## April Degrees and Certificates Agenda Conference Room A 2pm-4pm April 1, 2009

#### 2:00 Review of February and March Minutes

- 2:15 New-Dental Hygiene-Restorative Dental Hygiene Certificate-Nancy Pilgrim/Josette Beach
- 2:30 Revision-Emergency Medical Technician-AAS-Mark Hornshu
  Revision-Emergency Medical Technician-Certificate-Mark Hornshu
- 3:00 Revision Electronic Engineering Technology: Renewable Energy Systems AAS-Sanda Williams
  Revision Electronic Engineering Technology- AAS-Sanda Williams
  Revision Electronic Engineering Technology: Biomedical Engineering Tech AAS-Sanda Williams
  Revision Electronic Engineering Technology: Wireless Data Com Tech AAS-Sanda Williams
  Revision Electronic Engineering Technology- Certificate-Sanda Williams
  Revision Electronic Engineering Technology: Renewable Energy Systems Certificate-Sanda
  Williams

#### 3:30 Consent Agenda

The following CIP code changes will align the AAS degrees, Certificates of Completion, and Career Pathway Certificates of Completion for **Computer Information Systems**.

- 1. AAS Computer Information Systems: **52.1201 to 11.0202**
- 2. Computer Information Systems Certificate: 52.1201 to 11.0202
- Computer Information Systems: Database Design and SQL Career Pathway Certificate: 11.0802
   to 11.0202
- 4. Computer Information Systems: Web Application Development Career Pathway Certificate: 11.0801 to 11.0202
- 5. Computer Information Systems: Oracle and SQL Career Pathway Certificate: 11.0802-11.0202
- 6. AAS Computer Information Systems: Network Systems Administration Option: **52.1201 to 11.1001**
- 7. Web Site Development and Design Certificate: **52.1299 to 11.0801**
- 8. **Title and CIP code change**: Marketing: Entry Level Sales and Service Career Pathway CIP 52.4201 to Retail Management: Retail Sales and Service 52.1803

- **Dental Laboratory Technology AAS**: should only be a 91 credit degree-the original had too many credits of General Education in it.
- Electronic Engineering Technology: Mechatronics AAS- should include EET 271 not 270.
- Microelectronics Technology AAS: is now 102 credits due to 3-4 credit conversion.
- Fire Protection AAS: is now 104 credits due to EMT 105 Increase.
- Sign Language Interpretation Program: Deaf Studies is no longer a related certificate.

#### 3:45 Curriculum Report

Steve Smith-Timeline

Sally Earll-Outcomes

## 4:00 Registrar's Report

Rebecca Mathern

# New Associate of Applied Science (AAS) Degree or Certificate Request Form

**Proposed Degree/Certificate Title:** Restorative Dental Hygiene Certificate (Business and Industry)

**Reason for New Degree/Certificate:** Provide Restorative Curriculum to Kaiser Employess in preparation for Regional Testing and Oregon Board of Dentistry License Endorsement. This certificate program could also be offered to future employees of industry groups such as Willamette Dental, Gentle Dental and Tender Care.

Requested Implementation Term: W'10
Has Degree/Certificate been validated by the Advisory Committee?
Proposed Degree/Certificate addresses the following Core PCC Outcomes:  (check all that apply)  Communication  Community and Environmental Responsibility  Critical Thinking and Problem Solving  Cultural Awareness  Professional Competence  Self-Reflection
List Degree/Certificate Outcomes:
Sample Outcomes

- Demonstrate an ability to analyze one's own subjective experience, interpersonal relationships, and the social-cultural context.
- Upload, test and deploy web pages containing JavaScript

## **New Degree/Certificate Outcomes**

 Demonstrate professional competence in clinical practice of restorative dentistry (placement, polishing and finishing amalgam and composite restorations) in preparation for regional board testing and Oregon Board of Dentistry licensing endorsement.

All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories:

- 1. Arts and Humanities
- 2. Mathematics, Natural and Physical sciences, Social Science
- 3. Social Science

#### **List Degree/Certificate Coursework:**

Course Number	Sample Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

Total Cradits	1
Total Credits	1 7

Course Number	Course Title	Credit
DH 110	Cariology	2
DH 230	Dental Materials	2
DH 240	Intro to Restorative Dentistry	2
DH 241	DH Restorative Dentistry I	4
DH 242	DH Restorative Dentistry II	4
DH 243	DH Restorative Dentistry III	1
DH 244	DH Restorative Dentistry IV	1
DH 245	DH Restorative Dentistry V	1
	,	
	Total Credits	17

For <u>New Certificate's of 45 credits or more</u>: Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html).

### **Impact on Other Areas of Instruction:**

Have you	ı talked	to other	area S	ACs?
marc you	iaincu	to ouici	arca L	T

#### **Contact Information:**

Submitted by: Josette Beach

Contact e-mail: 4235

#### **Next Steps:**

- 1. a. Save completed New AAS Degree/Certificate Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.
  - b. If needed, attach Related Instruction Form (http://www.pcc.edu/resources/academic/eac/degree/forms.html) to the same email.
- Download and print New AAS Degree/Certificate Signature Page Form
   (<u>http://www.pcc.edu/resources/academic/eac/degree/forms.html</u>) and get the appropriate signatures.
- 3. Staple signed New AAS Degree/Certificate Signature Page Form to a hard copy of New AAS Degree/Certificate Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

## **Business and Industry Certificate in Dental Hygiene Restorative**

### **Explanation**:

Beginning Fall Term of 2009 a cohort of 10 students employed by Kaiser Permanente will enroll in the Portland Community College Dental Hygiene Program. This cohort is being financially administered separately through the PCC Contract Ed Department and Kaiser, but will be delivered and directed through the current AAS Program at the college. It will consist of the same courses and number of credit hours as those taken by the traditional students in the program. Scheduling of the cohort will be designed in such a way that the Kaiser students will be able to work 20 hours/week, as required by Kaiser as conditions of their cohort membership.

In addition to delivery of the current AAS Dental Hygiene curriculum, Kaiser has also requested that Portland Community College provide additional training to allow for their cohort of students to gain licensure endorsement in the area of dental restorative functions. Restorative functions for dental hygienists was approved and entered into the Oregon State Practice Act in May of 2007 (Rule 818-035-0072). The PCC Dental Hygiene department has developed curriculum to deliver the necessary course work and clinical practice in order for students to complete board examination and apply for state licensure endorsement. This curriculum was submitted to the State Board of Dentistry and approved at its June 2008 meeting.

The Dental Hygiene department is requesting approval to add a new Business and Industry Certificate of completion consisting of the 17 credit hours of restorative curriculum. Because this is a Business and Industry certificate, it will not appear in the catalog. This request satisfies the Business and Industry Certificate state criteria in the definition below:

"Business and Industry" certificate of completion programs that are at least 12 and do not exceed 108 credits or equivalent contact/clock hours. Business and Industry programs are *closed enrollment* programs developed at the request of, and for the employees of, an employer. Typically, a new program. Requires Notice of Intent (for information and not adverse impact notification purposes) and application (either the "old" PGA modified in consultation with the assigned Specialist or the draft of the new PGA). Approved on behalf of the State Board by CCWD-OEII.

It is the hope of the department that future offerings of this certificate will be available for open enrollment of students.

