### Degrees and Certificates Agenda October 12, 2011 CLIMB Room 305

Old Business: Review June and September Minutes New Business: 2:00pm - Discussion:

**EAC Chair Report** 

AGS Sub-100 Level Courses

Handbook: A-104/A-106

**Course Repeatability** 

**RI/AAS** 

**Discipline Studies Gen Ed List** 

2:30pm – Graphic Design AAS Revision: Cece Cutsforth: Removal and addition of a course.

**2:45pm – Medical Assisting Certificate Revision: Jin Kim:** Removal of a course, credit decrease, prerequisite change, remove related instruction.

**3:00pm – Medical Laboratory Technology AAS Revision: Ana Sacramento:** Reduce Gen Ed, credit decrease, prerequisite change, chemistry and biology options added, outcomes.

3:15pm – Electronic Engineering Technology AAS Revision: Mike Farrell: Outcomes.

Electronics Engineering Technology Certificate Revision: Mike Farrell: Outcomes.

EET Renewable Energy Systems AAS Revision: Mike Farrell: Outcomes.

EET Renewable Energy Systems Certificate Revision: Mike Farrell: Outcomes.

EET Mechatronics AAS Revision: Mike Farrell: Outcomes.

EET Biomedical Engineering Technology AAS Revision: Mike Farrell: Outcomes.

**EET Wireless and Data Communications AAS Revision: Mike Farrell:** Outcomes.

**3:30pm - MT Solar Voltaic Manufacturing Technology AAS Revision: Shelton Fu:** Adding a course, credit increase, outcomes.

**MT Solar Voltaic Manufacturing Technology Certificate Revision: Shelton Fu:** Adding a course, credit increase, outcomes.

**Microelectronics Technology AAS Revision: Shelton Fu:** Adding MT 131, credit increase, outcomes.

**MT Automated Manufacturing Technology AAS Revision: Shelton Fu:** Adding a course, removing courses, credit decrease, outcomes.

**Consent Agenda:** 

Micro Electronics Technology – Request to OPEN program

Academic Standards and Practices

# Associate Degree Requirements – Associate of General Studies Degree (AGS)

The Associate of General Studies degree is designed for students wishing to acquire a broad education, rather than pursuing a specific college major or career/technical program. Because of the flexibility of this degree, it may not fulfill the requirements for transfer to a four-year institution.

The Associate of General Studies degree is awarded to students who meet the following requirements:

- 1. Associate Degree Comprehensive Degree Requirements
- 2. Associate of General Studies Requirements:
  - A. General Education Requirements:

Students must earn a minimum of 16 credits of General Education taken from the General Education/Discipline Studies List. These credits must come from courses taken in the following categories:

- Arts and Letters
- Social Sciences
- Mathematics, Natural and Physical Sciences, and Computer Studies

The 16 credits must include at least one course with a minimum of 3 credits from each category. General Education requirements for the AGS degree will be waived for students who enroll at PCC with an A.A., A.A.S., A.G.S., A.S., B.A., B.S. degree or higher from an accredited United States institution.

B. Basic Competency Requirements in Writing and Math for AGS Degree:

Writing: Competency in writing must be demonstrated by either:

- Completing WR 121 with a grade of C or better, or
- Passing a lower division collegiate\* writing course for which WR121 is a prerequisite with a letter grade of C or better or
- Passing the PCC WR 121 Challenge Exam. Students must meet criteria to sit for the exam.

\*See "Course Descriptions" in PCC Catalog for a complete list.

Students with A.A., A.A.S., A.G.S., A.S., B.A., B.S., degrees or higher from a U.S. regionally accredited institution will have the basic competency in writing (WR 121) waived. Other writing requirements specified by the program remain in effect.

Math: Competency in mathematics must be demonstrated by either:

- Completing MTH 65 or MTH 63 with a grade of C or better, or
- Passing the PCC competency exam for MTH 65, or
- Passing a mathematics course (minimum of 3 credits) for which MTH 65 or higher is a prerequisite with a grade of C or better.

#### **C. Elective Credit Requirements**:

All students must complete elective credits to meet the overall requirements of 90 credits for this degree. Elective credits may apply from MTH 30 or higher, any course numbered 100 or higher (either lower division collegiate or career technical courses). Elective credit limitations are:

- 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 (PST) may apply

Approved:October 2009Revision:September 2011

### Academic Standards and Practices

## **Associate Degrees -- Comprehensive Requirements**

Students earning an associate degree from Portland Community College must successfully complete the Associate Degree Comprehensive Requirements listed below along with additional requirements for specific associate degrees. In addition, each degree requires Basic Competencies in Writing and Math. Competency requirements vary by associate degree. Please check the competency requirements for specific associate degrees.

