - 17
KIN	151	Applied Exercise Science			4
KIN	155	Foundations for Group Exercise Instruction			3
KIN	156	Foundations For Personal Fitness Training			4
KIN	167	Weight Training and Conditioning I	E = Lifelong Understanding & Self-Development		2
KIN	168	Weight Training and Conditioning II	E = Lifelong Understanding & Self-Development		1.5
HLTH	102	Standard First Aid And CPR	E = Lifelong Understanding & Self-Development		4
		<b>Select one course from the following:</b>			2 - 4
KIN	158	Fitness Training for Special Populations			0 - 0



NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS

KIN	157	Prevention And Care Of Athletic Injuries			3
HLTH	128	Nutrition For Physical Fitness And Disease Prevention			3
ENTRE	101	Concepts of Entrepreneurship			2
ENTRE	102	The Entrepreneurial Mindset			3
		<b>Select two courses from the following (KIN 50 may be taken twice)</b>			2 - 3
PE	108	Group Exercise I	E = Lifelong Understanding & Self-Development		1
PE	110	Indoor Cycling I	D = Social, Political, & Economic Institutions, E = Lifelong Understanding & Self-Development		1
PE	111	Intermediate Indoor Cycling for Fitness	E = Lifelong Understanding & Self-Development		1
PE	180	Running Aerobics I	E = Lifelong Understanding & Self-Development		1





NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS

PE	181	Running Aerobics II	E = Lifelong Understanding & Self- Development		1
PE	220	Kickboxing I	E = Lifelong Understanding & Self- Development		1
PE	221	Kickboxing II	E = Lifelong Understanding & Self- Development		1
DANCE	101	Introduction To Dance	E = Lifelong Understanding & Self- Development		1.5
DANCE	190	Beginning Yoga	E = Lifelong Understanding & Self- Development		1.5
DANCE	194	Pilates	E = Lifelong Understanding & Self- Development		1.5
KIN	50	Internship in Kinesiology			3
		<b>Recommended Preparation</b>			0 - 0



**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

BIOL	114	Human Form and Function	B = Physical Universe and its Forms, B2 Biological Sciences		3
BIOL	115	Human Biology	B = Physical Universe and its Forms, B2 Biological Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Biological Sciences	4
ENGL	120	Composition and Reading	C = Arts, Literature, Philosophy, and Foreign Language, C2 Humanities, D = Social, Political, & Economic Institutions	Social/Behavioral Sciences, Arts and Humanities, Humanities	3
ESL	151	Reading And Composition V			4



**PROGRAM TITLE : Gender and Sexuality Studies AA-T**

**PROGRAM GOAL : Transfer**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

The Gender and Sexuality Studies AA-T interdisciplinary transfer degree will draw from coursework in the Social Sciences and the Humanities. Through their course of study, students will explore contemporary and historical topics related to women, gender, and sexuality through a variety of disciplinary lenses including History, English Literature, Philosophy, Psychology, Anthropology, and Sociology.

Students will acquire skills to think critically, move beyond surface assumptions, and interrogate their world through the lens of gender and sexuality. The Gender and Sexuality Studies AA-T will prepare students for transfer as well as equip them with skills and knowledge to navigate their careers with an understanding of the social dynamics of structural power and inequality.

This program will fulfill the college's need to provide a path of study for students interested in focusing on the topics of women, gender, and sexuality as well as how these topics intersect with other aspects of identity and power such as race, class, and nationality. Presently Glendale Community College offers a number of courses across disciplines that are focused on academic inquiry through the lens of gender and/or sexuality. This newly proposed AA-T will allow students to choose a course of study that will unite these commonly themed courses across disciplines in a course of study that leads to successful completion of an Associate in Arts and transfer to a four-year institution.

#### **Program Learning Outcomes:**

Upon completion of this program, students will have the knowledge and skills to critically examine individual experiences, social institutions, and historical perspectives through the lens of gender and sexuality; to analyze how these formations intersect with other socially salient aspects of identity including but not limited to race, class, and nation; and articulate connections between global, regional, and local issues pertinent to the study of gender and sexuality.