# Associate of Applied Science/Certificate Revision Request Form

0	re/Certificate Title: Emergency Medical Technician (Certificate/Certificate Title: Emergency Medical Technician (Certificate/Certificate Title: Emergency Medical Technician (Certificate/Certificate)	,
Reason for Rev Submission of P	vision: rogram certificate and degree outcomes	
Request Imple	mentation Term: immediate	
List Current D Sample	egree/Certificate Prerequisites:	
Course Number	Course Title	Credit
CAS 110 CAS 175	Intro to Web Graphic-Fireworks Introduction to Flash	1 3
Current		
Course Number	Course Title	Credit
	no changes	
<ul><li>☑ No</li><li>If Yes, please li</li><li>Proposed</li></ul>	Yes st proposed prerequisites:	
Course Number	Course Title	Credit
	no changes	
No     If Yes, explain:	impact PCC Core Outcomes which Degree and/or Cere Yes  Degree/Certificate Outcomes: (REQUIRED) whether or	
•	Current Degree/Certificate Outcome	
	avaScript extensions to web pages est and deploy web pages containing JavaScript	
	Current Degree/Certificate Outcome	
\$ •		
	involve changing Degree/Certificate Outcomes?	

If Yes, list proposed outcomes: Proposed Degree/Certificate Outcome Proposed outcomes for Emergency Medical Technician One-Year Certificate Program: Act in accordance with the ethical and professional medical standards of the entry level EMT Basic Meet the academic eligibility requirements for taking both cognitive and practical State and National Certification examinations at the EMT Basic level Meet academic eligibility requirements to enter any Oregon Paramedic AAS degree program Demonstrate communication skills of the medical environment in order to develop and maintain professional client relationships at the EMT Basic level Demonstrate the professional and technical skill set necessary to meet the EMT Basic standard of care in a safe manner under diverse conditions For Certificates, does Revision involve changing Related Instruction? No No Yes If Yes, Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html). All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories: 1. Arts and Humanities 2. Mathematics, Natural and Physical sciences, Social Science 3. Social Science Does Revision involve changing coursework requirements? No No | | Yes If Yes, please list **ALL** current and proposed coursework: Sample **Course Number Course Title** Credit Intro to Web Graphic-Fireworks CAS 110 1 Introduction to Flash CAS 175 3

Current		
Course Number	Course Title	Credit
Proposed		
Course Number	Course Title	Credit

## **Total Number of Credits in Degree/Certificate:**

Current Credits: 67 Proposed Credits: 67

#### **Contact Information:**

Submitted by: Mark Hornshuh, Dennese Kelsay Contact e-mail: mhornshu@pcc.edu, dkelsay@pcc.edu

### **Next Steps:**

1. a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.

b. If needed, attach Related Instruction Form (http://www.pcc.edu/resources/academic/eac/degree/forms.html) to the same email.

- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

Emergency	/ Medical Technician-Certificate	
Course of		
Term 1		
HPE 295	Health and Fitness	3
EMT 100	Introduction to Emergency Medical Services	3
WR 121	English Composition	4
General Ed	lucation elective any	4
		14
Term 2		
MTH 65	Introduction Algebra	4
BI 231	Human Anatomy & Physiology I	4
EMT 105	EMT Basic - Part I (Increase)	5
SP	111 or Higher	3 to 4
General Ed	lucation elective - Social Science (PSY 101 or higher)	4
Term 3		
BI 232	Human Anatomy and Physiology II	4
EMT 106	EMT Basic - Part II	5
EMT 280B	(Inactivated)	
EMT 116	EMT Rescue	3
CIS 101	Or Higher	3 to 4
	or	
CAS 101	Or Higher	3 to 4
		15
Term 4		
BI 233	Human Anatomy and Physiology III	4
EMT 115	Crisis Intervention	3
EMT 117	Emergency Response Communication/Patient (Inactivated	d)
EMT 113	Emergency Response Communication	2
EMT 114	Emergency Response Transportation	2
EMT 118	EMT Medical Terminology	3
General Ed	lucation elective	4
		18
	Total	67

# Associate of Applied Science/Certificate Revision Request Form

_	re/Certificate Title: Emergency Medical Technician (AAS) ree/Certificate Title: Emergency Medical Technician (AAS)	
Reason for Rev Submission of P	vision: rogram certificate and degree outcomes	
Request Imple	mentation Term: immediate	
List Current D Sample	egree/Certificate Prerequisites:	
Course Number	Course Title	Credit
CAS 110 CAS 175	Intro to Web Graphic-Fireworks Introduction to Flash	1 3
Current		
Course Number	Course Title	Credit
	no changes	
<ul><li>☑ No</li><li>If Yes, please li</li><li>Proposed</li></ul>	Yes st proposed prerequisites:	
Course Number	Course Title	Credit
	no changes	
No	impact PCC Core Outcomes which Degree and/or Cert Yes  Degree/Certificate Outcomes: ( <u>REQUIRED</u> whether or	
•	Current Degree/Certificate Outcome	
	avaScript extensions to web pages est and deploy web pages containing JavaScript	
	Current Degree/Certificate Outcome	
\$ •		
	involve changing Degree/Certificate Outcomes?	

If Yes, list proposed outcomes: Proposed Degree/Certificate Outcome Proposed outcomes for Emergency Medical Technician AAS Degree Program: Act in accordance with the ethical and professional medical standards of the entry level Paramedic Meet the academic eligibility requirements for taking both cognitive and practical State and National Certification examinations at the Paramedic level Demonstrate communication skills of the medical environment in order to develop and maintain professional client relationships at the Paramedic level Demonstrate the professional and technical skill set necessary to meet the Paramedic standard of care in a safe manner under diverse conditions For Certificates, does Revision involve changing Related Instruction? No. ☐ Yes If Yes, Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html). All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories: 1. Arts and Humanities 2. Mathematics, Natural and Physical sciences, Social Science 3. Social Science Does Revision involve changing coursework requirements?  $\boxtimes$  No If Yes, please list **ALL** current and proposed coursework: Sample **Course Number Course Title** Credit Intro to Web Graphic-Fireworks CAS 110 1 Introduction to Flash CAS 175 3 Current **Course Number Course Title** Credit

ľ	r	U	p	O;	S	e(	1

_ roposee		
Course Number	Course Title	Credit

#### **Total Number of Credits in Degree/Certificate:**

Current Credits: 107 Proposed Credits: 107

#### **Contact Information:**

Submitted by: Mark Hornshuh, Dennese Kelsay Contact e-mail: mhornshu@pcc.edu, dkelsay@pcc.edu

#### **Next Steps:**

a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.
 b. If needed, attach Related Instruction Form
 <a href="mailto:(http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) to the same email.

- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

Emergency	y Medical Technician-AAS Degree	
Course of	Study	
Term 1		
HPE 295	Health and Fitness	3
EMT 100	Introduction to Emergency Medical Services	3
WR 121	English Composition	4
General Ed	lucation elective any	4
	·	14
Term 2		
MTH 65	Introduction Algebra	4
BI 231	Human Anatomy & Physiology I	4
EMT 105	EMT Basic - Part I	5
SP	111 or Higher	3 to 4
	lucation elective - Social Science (PSY 101 or higher)	4
Term 3		
BI 232	Human Anatomy and Physiology II	4
EMT 106	EMT Basic - Part II	5
EMT 116	EMT Rescue	3
CIS 101	Or Higher	3 to 4
	or	
CAS 101	Or Higher	3 to 4
		15
Term 4		
BI 233	Human Anatomy and Physiology III	4
EMT 115	Crisis Intervention	3
EMT 113	Emergency Response Communication	2
EMT 114	Emergency Response Transportation	2
EMT 118	EMT Medical Terminology	3
	lucation elective	4
Term 5		18
EMT 240	Paramedic I	13
Sixth		
Term		
EMT 242	Paramedic II	9
EMT 244	Paramedic Clinic Internship	3
Term 7	F	12
EMT 246	Paramedic Clinical Internship II	4
EMT 248	Paramedic Field Internship I	2
Term 8	·	6
EMT 250	Paramedic Field Internship II	7
EMT 252	Paramedic III	2
		9
	Total	107

# Associate of Applied Science/Certificate Revision Request Form

Current Degree/Certificate Title: EET: Renewable Energy Systems AAS Option Proposed Degree/Certificate Title:

#### **Reason for Revision:**

1. Align outcomes format with the format required by PCC.

2.Renewable Energy AAS: Old Credit Total: 106

Addition of EET 101 = 1cr Addition of MTH 111B as an "or"

New Credit Total: 107

Request Implementation Term: fall 2009

#### **List Current Degree/Certificate Prerequisites:**

Sample

Course Number	Course Title	
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title	Credit
	Completion of WR 121 and Placement in MTH 95	

<ul><li>No</li><li>If Yes, please li</li></ul>	involve changing Degree/Certificate Prerequisites?  Yes  st proposed prerequisites:	
Proposed		
Course Number	Course Title	Credit
	Completion of WR 121 and Placement in MTH 95	
		•

**Does Revision impact PCC Core Outcomes which Degree and/or Certificates support?**  $\boxtimes$  No  $\square$  Yes

If Yes, explain:

# List Current Degree/Certificate Outcomes: (<u>REQUIRED</u> whether or not Outcomes are changing)

Sample

	Current Degree/Certificate Outcome
•	Develop JavaScript extensions to web pages
•	Upload, test and deploy web pages containing JavaScript

## **Current Degree/Certificate Outcome**

• This new option, being an EET option will align with the EET outcomes but in the specific field. Therefore:

Upon completion of the Renewable Energy option, graduates will have a good understanding of the basic principles of design/manufacturing/operation of renewable energy engineering technology and apply those principles to a wide variety of renewable systems.

Does Revision involve changing Degree/Certificate Outcomes?

No Yes

If Yes, list proposed outcomes:

Proposed Degree/Certificate Outcome

Qualify for employment in the renewable energy field as technicians

- Install, service, repair renewable energy systems, and perform technician work in the manufacturing area of renewable systems by applying knowledge of electrical, electronics, mechanical, control systems and hydraulics/pneumatics concepts.
- Apply knowledge of electrical, electronics, mechanical, control systems and hydraulics/pneumatics concepts when assisting engineers with the design of renewable systems.
- Communicate effectively both at the individual level and within team settings.
- Understand the impact of renewable energy within the context of sustainability and apply sustainability concepts to their practice
- Apply ethical and professional practice within the field of renewable energy
- Achieve success in continuing their education towards completion of a four-year degree in engineering technology or engineering.

For (	Certificates	, does Re	evision involve	changing R	elated Inst	ruction?
$\boxtimes$ No	o [	Yes				
If Yes	s, Fill out T	emplate f	for Related Instr	ruction		
(http://	//www.pcc	edu/resou	arces/academic/	eac/degree/f	forms.html)	•

All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories:

- 1. Arts and Humanities
- 2. Mathematics, Natural and Physical sciences, Social Science
- 3. Social Science

<b>Does Revision</b>	involve changing	course work	requirements?
☐ No	⊠ Yes		_

If Yes, please list **ALL** current and proposed coursework:

Sample

Course Number	Course Title			
CAS 110	Intro to Web Graphic-Fireworks	1		
CAS 175	Introduction to Flash	3		

## Current

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3

MTH111C	College Algebra	5
CS 133U	Introduction to C	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5
EET 188	Industrial Safety	1
	Gen Ed: Social Science	4
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 110	Introduction to Sustainability/Renewable Energy	3
EET 178	PC Architecture for Tech	4
PHY 201	General Physics	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
PHY 202	General Physics	4
CMET 213	Fluid Mechanics	3 5
EET 222	Op-Amp Circuits	5
EET 254	Seminar	1
EET 255	Industrial Control Systems	4
	Gen Ed: Arts and Letters	4
ELT 125	Basic PLC	2
ELT 126	Intermediate PLC	2
ELT 225	Advanced PLC	2
	RES Electives	3
EET 223	RF Communication	5
EET 256/ 280A	Capstone Project/CE: Electronic Engineering Tech	2
EET 242	Microcontroller Systems	4
	Approved RES Electives:	
	MT 101/102/104; EET 271-Wind Power; RET 122 Wind	
	Mechanical Systems; other RE classes under development	
	at PCC	

# **Proposed**

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 101	Intro to Electronic Testing Equipment/Soldering/Tools	1
EET 121	Digital Systems I	3
MTH111C	College Algebra	5
CS 133U/CS	Introduction to C/Computer Science I	4
161		
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5
EET 188	Industrial Safety	1
	Gen Ed: Social Science	4
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 110	Introduction to Renewable Energy	3
EET 178	PC Architecture for Tech	4
PHY 201	General Physics	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
PHY 202	General Physics	4
CMET 213	Fluid Mechanics	3
EET 222	Op-Amp Circuits	5
EET 254	Seminar	1

EET 255	Industrial Control Systems	4
	Gen Ed: Arts and Letters	4
ELT 125	Basic PLC	2
ELT 126	Intermediate PLC	2
ELT 225	Advanced PLC	2
	RES Electives	3
EET 223	RF Communication	5
EET 256/ 280A EET 242	Capstone Project/CE: Electronic Engineering Tech Microcontroller Systems	2 4
	Approved RES Electives: MT 101/102/104; EET 269-Wind Power; RET 122 Wind Mechanical Systems; other RE classes under development at PCC	

# **Total Number of Credits in Degree/Certificate:**

Current Credits: 106 Proposed Credits: 107

#### **Contact Information:**

Submitted by: sanda williams

Contact e-mail: sanda.williams@pcc.edu

# **Next Steps:**

- 1. a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.
  - b. If needed, attach Related Instruction Form (http://www.pcc.edu/resources/academic/eac/degree/forms.html) to the same email.
- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