#### **Comprehensive Degree Requirements:**

- 1. All candidates must earn a minimum of 90 credits which count towards an associate degree. Credit courses, numbered 100 or less, cannot be used to fulfill the 90 credit minimum requirement for the AAOT, AS, ASOT-BUS, <u>AGS</u> and AAS Degrees
- 2. Residency Requirement:
  - All candidates for a degree at Portland Community College must accumulate at least 30 quarter hours of satisfactory work at PCC to establish residency.
  - Twenty-four of the credits earned at PCC must apply to the specific associate degree requirements the student is pursuing.
  - Non-traditional credit, credit transferred from another institution or challenge credit cannot be used to establish the 30 quarter hour residency requirement and the student petition process may not be used to waive the residency requirement.
- 3. All candidates for a degree must have a 2.0 grade point average (C average) or higher.
  - A maximum of 12 credits of Cooperative Education courses may be applied to the degree.
  - A maximum of nine credits of 199 or 299 Experimental courses may be applied to the degree.
  - A maximum of 24 credits of English for Speakers of other Languages (ESOL) courses may be applied to the degree.
  - A maximum of 12 credits of SP 270 may be applied to associate degrees.
  - A maximum of 24 credits of "P" (Pass) grades will apply to any degree. Specific AAS degrees that deviate from this maximum will state the degree maximum in the degree requirements for the specific AAS degree.

Approved: January 2010

Revision : September 2011



# ASSOCIATE OF APPLIED SCIENCE DEGREE

**REVISION REQUEST FORM** 

Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed

> to: Curriculum Office DC / 4<sup>th</sup> floor

#### **SECTION #1 OVERVIEW Graphic Design** No Change **Current Title: Proposed Title:** 97 97 **Current Credits:** Proposed **Credits:** Graphic Design students are currently required to take both ART 131 and ART 231, both drawing courses. These courses are so similar that they are taught simultaneously in the same sections, in the same room, at the same time. Graphic Design students are not getting enough difference in the two courses and we feel our students would benefit more by taking ART 270 Printmaking in place of ART 231. Students would gain a richer understanding of the printing Overview and rationale processes they will encounter in their future graphic design careers, while still utilizing and building on their drawing for proposed changes: skills. The information and skills covered in printmaking would have a stronger alignment with graphic design "out there" skills than just a drawing course, because students would participate in the process of ink transferring onto paper. This prepares students better for understanding printing processes used in the industry. 1. Remove ART 231 to degree requirements List of specific changes 2. Add ART 270 to degree requirements being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc). SECTION # 2 PREREQUISITES AND OUTCOMES All degree/certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed. **Current Prerequisites** Does the revision involve changing degree prerequisites? $\square$ Yes

Course Number	Course Title or Placement level	
Proposed Prerequisites		
Course Number	Course Title or Placement level	
	Describe what we intend students to be able to do "out there" (in life roles: worker,	
Current Outcomes: Required whether or not outcomes are being changed.	family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on <u>writing good outcome</u> statements.	Does the revision involve changing degree outcomes? □Yes ⊠No
Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	itcomes may not be address by the AAS
Degree Outcome		Core Outcome
Students who complete this de	egree should be able to:	
1. Apply concept theory clients' communicatio	and design in the development of printed materials that successfully respond to on needs	<ul> <li>Communication</li> <li>Critical thinking</li> <li>Cultural Awareness</li> <li>Professional Competence</li> </ul>
2. Demonstrate technico	al skills required to produce professional-level communication materials.	Professional Competence Critical Thinking
3. Demonstrate professi transfer to a 4-year sc	onal graphic design standards and methods to qualify for entry-level employme hool.	ent or Critical thinking Professional Competence Self-Reflection
<b>Revised Outcomes:</b> Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	
Degree Outcome		Core Outcome
Students who complete this de	egree should be able to:	
NO CHANGE		