### **ITEM 2: CATALOG DESCRIPTION**

The AA-T in Gender and Sexuality Studies for Transfer Degree is designed to prepare the student for transfer to four-year institutions of higher education and is specifically intended to satisfy the lower division requirements for the Baccalaureate Degree in Gender and Sexuality Studies at a California State University. The knowledge and skills offered in this



**PROGRAM TITLE : Gender and Sexuality Studies AA-T**

**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

degree lead students to develop foundational knowledge in the interdisciplinary field of Gender and Sexuality Studies including those topics and issues related to global, national, and local aspects of the field of study. Required units for major: 18-20 units.

**ITEM 3: MASTER PLANNING**

**ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

It will not create any dramatic enrollment changes. It will be possible for students to move between this program and other programs within Social Sciences, such as Anthropology, Psychology, and Sociology.

Annual Completers : 2



**PROGRAM TITLE : Gender and Sexuality Studies AA-T**  
**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

**ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

Sociology, Social Sciences

**ITEM 6. EXTERNAL CERTIFICATION**

**ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

N/A

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Gender and Sexuality Studies AA-T

**REQUIRED COURSES**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>Required Core. Select three of the following classes.</b>			9 - 9
SOC S	130	Introduction to LGBTQ Studies	D = Social, Political, & Economic Institutions	Social/ Behavioral Sciences	3
ETH S	121	Ethnic And Racial Minorities	D = Social, Political, & Economic Institutions	Social/ Behavioral Sciences	3
SOC	104	Sociology Of Sex And Gender	E = Lifelong Understanding & Self-Development	Social/ Behavioral Sciences	3

**Restricted Elective Courses**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>Select three courses from at least two of the following areas. Only one course from Area 4 may be used.</b>			9 - 11
		<b>Area 1: History or Government</b>			0 - 0



**PROGRAM TITLE : Gender and Sexuality Studies AA-T**  
**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

HIST	111	The Woman In American History	C = Arts, Literature, Philosophy, and Foreign Language, C2 Humanities	Arts and Humanities, Humanities	3
HIST	115	Rebellious Women In Modern America		Humanities	3

		<b>Area 2: Arts and Humanities</b>			0 - 0
ART	118	Women In Visual Arts	C = Arts, Literature, Philosophy, and Foreign Language, C1 Arts	Arts and Humanities, Art	3
ENGL	111	Women In Literature	C = Arts, Literature, Philosophy, and Foreign Language, C2 Humanities	Arts and Humanities, Humanities	3
		<b>Area 3: Social Science</b>			0 - 0
ETH S	110	Contemporary Ethnic Women	D = Social, Political, & Economic Institutions	Social/ Behavioral Sciences	3
PSYCH	105	Human Sexuality	E = Lifelong Understanding & Self Development		3
ANTHR	114	Gender, Sexuality, and Culture	D = Social, Political, & Economic Institutions	Social/ Behavioral Sciences	3



PROGRAM TITLE : Gender and Sexuality Studies AA-T  
 PROGRAM GOAL : Transfer

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

PSYCH	111	Women: Mind And Body	E = Lifelong Understanding & Self Development		3
PSYCH	113	Psychology of Women	E = Lifelong Understanding & Self Development	Social/ Behavioral Sciences	3
		<b>Area 4: Quantitative Reasoning and Research Methods</b>			0 - 0

PSYCH	200	Research Methods for Psychology	B = Physical Universe and its Forms,B4 Mathematic s		3.5
MATH	136	Statistics	B = Physical Universe and its Forms,B4 Mathematic s	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	4
		<b>Area 5: Major Preparation</b>			0 - 0
ETH S	120	Mexican-American Studies			3
ETH S	123	Asians in America			3
ETH S	125	Native American Studies	D = Social, Political, & Economic Institutions	Social/ Behavioral Sciences	3



**PROGRAM TITLE : Gender and Sexuality Studies AA-T**  
**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

ETH S	<b>132</b>	The African American Experience In The United States	D = Social, Political, & Economic Institutions	Social/ Behavioral Sciences	3
HLTH	<b>106</b>	Women's Health Education	E = Lifelong Understanding & Self Development		3





**PROGRAM TITLE : Geology AS-T**  
**PROGRAM GOAL : Transfer**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

The AS-T in Geology provides students with a clear path for transferring into a major at CSU, UC, and many other colleges and universities in geology, geophysics, geochemistry, and related earth science fields. Students intending to major in geology, geophysics, geochemistry, and earth sciences need calculus, chemistry and physics as well as a host of upper division geology courses to satisfy major requirements. Transfer institutions encourage completion of physics after transfer rather than before so other non-science general education courses can be completed prior to transfer. The AS-T in geology proposed here conforms to the state-wide transfer curriculum model.