EET: Renewable Energy Systems Current			EET: Rene	wable Energy Systems Proposed	
EET 111	Electric Circuit Analysis I	5	EET 101	Intro to Electronic Testing/Equip	1
EET 121	Digital Systems I	3	EET 111	Electric Circuit Analysis I	5
MTH111C	College Algebra *	5	EET 121	Digital Systems I	3
CS 133U	Introduction to C	4	MTH 111B	College Algebra * or	5
EET 112	Electric Circuit Analysis II	5	MTH111C	College Algebra *	
EET 122	Digital Systems II	3	CS 133U	Introduction to C	4
MTH 112	Elementary Functions*	5	EET 112	Electric Circuit Analysis II	5
EET 188	Industrial Safety	1	EET 122	Digital Systems II	3
	Gen Ed: Social Science	4	MTH 112	Elementary Functions*	5
EET 113	Electrical Power	5	EET 188	Industrial Safety	1
EET 123	Digital Systems III	5		Gen Ed: Social Science	4
EET 110	Intro to Sustainability/Renewable Energy	3	EET 113	Electrical Power	5
EET 178	PC Architecture for Tech	4	EET 123	Digital Systems III	5
PHY 201	General Physics*	4	EET 110	Intro to Sustainability/Renewable Energy	3
EET 221	Semiconductor Devices	5	EET 178	PC Architecture for Tech	4
EET 241	Microcomputer Systems	4	PHY 201	General Physics*	4
PHY 202	General Physics *	4	EET 221	Semiconductor Devices	5
CMET 213	Fluid Mechanics	3	EET 241	Microcomputer Systems	4
EET 222	Op-Amp Circuits	5	PHY 202	General Physics *	4
EET 254	Seminar	1	CMET 213	Fluid Mechanics	3
EET 255	Industrial Control Systems	4	EET 222	Op-Amp Circuits	5
	General Educations Arts and Letters	4	EET 254	Seminar	1
ELT 125	Basic PLC	2	EET 255	Industrial Control Systems	4
ELT 126	Intermediate PLC	2		General Educations Arts and Letters	4
ELT 225	Advanced PLC	2	ELT 125	Basic PLC	2
	RES Electives	3	ELT 126	Intermediate PLC	2

EET 223	RF Communication	5	ELT 225	Advanced PLC	2
EET 256/ 280A	Capstone Project/CE: EET	2		RES Electives	3
EET 242	Microcontroller Systems	4	EET 223	RF Communication	5
	Total	106	EET 256/ 280A	Capstone Project/CE: EET	2
			EET 242	Microcontroller Systems	4
				Total	107

<sup>\*</sup>Could be used as Gen Ed

# Associate of Applied Science/Certificate Revision Request Form

Current Degree/Certificate Title: Electronic Engineering Technology AAS Proposed Degree/Certificate Title:

#### **Reason for Revision:**

1. Aligning outcomes format with the format required by PCC.

2.EET AAS: Old Credit Total: 103

Addition of EET 101 = 1cr Addition of MTH 111B as an "or"

New Credit Total: 104

Request Implementation Term: fall 2009

### **List Current Degree/Certificate Prerequisites:**

Sample

Course Number Course Title		Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title	
	Placement in MTH 95 and WR 115	

<b>Does Revision</b>	involve changing Degree/Certificate Prerequisites?
No No	Yes

If Yes, please list proposed prerequisites:

#### **Proposed**

Course Number	Course Title	
	Placement in MTH 95 and WR 115	

**Does Revision impact PCC Core Outcomes which Degree and/or Certificates support?**No Yes

If Yes, explain:

# List Current Degree/Certificate Outcomes: (<u>REQUIRED</u> whether or not Outcomes are changing)

Sample

	Current Degree/Certificate Outcome
•	Develop JavaScript extensions to web pages
•	Upload, test and deploy web pages containing JavaScript

	Current Degree/Certificate Outcome	
Upon s	satisfactory completion of the EET Program the student should be able to:	
1.	Read and understand electronic circuit schematic diagrams and identify	

electronic components and have a basic knowledge of their operating characteristics.

- 2. Use basic electronic instruments such as the digital multi-meter, oscilloscope, function generator, and spectrum analyzer to measure and analyze the performance of electronic circuits.
- 3. Use computer applications such as word processors, spreadsheets, circuit simulators, and data acquisition.
- 4. Use a scientific calculator to solve electronic circuit problems.
- 5. Apply basic electronic theory, math, and physics to measure and analyze the performance of electronic circuits. Be able to find and solve problems in electronic circuits.
- 6. Communicate effectively and work individually and as a team member.
- 7. Continue training on the job, at an educational institution, or engage in self-learning.
- 8. Obtain employment in the electronics industry.
- 9. Transfer to a 4-year BSEET program at schools such as the OIT.

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Does	Revision	involve	changing	Degree/C	ertificate (	Outcomes?
		<u> </u>				

No	X Yes
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If Yes, list proposed outcomes:

#### **Proposed Degree/Certificate Outcome**

- Qualify for employment in the electrical/electronics field
- Install, service and repair electrical and electronics systems, perform technician work in the manufacturing area by applying knowledge of electrical, electronics, control systems, and programming concepts.
- Assist engineers with the design of electrical/electronics systems by applying knowledge of electrical, electronics, control systems, and programming concepts.
- Communicate effectively both at the individual level and within team settings.
- Apply ethical and professional practice within the field of electrical/electronics
- Achieve success in continuing their education towards completion of a four-year degree in engineering technology or engineering.

# For Certificates, does Revision involve changing Related Instruction?

No Yes

If Yes, Fill out Template for Related Instruction

(http://www.pcc.edu/resources/academic/eac/degree/forms.html).

All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories:

- 1. Arts and Humanities
- 2. Mathematics, Natural and Physical sciences, Social Science
- 3. Social Science

# <u>Does Revision involve changing coursework requirements?</u>

No	⊠ Yes

If Yes, please list **ALL** current and proposed coursework:

Sample

Course Number	Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

# Current

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
EET 113	Electric Circuit Analysis III	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U	Intro to C	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
MTH 243	Statistics	4
PHY 201	General Physics	4
·	Gen Ed-Social Science	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4
PHY 201	General Physics	4
EET 254	Seminar	1
EET 223	Gen Ed: Arts and Letters RF Communications Circuits	4 5
EET 255		4
EET 256	Industrial Control Systems Project Lab	2
PHY 203	General Physics	4
1111 200	Scheral Frysics	7

**Proposed** 

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS	Intro to C/Computer Science I	4

161		
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
MTH 243	Statistics	4
PHY 201	General Physics	4
	Gen Ed-Social Science	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4
PHY 201	General Physics	4
EET 254	Seminar	1
	Gen Ed: Arts and Letters	4
EET 223	RF Communications Circuits	5
EET 255	Industrial Control Systems	4
EET 256/EET	Project Lab/CE: Electronic Engineering Tech	2
280A		
PHY 203	General Physics	4
EET 101	Intro to Electronic Testing Equipment/Soldering/Tools	1
	Addition of MTH 111B as an "or"	
	New Credit Total: 104	

## **Total Number of Credits in Degree/Certificate:**

Current Credits: 103 Proposed Credits: 104

#### **Contact Information:**

Submitted by: sanda williams

Contact e-mail: sanda.williams@pcc.edu

### **Next Steps:**

- a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.
   b. If needed, attach Related Instruction Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) to the same email.
- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