#### **Program Learning Outcomes:**

We are proposing the AS-T in Geology to come into provide a clear pathway for potential geology/earth science majors. The PLO's for the degree will be:

Students with an AS-T in Geology will be able to:

- 1) use evidence-based approaches to explore and evaluate global issues such as natural disaster preparation, energy, resources, and climate;
- 2) apply reasoning to evaluate hypotheses and theories;
- 3) analyze, interpret, and present research evidence.

### **ITEM 2: CATALOG DESCRIPTION**

The AS-T in Geology provides a foundation in geology for students planning to transfer into a baccalaureate program in geology. Successful completion of the transfer degree guarantees the student acceptance to a California State University to pursue a baccalaureate degree in geology or a related field.

### **ITEM 3: MASTER PLANNING**

### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

This program will serve the few students at GCC who are interested in pursuing a major in geology at a transfer institution. From my 20+ years experience teaching full-time at GCC, I estimate the number of potential completers of this program to be less than 5 most years. If the program is able to grow, it is unlikely to significantly impact enrollment in any of the required courses. Students pursuing this program will be able to shift into a Math AS-T, preparation for a chemistry major,



**PROGRAM TITLE : Geology AS-T**  
**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

Biology AS-T or Physics AS-T if they so choose. There is also a potential for students in this program to shift to the Geography AA-T.

Annual Completers : 3

**ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

There are no related programs to this one.

**ITEM 6. EXTERNAL CERTIFICATION**

**ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Geology AS-T

**REQUIRED COURSES**

<b>Subject</b>	<b>Number</b>	<b>Course Title</b>	<b>CSU-GE</b>	<b>IGETC</b>	<b>Units</b>
GEOL	101	Physical Geology	B = Physical Universe and its Forms, B1 Physical Sciences	Physical/ Biological Sciences, Physical Sciences	3



**PROGRAM TITLE : Geology AS-T**

**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

GEOL	111	Physical Geology Laboratory	B = Physical Universe and its Forms, B3 Laboratory Activity	Physical/ Biological Sciences	1
GEOL	105	Earth and Life through Time	B = Physical Universe and its Forms, B1 Physical Sciences	Physical/ Biological Sciences, Physical Sciences	3
GEOL	115	Earth and Life through Time Lab	B3 Laboratory Activity		1
CHEM	101	General Chemistry	B = Physical Universe and its Forms, B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
CHEM	102	General Chemistry	B = Physical Universe and its Forms, B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5



**PROGRAM TITLE : Geology AS-T**  
**PROGRAM GOAL : Transfer**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

MATH	<b>103</b>	Calculus And Analytic Geometry	B = Physical Universe and its Forms,B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
MATH	<b>104</b>	Calculus And Analytic Geometry	B = Physical Universe and its Forms,B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5



**PROGRAM TITLE : Mechanical Engineering AS**

**PROGRAM GOAL : Local**

## **NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

### **ITEM 1: PROGRAM GOALS AND OBJECTIVES**

The mechanical engineering AS degree program gives mechanical engineering students the opportunity to transfer to a 4-year university program with an AS degree. While the minimum qualification for engineers is the bachelor of science (B.S.) degree community college students routinely accumulate in excess of 70 units before transferring. The risk is that if an engineering transfer student does not finish their BS degree they are essentially without any credentials. This program ensures that engineering transfer students are likely to earn an A.S. degree, which may help them with pre-bachelor degree employment if necessary. Students earning this degree will have engineering calculation and simulation skills as well as fundamental knowledge of physics and mathematics needed to pursue a 4-year degree in mechanical engineering.

#### **Program Learning Outcomes:**

Program Learning Outcomes: Upon completion of this program, students will apply knowledge of mathematics, science and engineering; identify, form and solve engineering problems, and demonstrate introductory skills using modern engineering tools necessary for engineering practice. The AS degree in Mechanical Engineering prepares students for transfer to a 4-year mechanical engineering university program.