ELECTRON	IC ENGINEERING AAS DEGREE Current		ELECTRON	IC ENGINEERING AAS DEGREE Proposed	
First Term			First Term		
EET 111	Electrical Circuit Analysis I	5	EET 111	Electrical Circuit Analysis I	5
EET 121	Digital Systems I	3	EET 121	Digital Systems I	3
MTH 111C	College Algebra for Math, Science and Engineering	5	MTH 111B	College Algebra * Or	5
WR 121	English Composition	4	MTH 111C	College Algebra*	
	Total	17	WR 121	English Composition	4
Second Te	rm			Tota	17
EET 112	Electrical Circuit Analysis II	5	Second Te	rm	
EET 122	Digital Systems II	3	EET 112	Electrical Circuit Analysis II	5
EET 188	Industrial Safety	1	EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5	EET 188	Industrial Safety	1
Gen Ed Soc	cial Science Electives	4	MTH 112	Elementary Functions *	5
	Total	18	Gen Ed Soc	cial Science Electives	4
Third Term	1		EET 101	Intro to Electonic Testing Equip (ADD)	1
EET 113	Electrical Circuit Analysis III	5		Tota	19
EET 123	Digital Systems III	5	Third Term	1	
EET 178	PC Architecture for Technicians	4	EET 113	Electrical Circuit Analysis III	5
CS 133U	Introduction to C	4	EET 123	Digital Systems III	5
	Total	18	EET 178	PC Architecture for Technicians	4
Fourth Ter	m		CS 133U	Introduction to C	4
EET 221	Semiconductor Devices & Circuits	5		Tota	18
EET 241	Microcomputer Systems	4	Fourth Ter	m	
MTH 243	Statistics I	4	EET 221	Semiconductor Devices & Circuits	5
PHY 201	General Physics	4	EET 241	Microcomputer Systems	4
	Total	17	MTH 243	Statistics I	4
Fifth Term			PHY 201	General Physics*	4
EET 222	Operational Amplifier Circuits	5		Tota	17
EET 242	Microcontroller Systems	4	Fifth Term		
PHY 202	General Physics	4	EET 222	Operational Amplifier Circuits	5
Gen Ed Ar	ts and Letters Electives	4	EET 242	Microcontroller Systems	4
	Total	17	PHY 202	General Physics*	4
Sixth Term	1		Gen Ed Ar	ts and Letters Electives	4

EET 223	RF Communications Circuits	5			Total	17
EET 254	EET Seminar I	1	Sixth Term	1		
EET 255	Industrial Control Systems	4	EET 223	RF Communications Circuits		5
EET 256	Project Lab	2	EET 254	EET Seminar I		1
PHY 203	General Physics	4	EET 255	Industrial Control Systems		4
	Total	16	EET 256	Project Lab		2
		103	PHY 203	General Physics*		4
						16
					Total	104

<sup>\*</sup> Could be used as Gen Ed

# Associate of Applied Science/Certificate Revision Request Form

Current Degree/Certificate Title: EET Biomedical Engineering Technology AAS Option Proposed Degree/Certificate Title:

#### **Reason for Revision:**

- 1. Aligning outcomes with the required PCC outcomes format.
- 2. Biomedical AAS: Old Credit Total: 108

Addition of EET 101 = 1cr Deletion of Gen Ed = 2cr

Addition of MTH 111B as an "or"

New Credit Total: 107

Request Implementation Term: fall 2009

## **List Current Degree/Certificate Prerequisites:**

#### Sample

Course Number	Course Number Course Title	
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title		
	MP 111 and either (BI 122/122) or BI 231/232/233)		

Does	Revision	involve	changing	Degree/0	Certificate	Prerequi	sites?
□ 3.7		<b>T T</b> 7		_		_	

	$\square$ 168	
--	---------------	--

If Yes, please list proposed prerequisites:

### **Proposed**

Course Number	Course Title	Credit
	MP 111 and either (BI 122/122) or BI 231/232/233); and	
	WR 121 and placement in MTH 95	

# **Does Revision impact PCC Core Outcomes which Degree and/or Certificates support?**

No ☐ Yes

If Yes, explain:

# List Current Degree/Certificate Outcomes: (<u>REQUIRED</u> whether or not Outcomes are changing)

#### Sample

	Current Degree/Certificate Outcome				
•	Develop JavaScript extensions to web pages				
•	Upload, test and deploy web pages containing JavaScript				

	Current Degree/Certificate Outcome
•	Upon successful completion of BMET option students can work as entry

level biomedical equipment technicians and they should be able to: Adapt, operate and maintain medical and radiologic equipment Perform safety inspection Troubleshoot and make repairs when necessary Supervise, evaluate, calibrate and maintain biomedical equipment Students can also work in laboratories and with medical equipment manufacturing/repair companies Does Revision involve changing Degree/Certificate Outcomes? No X Yes If Yes, list proposed outcomes: **Proposed Degree/Certificate Outcome** •Qualify for employment in the medical equipment field as technicians. •Install, service and repair medical equipment systems, and perform technician work in the manufacturing of medical equipment systems by applying knowledge of electrical, electronics, control systems, networking, biomedical equipment concepts. Apply knowledge of electrical, electronics, control systems, networking, biomedical equipment concepts working with engineers on the design of medical equipment systems. •Qualify to train health care professionals on the use of medical equipment •Communicate effectively both at the individual level and within team settings. •Apply ethical and professional practice within the field of medical equipment •Achieve success in continuing their education towards completion of a four-year degree in engineering technology or engineering. For Certificates, does Revision involve changing Related Instruction?  $\times$  No If Yes, Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html).

All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories:

- 1. Arts and Humanities
- 2. Mathematics, Natural and Physical sciences, Social Science
- 3. Social Science

# <u>Does Revision involve changing coursework requirements?</u>

□ No ⊠ Yes

If Yes, please list **ALL** current and proposed coursework:

#### Sample

Course Number	Number Course Title	
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3

MTH 111C	College Algebra	5
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
	Gen Ed–Arts and Letters	4
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS		
161	Intro to C/ Computer Science I	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
CIS 179	Data Communications Concepts	4
	Gen Ed-Social Science	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4
EET 260	Biomedical Equipment I	4
EET 254	Seminar	1
EET 261	Biomedical Equipment II	4
EET 223	RF Communications Circuits	5
EET 255	Industrial Control Systems	4
EET 280B	CE: BMET Practicum	11

**Proposed** 

Proposed		
Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5
WR 121	English Composition	4
EET 101	Intro to Electronic Testing Equipment/Soldering/Tools	1
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
	Gen Ed–Arts and Letters	4
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS		
161	Intro to C/ Computer Science I	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
CIS 179	Data Communications Concepts	4
	Gen Ed-Social Science	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontrollers/Robotics Systems	4
EET 260	Biomedical Equipment I	4
EET 254	Seminar	1
EET 261	Biomedical Equipment II	4
EET 223	RF Communications Circuits	5
EET 270	Motors/Generators and Control Systems	3
EET 280B	CE: BMET Practicum	4-11

Deletion of Gen Ed = 2cr Addition of MTH 111B as an "or" New Credit Total: 107

# **Total Number of Credits in Degree/Certificate:**

Current Credits: 108 Proposed Credits: 107

### **Contact Information:**

Submitted by: sanda williams

Contact e-mail: sanda.williams@pcc.edu

#### **Next Steps:**

1. a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.

b. If needed, attach Related Instruction Form

(<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) to the same email.

- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

Biomed Cu	rriculum: Current	
First Term		
EET 111	Electric Circuit Analysis I	5
EET 1121	Digital Systems I	3
MTH 111C	College Algebra	5
WR 121	Writing Composition	4
		17
Second Ter	·m	
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5
EET 188	Industrial Safety	1
CIS 179	Data Comm Concepts I	4
		18
<b>Third Term</b>		
EET 113	Electric Circuit Analysis III	5
EET 123	Digital Systems III	5
CS 133U	Introduction to C 1	4
EET 178	PC Architecture for Techs	4
		18
Fourth Ter	m	
EET 221	Semiconductor Devices & Circuits	5
EET 241	Microcomputer Systems	4
EET 260	Biomedical Equipment I	4
	Social Science Electives	4
		17
Fifth Term		
EET 222	OP-Amp Circuits	5
EET 242	Microcontroller Systems	4
EET 261	Biomedical Equipment II	4
EET 280C	CE: BMET Practicum	4 TO 11
		17 TO 24
Sixth Term		
EET 223	RF Communications Circuits	5

<b>Biomed Curri</b>	culum: Proposed		
First Term			
EET 111	Electric Circuit An	nalysis I	5
EET 1121	Digital Systems I		3
WR 121	Writing Composit	ion	4
<b>General Educ</b>	ation (Decrease)		3
EET 101	Intro to Electonic	Testing Equip (ADD)	1
Second Term			16
EET 112	Electric Circuit An	nalysis II	5
EET 122	Digital Systems II		3
EET 188	Industrial Safety		1
CS 133U	Introduction to C	1	4
MTH 111B	College Algebra*	or	5
MTH 111C	College Algebra*		18
Third Term			
EET 113	Electric Circuit An	nalysis III	5
EET 123	Digital Systems III		5
EET 178	PC Architecture for	or Techs	4
MTH 112	Elementary Func	tions*	5
			19
Fourth Term			
EET 221	Semiconductor D	evices & Circuits	5
EET 241	Microcomputer S	ystems	4
EET 260	Biomedical Equip	ment I	4
CIS 179	Data Comm Conc	epts I	4
			17
Fifth Term			
EET 222	OP-Amp Circuits		5
EET 242	Microcontroller S	ystems	4
EET 261	Biomedical Equip	ment II	4
EET 280C	CE: BMET Practice	um	6
EET 254	Seminar I		1
Sixth Term			20
EET 223	RF Communication	ons Circuits	5

EET 255	Industrial Control Systems	4
EET 254	Seminar I	1
EET 280C	CE: BMET Practicum	4 TO 11
		14 TO 21
		108

EET 255	Industrial Control	Industrial Control Systems	
EET 280C	CE: BMET Practic	um	5
<b>General Educ</b>	cation (Decrease)		3
			17
		Total	107

<sup>\*</sup> Can be used as General Education

# Associate of Applied Science/Certificate Revision Request Form

Current Degree/Certificate Title: EET:Wireless and Data Communication Engineering Technology

**AAS Option** 

**Proposed Degree/Certificate Title:** 

#### **Reason for Revision:**

- 11. Aligning outcomes with the required PCC outcomes format.
- 2. Wireless AAS: Old Credit Total: 103

Addition of EET 101 = 1cr Deletion of Gen Ed = 2cr Addition of MTH 111B as an "or"

New Credit Total: 102

Request Implementation Term: fall 2009

### **List Current Degree/Certificate Prerequisites:**

Sample

Course Number	Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title	Credit
	Placement in MTH 95 and WR 115.	

Do	es Revision	involve	changing Degree/Certificate Prerequisite	s?
	No	X Yes	•	

If Yes, please list proposed prerequisites:

#### **Proposed**

Course Number	Course Title	Credit
	Placement in MTH 95 and completion of WR 121	

**Does Revision impact PCC Core Outcomes which Degree and/or Certificates support?**No Yes

If Yes, explain:

# List Current Degree/Certificate Outcomes: (<u>REQUIRED</u> whether or not Outcomes are changing)

#### Sample

	Current Degree/Certificate Outcome
•	Develop JavaScript extensions to web pages
•	Upload, test and deploy web pages containing JavaScript

# Current Degree/Certificate Outcome

Upon completion of this EET option graduates should be able to work in the wireless and data communication industry (ex. radio frequency, cellular, fiberoptics, satellite, commercial broadcast, data networking, and others). They install, repair and maintain a large variety of communication equipment. Does Revision involve changing Degree/Certificate Outcomes? No If Yes, list proposed outcomes: **Proposed Degree/Certificate Outcome** Qualify for employment in the wireless and data communications field as technicians. Install, service and repair wireless and data communications systems, and perform technician work in the manufacturing area of wireless and data communications systems by applying knowledge of electrical, electronics, wireless and data communications concepts. Assist engineers in the design of wireless and data communications systems by applying knowledge of electrical, electronics, wireless and data communications concepts. Communicate effectively both at the individual level and within team settings. Apply ethical and professional practice within the field of wireless and data communications Achieve success in continuing their education towards completion of a four-year degree in engineering technology or engineering. For Certificates, does Revision involve changing Related Instruction? No No ☐ Yes If Yes, Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html). All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories: 1. Arts and Humanities 2. Mathematics, Natural and Physical sciences, Social Science 3. Social Science Does Revision involve changing coursework requirements? No X Yes

# If Yes, please list **ALL** current and proposed coursework:

Sample

- Sumpre		
<b>Course Number</b>	Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5

WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
	Gen Ed-Arts and Letters	4
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS		
161	Intro to C/Computer Sciencel	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
MTH 243	Statistics	4
	Gen Ed-Social Science	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontrollers/Robotics Systems	4
CIS 188	Wireless	4
EET 254	Seminar	1
CIS 179	Data Communication I	4
EET 223	RF Communications Circuits	5
EET 256/EET	Project Lab/ CE: Electronic Engineering Tech	2
280A		_
CIS 189	Wireless Security	4
CIS 278	Data Communication II	4

Proposed

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5
EET 101	Intro to Electronic Testing Equipment/Soldering/Tools	1
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
	Gen Ed–Arts and Letters	4
EET 113	Electrical Power	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS		
161	Intro to C/Computer Science I	4
EET 221	Semiconductor Devices	5
EET 241	Microcomputer Systems	4
MTH 243	Statistics	4
FFT 000	Gen Ed-Social Science	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4
CIS 188	Wireless	4
EET 254	Seminar	1
CIS 179	Data Communication I	4
EET 223	RF Communications Circuits	5
EET 256/EET 280A	Project Lab/ CE: Electronic Engineering Tech	2
CIS 189	Wireless Security	4

CIS 278	Data Communication II	4	
	Deletion of Gen Ed = 2cr		l
	Addition of MTH 111B as an "or"		
	New Credit Total: 102		l
			l

## **Total Number of Credits in Degree/Certificate:**

Current Credits: 103 Proposed Credits: 102

#### **Contact Information:**

Submitted by: sanda williams

Contact e-mail: sanda.williams@pcc.edu

## **Next Steps:**

1. a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to curriculum@pcc.edu.

b. If needed, attach Related Instruction Form (http://www.pcc.edu/resources/academic/eac/degree/forms.html) to the same email.

- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

Wireless and Data Communications Eng Tech AAS Current		
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Math*	5
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions*	5
Arts and Le	etters Electives	4
EET 113	Electric Circuit Analysis III	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U	Introduction to C 1	4
EET 221	Semiconductor Devices And Circuits	5
EET 241	Microcomputer Systems	4
MTH 243	Statistics 2	4
Social Scier	nce Electives	4
EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4
CIS 188	Introduction to Wireless Network	4
EET 254	Seminar	1
CIS 179	Data Comm Concepts I	4
EET 223	RF Communications Circuits	5
EET 256	Project Lab	2
CIS 189	Wireless Security	4
CIS 278	Data Comm Concepts II	4
	Total	103

<sup>\*</sup> Could be used as General Education

Wireless and Data Communications Eng Tech AAS Proposed		
EET 101	Intro to Electonic Testing Equip (ADD)	1
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111B	College Math* OR	5
MTH 111C	College Math*	
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions*	5
Gen Ed Arts	and Letters Electives(Decrease)	3
EET 113	Electric Circuit Analysis III	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U	Introduction to C 1	4
EET 221	Semiconductor Devices And Circuits	5
EET 241	Microcomputer Systems	4
MTH 243	Statistics 2	4
Gen Ed Soc	ial Scienc&lectives (Decrease)	3
EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4
CIS 188	Introduction to Wireless Network	4
EET 254	Seminar	1
CIS 179	Data Comm Concepts I	4
EET 223	RF Communications Circuits	5
EET 256	Project Lab	2
CIS 189	Wireless Security	4
CIS 278	Data Comm Concepts II	4
	Total	102

<sup>\*</sup> Could be used as General Education

# Associate of Applied Science/Certificate Revision Request Form

	e/Certificate Title: Electronic Engineering Technology Certee/Certificate Title:	ificate
Reason for Rev Include EET 101	vision: and aligning outcomes format with the format required by PCC	i.
Request Imple	mentation Term: fall 2009	
List Current D Sample	egree/Certificate Prerequisites:	
Course Number	Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3
Current		
Course Number	Course Title	Credit
	Placement in MTH 95 and WR 115	
⊠ No	involve changing Degree/Certificate Prerequisites?  Yes  st proposed prerequisites:	
Course Number	Course Title	Credit
	Placement in MTH 95 and WR 115	
No If Yes, explain:	impact PCC Core Outcomes which Degree and/or Cert Yes  Degree/Certificate Outcomes: (REQUIRED whether or	
• Daveler l	Current Degree/Certificate Outcome	
	avaScript extensions to web pages est and deploy web pages containing JavaScript	

# **Current Degree/Certificate Outcome**

Upon satisfactory completion of the EET Program the student should be able to:

- 1. Read and understand electronic circuit schematic diagrams and identify electronic components and have a basic knowledge of their operating characteristics.
- 2. Use basic electronic instruments such as the digital multi-meter, oscilloscope, function generator, and spectrum analyzer to measure and analyze the performance of

electronic circuits.	
3. Use computer applications such as word processors, spreadsheets, circuit simulators, and data acquisition.	
4. Use a scientific calculator to solve electronic circuit problems.	
5. Apply basic electronic theory, math, and physics to measure and analyze the performance of electronic circuits. Be able to find and solve problems in electronic circuits.	
6. Communicate effectively and work individually and as a team member.	
7. Continue training on the job, at an educational institution, or engage in self-learning.	
8. Obtain employment in the electronics industry.	
9. Transfer to a 4-year BSEET program at schools such as the OIT.	
Does Revision involve changing Degree/Certificate Outcomes?  ☐ No ☐ Yes	
If Yes, list proposed outcomes:	_
Proposed Degree/Certificate Outcome	
<ul> <li>Qualify for employment in the electrical/electronics field as entry level operators</li> <li>Assist technicians with installation/repair/servicing/manufacturing of the electrical and electronics by applying basic knowledge of electrical, electronics, and programming concepts</li> </ul>	
<ul> <li>Communicate effectively both at the individual level and within team settings.</li> <li>Apply ethical and professional practice within the field of electrical/electronics</li> <li>Achieve success in continuing their education towards completion of an AAS degree in engineering technology</li> </ul>	
For Certificates, does Revision involve changing Related Instruction?  No Yes If Yes, Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html).  All candidates for the Associate of Applied Science degree must complete 16 cred	its of General
Education, 8 of which can be specified by the department issuing the degree. The include at least 1 course, with no more than 8 credits from the following three cate	16 credits must
<ol> <li>Arts and Humanities</li> <li>Mathematics, Natural and Physical sciences, Social Science</li> <li>Social Science</li> </ol>	
Does Revision involve changing coursework requirements?  ☐ No ☐ Yes	
If Yes, please list <b>ALL</b> current and proposed coursework:  Sample	

Course Number	Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### **Current**

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
	Gen Ed–Arts and Humanities	4
EET 113	Electric Circuit Analysis III	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS	Intro to C/ Computer Scienece I	4
161	,	

## **Proposed**

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 101	Intro to Electronic Testing Equipment/Soldering/Tools	1
EET 121	Digital Systems I	3
MTH 111C	College Algebra	5
WR 121	English Composition	4
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5
	Gen Ed–Arts and Letters	4
EET 113	Electric Circuit Analysis III	5
EET 123	Digital Systems III	5
EET 178	PC Architecture for Tech	4
CS 133U/CS	Intro to C/ Computer Science I	4
161	·	

# **Total Number of Credits in Degree/Certificate:**

Current Credits: 53 Proposed Credits: 54

## **Contact Information:**

Submitted by: sanda williams

Contact e-mail: sanda.williams@pcc.edu

## **Next Steps:**

1. a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.

b. If needed, attach Related Instruction Form

(http://www.pcc.edu/resources/academic/eac/degree/forms.html) to the same email.

- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

EET Certific	cate: Current		EET Certificate: Proposed		
First Term			First Term		
EET 111	Electrical Circuit Analysis I	5	EET 111	Electrical Circuit Analysis I	5
EET 121	Digital Systems I	3	EET 121	Digital Systems I	3
MTH 111C		5	MTH 111C	College Algebra	5
WR 121	English Composition	4	WR 121	English Composition	4
Second Ter	m		Second Teri	m	17
EET 112	Electrical Circuit Analysis II	5	EET 112	Electrical Circuit Analysis II	5
EET 122	Digital Systems II	3	EET 122	Digital Systems II	3
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
Social Scier	nce Electives	4	General Education Social Science Electives		4
Third Term			Third Term		18
EET 113	Electrical Circuit Analysis III	5	EET 113	Electrical Circuit Analysis III	5
EET 123	Digital Systems III	5	EET 123	Digital Systems III	5
EET 178	PC Architecture for Technicians	4	EET 178	PC Architecture for Technicians	4
CS 133U	Introduction to C 1	4	CS 133U	Introduction to C 1	4
1 CS 161 m	1 CS 161 may be substituted (required by OIT)		EET 101	Intro to Electonic Testing Equip (ADD)	1
					19
	Total	53		Total	54

# Associate of Applied Science/Certificate Revision Request Form

<b>Current Degree/Certificate Title:</b>	Renewable Energy Systems Certificate
<b>Proposed Degree/Certificate Title:</b>	

#### **Reason for Revision:**

To include EET 101 and align outcomes with the format required by PCC.

Request Implementation Term: fall 2009

## **List Current Degree/Certificate Prerequisites:**

#### Sample

Course Number	oer Course Title	
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	umber Course Title	
	Completion of WR 121 and Placement in MTH 95	

<b>Does Revision</b>	involve	changing Degree/Certificate Prerequisites?
⊠ No	Yes	_

If Yes, please list proposed prerequisites:

## **Proposed**

Course Number	ourse Number Course Title	
	Completion of WR 121 and Placement in MTH 95.	

Does Revision i	mpact PCC Core Outcomes which Degree and/or Certificates support?
⊠ No [	Yes
If Yes, explain:	

# List Current Degree/Certificate Outcomes: (<u>REQUIRED</u> whether or not Outcomes are changing)

## Sample

#### Current Degree/Certificate Outcome

- Develop JavaScript extensions to web pages
- Upload, test and deploy web pages containing JavaScript

#### **Current Degree/Certificate Outcome**

- This new option, being an EET option will align with the EET outcomes but in the specific field. Therefore:
- Upon completion of the Renewable Energy option, graduates will have a good understanding of the basic principles of design/manufacturing/operation of renewable energy engineering technology and apply those principles to a wide variety of renewable systems.

# Does Revision involve changing Degree/Certificate Outcomes? No If Yes, list proposed outcomes: **Proposed Degree/Certificate Outcome** Qualify for employment in the renewable energy field as entry level operators Assist technicians with installation, repair, servicing, and manufacturing of renewable systems by applying basic knowledge of electrical, electronics, mechanical, and hydraulics/pneumatics concepts. Communicate effectively both at the individual level and within team settings. Understand the impact of renewable energy within the context of sustainability and apply sustainability concepts to their practice Apply ethical and professional practice within the field of renewable energy Achieve success in continuing their education towards completion of an AAS degree in engineering technology For Certificates, does Revision involve changing Related Instruction? $\bowtie$ No | | Yes If Yes, Fill out Template for Related Instruction (http://www.pcc.edu/resources/academic/eac/degree/forms.html). All candidates for the Associate of Applied Science degree must complete 16 credits of General Education, 8 of which can be specified by the department issuing the degree. The 16 credits must include at least 1 course, with no more than 8 credits from the following three categories: 1. Arts and Humanities 2. Mathematics, Natural and Physical sciences, Social Science 3. Social Science Does Revision involve changing coursework requirements? No If Yes, please list **ALL** current and proposed coursework: Sample

Course Number	Course Title	Credit
CAS 110	Intro to Web Graphic-Fireworks	1
CAS 175	Introduction to Flash	3

#### Current

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3
MTH111C	College Algebra	5
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5
EET 188	Industrial Safety	1
	Gen Ed: Social Science	4
EET 113	Electrical Power	5

EET 110	Introduction to Sustainability/Renewable Energy	3
	RES Electives	3
	Certificate Prereqs: WR 121 and placement in MTH 95	

#### **Proposed**

Course Number	Course Title	Credit
EET 111	Electric Circuit Analysis I	5
EET 101	Intro to Electronic Testing Equipment/Soldering/Tools	1
EET 121	Digital Systems I	3
MTH111C	College Algebra	5
EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5
EET 188	Industrial Safety	1
	Gen Ed: Social Science	4
EET 113	Electrical Power	5
EET 110	Introduction to Renewable Energy	3
	RES Electives	3
	Certificate Prereqs: WR 121 and placement in MTH 95	

# **Total Number of Credits in Degree/Certificate:**

Current Credits: 42 Proposed Credits: 43

#### **Contact Information:**

Submitted by: sanda williams

Contact e-mail: sanda.williams@pcc.edu

#### **Next Steps:**

- 1. a. Save completed Associate of Applied Science/Certificate Revision Request Form and Submit as an email attachment to <a href="mailto:curriculum@pcc.edu">curriculum@pcc.edu</a>.
  - b. If needed, attach Related Instruction Form (http://www.pcc.edu/resources/academic/eac/degree/forms.html) to the same email.
- 2. Download and print Associate of Applied Science/Certificate Revision Signature Page Form (<a href="http://www.pcc.edu/resources/academic/eac/degree/forms.html">http://www.pcc.edu/resources/academic/eac/degree/forms.html</a>) and get the appropriate signatures.
- 3. Staple signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of Associate of Applied Science/Certificate Revision Request Form (electronic version has already been sent in Step 1). Send both forms to Curriculum Office, Rock Creek Campus, Building 5, Room 114 via campus mail.

Renewable Energy Certificate Current			Renewable Energy Certificate Proposed		
EET 111	Electric Circuit Analysis I	5	EET 111	Electric Circuit Analysis I	5
EET 121	Digital Systems I	3	EET 121	Digital Systems I	3
MTH111C	College Algebra	5	MTH111C	College Algebra	5
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	3	EET 122	Digital Systems II	3
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
EET 113	Electrical Power	5	EET 113	Electrical Power	5
EET 110	Introduction to Sustainability/Renewable Energy	3	EET 110	Introduction to Sustainability/Renewable Energy	3
	RES Electives	3		RES Electives	3
	General Education: Social Science	4		General Education: Social Science	4
	Total	42	EET 101	Intro to Electonic Testing Equip (ADD)	1
				Total	43

Proposed changes to align the Catalog with the Academic Standards and Practices Handbook Submitted by Interim Dean of Instructional Support to the Degrees and Certificates Committee April 2009

#### 1. For the description of the AAS degree:

The Academic Standards and Practices Handbook, includes the statement shown below in blue, which should be included in the catalog description of the AAS degree, with the small change as noted for clarity.

**A.** The final 16 credits that apply to the degree must include at least eight credits at PCC that apply to the specific program requirements, excluding courses used solely for the General Education requirements. Students may apply to the department chair for waiver of this requirement if they can demonstrate currency in the field.

All candidates must earn 24 credits from PCC that apply to the specific program AAS degree requirements excluding courses used solely for the General Education requirements. See specific program requirements in the PCC Catalog.

#### **B.** General Education Requirements: ....

Rationale: It seems as though the paragraph was deleted because it is similar to one of the statements of comprehensive degree requirements, but its specific exclusion of General Education s important.

#### 2. For the AGS Degree

Recommend deletion shown below in both the Academic Handbook and the catalog

- **C. Elective Credit Requirements**: All students must complete elective credits to meet the overall requirements of 90 credits for this degree.
  - Maximum of six credits (100-level and above) of physical education (PE) may apply.
  - Maximum of six credits of one-credit MSD workshops may apply
  - Maximum of 24 credits of professional skills classes may apply
  - MTH 30 or higher may be used as elective credit

Rationale: the CCWD Oregon Community Colleges Handbook & Planning Guide is very explicit about course needing to be collegiate level. The degree does have a MTH 65 competency.

# ASSOCIATE OF GENERAL STUDIES (AGS)

"'Associate of General Studies' is defined as a state approved associate degree that is designed to prepare students to transfer to upper division courses for a baccalaureate degree." 589-006-(7)

#### Guidelines

The Associate of General Studies (AGS) degree is intended to meet individual student needs using a variety of collegiate level courses to meet degree requirements. "Associate of General Studies" appears on the student's transcript. Specific program designation or focus does not appear on the student's transcript of degree. Academic or career and technical education courses used to satisfy AGS degree requirements must be collegiate level.

# General requirements

Local community colleges are responsible for clearly defining the requirements for the AGS degree. At a minimum, the AGS degree must include

- 90-108 quarter credits or equivalent proficiency,
- · Recognizable core of general education courses, and
- Established standards of academic achievement (e.g., grade point average).

#### **Electives**

- Any combination of lower division collegiate (LDC) transfer and/or
- Collegiate level career and technical education courses.

#### **Notes & Clarifications**

AGS degree is not to be advertised or communicated to students as occupational preparation. AGS degree is not to be used instead of a state approved occupational preparatory Associate of Applied Science degree or certificate of completion program.

## Approval process

All colleges are pre-approved to offer this degree.