1. use science and mathematical skills required for occupational needs;
2. analyze engineering problems and make appropriate decisions with the supervision of a licensed engineer;
3. demonstrate appropriate technical written, verbal, drawing, and communication skills;
4. work effectively on a team and exercise initiative and function in a leadership role;
5. design a system, component, or process with supervision of a licensed engineering to meet desired needs.

### **ITEM 2: CATALOG DESCRIPTION**

Students completing an AS degree in Mechanical Engineering develop abilities in mathematics, basic sciences, engineering topics such as mechanics, as well as general education subjects that complement technical content. Students must complete all required courses for a total 37 units. Program Learning Outcomes: Upon completion of this program, students will apply knowledge of mathematics, science and engineering; identify, form and solve engineering problems, and demonstrate introductory skills using modern engineering tools necessary for engineering practice. The AS degree in Mechanical Engineering prepares students for transfer to a 4-year mechanical engineering university program.

### **ITEM 3: MASTER PLANNING**

### **ITEM 4: ENROLLMENT AND COMPLETER PROJECTIONS**

This program should increase enrollment as potential students in our service area will choose engineering at GCC. Many courses in this program count towards physics, math and chemistry programs in addition to engineering.



**PROGRAM TITLE : Mechanical Engineering AS**  
**PROGRAM GOAL : Local**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

Annual Completers : 10

**ITEM 5. PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS**

Non-degree engineering transfer certificate for mechanical, manufacturing, and aerospace tracks exists as a substitute for the AST from which engineering is exempt.

**ITEM 6. EXTERNAL CERTIFICATION**

**ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA**

Pasadena City College has model curricula programs in mechanical/manufacturing/aerospace emphasis, electrical engineering emphasis and civil engineering emphasis. These programs compare with GCC's Non-Degree Certificate programs in civil engineering, electrical engineering and mechanical, aerospace, and manufacturing engineering. PCC does not have AS degrees in engineering. The opportunity for engineering transfer students to earn an AS degree is important because it demonstrates to transfer universities the ability to complete a program. Additionally, having an AS degree allows for a secondary or backup career pathway in the event that the student is unable to continue to a BS degree. This may help underrepresented students who take longer to graduate due to economic or personal reasons because they have a credential that can help with employment opportunities. Of course, the goal is always for engineering students to successfully complete their BS degree and all of the AS degree coursework in engineering is transferable to engineering programs at CSU's and UC's.

**ITEM 8: TABLE OF PROGRAM REQUIREMENTS**

**PROGRAM TITLE:** Mechanical Engineering AS

**REQUIRED COURSES**

Subject	Number	Title	CSU-GE	IGETC	Units
		<b>REQUIRED COURSES WITHOUT OPTIONS</b>			25-25
MATH	103	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5



NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS

MATH	104	Calculus And Analytic Geometry	B = Physical Universe and its Forms, B4 Mathematics	Mathematical Concepts /Quantitative Reasoning, Mathematical Concepts	5
PHY	101	Engineering Physics	B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
PHY	102	Engineering Physics	B = Physical Universe and its Forms, B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
CHEM	101	General Chemistry	B = Physical Universe and its Forms, B1 Physical Sciences, B3 Laboratory Activity	Physical/ Biological Sciences, Physical Sciences	5
		<b>Engineering Courses</b>			12-12
ENGR	100	Introduction To Engineering			3
ENGR	140	Materials Science and Engineering			3
ENGR	141	Materials Science and Engineering Laboratory			1
ENGR	241	Strength of Materials			3



**PROGRAM TITLE : Mechanical Engineering AS**  
**PROGRAM GOAL : Local**

**NARRATIVE & DOCUMENTATION FOR PROGRAM REVISIONS**

ENGR	<b>122</b>	Engineering Graphics			3
ENGR	<b>240</b>	Electrical Engineering Fundamentals			4
ENGR	<b>152</b>	Engineering Mechanics - Statics			3
ENGR	<b>230</b>	Dynamics			3
ENGR	<b>156</b>	Programming and Problem-Solving in MATLAB			3
		<b>REQUIRED COURSES WITH OPTIONS</b>			0 - 0