### **SECTION # 3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such.

If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

	CURRENT DEGREE INFORMATION			PROPOSED DEGREE INFORMATION	
COURSE NUMBER	COURSE TITLE	CRED ITS	COURSE NUMBER	COURSE TITLE	CREDITS
TERM 1					
WR121	English Composition	4	WR121	English Composition	4
	General Education Electives - Math/Sciences	4		General Education Electives - Math/Sciences	4
GD120	Graphic Design I	3	GD120	Graphic Design I	3
GD114	Introductory Typography	3	GD114	Introductory Typography	3
ART131	Introduction to Drawing	3	ART131	Introduction to Drawing	3
GD101	Mac for Graphic Designers	1	GD101	Mac for Graphic Designers	1
TERM 2			TERM 2		
GD150	Digital Illustration 1	3	GD150	Digital Illustration 1	3
GD116	Intermediate Typography	3	GD116	Intermediate Typography	3
GD122	Graphic Design 2	3	GD122	Graphic Design 2	3
GD140	Digital Page Design 1	3	GD140	Digital Page Design 1	3
SP111	Public Speaking	4	SP111	Public Speaking	4
TERM 3			TERM 3		
GD141	Digital Page Design 2	3	GD141	Digital Page Design 2	3
GD160	Digital Imaging I	3	GD160	Digital Imaging I	3
GD124	Graphic Design 3	3	GD124	Graphic Design 3	3
ART103	Introduction to Art	4	ART103	Introduction to Art	4
GD151	Digital Illustration 2	3	GD151	Digital Illustration 2	3
TERM 4			TERM 4		
GD244	Preparing Files for Print	3	GD244	Preparing Files for Print	3

			-				
ART231	Drawing (DELETE)		3	_	Printmaking (ADD)		3
GD260	Digital Imaging 2		3		Digital Imaging 2		3
GD221	Graphic Design 4		3	GD221	Graphic Design 4		3
GD249	Design Studio		3	GD249	Design Studio		3
	Or				Or		
	CE: Graphic Design		(3)		CE: Graphic Design		(3)
TERM 5				TERM 5			
GD242	Combined Graphic Pr	ograms	3	GD242	Combined Graphic Progra	ams	3
GD222	Graphic Design 5		3	GD222	Graphic Design 5		3
GD228	Prof. Graphic Design	Practices	3	GD228	Prof. Graphic Design Pra	ctices	3 3 3
GD239	Illus for Graphic Desig	iners	3	GD239	Illus for Graphic Designer	S	3
CAS111D	Begin WebSite: Drear	nweaver	3	CAS111D	Begin WebSite: Dreamwe	eaver	3
TERM 6				TERM 6			
	General Education Ele	ectives - Social Science	4		General Education Electiv	ves - Social	4
					Science		
MTH65	Introductory Algebra-2	2nd Term	4	MTH65	Introductory Algebra-2nd	Term	4
GD229	Portfolio Preparation		3	GD229	Portfolio Preparation		3
	Graphic Design AAS:	Graphic Design Degree	3		Graphic Design AAS: Gra	aphic Design	3
	Art Electives	Design AAS: Graphic Design Degree ves			Degree Art Electives		
BA223	Principles of Marketing	g	3	BA223	Principles of Marketing		3
	Or				Or		
BA239	Advertising		(3)	BA239	Advertising		(3)
	Cre	dit Total	97		Credit	Total	97
SECT	FION # 4 (Please	contact the Curricul	um Off	ice for sup	port in filling out this	section if nee	ded.)
ls this a	statewide degree?	□ Yes 🖂 No 🛛 Has	s the cha	nge heen ann	roved by the consortium?	☐ Yes 「	No
					the base degree:		
Is this	a degree option?	🗌 Yes 🖂 No		,,			
	<b>U</b>						
	ny career pathway(s) certificates attached to		If yoo n	amo of corcer	pathway(s) or related		
this degree		□ Yes ⊠ No	n yes, n		ficate		

ested Implementation Term	
se refer to Degree/Certificate timeline implementation guidelines)	

	Cece Cutsforth
Submitted By:	
	ccutsforth@pcc.edu
Email:	



CERTIFICATE REVISION REQUEST FORM Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u>

Signature pages should be intercampus mailed to: Curriculum Office DC 4<sup>th</sup> floor

### **SECTION #1 OVERVIEW**

Current Title:	Medical Assisting Certificate	Proposed Title:	Medical Assisting	Certificate		
Current Credits:	45	Proposed Credits:	41			
Overview and rationale for proposed changes:	found that just because the stude	Ve want to have BI 122 along with BI 121 as prerequisites instead of having just 121 completed. I have bund that just because the student has shown success in 121 doesn't mean they will be successful in 22. We want the student to be able to concentrate more on Medical Assisting courses.				
List of specific changes being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes etc.	<ol> <li>ADD completion of BI 122 to the current prerequisites for entry into the program</li> <li>Remove BI 122 from degree requirements</li> <li>Reduce number of credits required for the degree</li> <li>Remove any reference to related instruction as the certificate is now less than one-year</li> </ol>					
	SECTION #	2 REVISION AF	REAS			
	P	rerequisites				
Current Prerequisites	Does the revision involve changing certificate prerequisites? X Yes No					
Course Number	Course Title o	or Placement level				
MP 111	Medical Terminology					
BI 121	Intro to Anatomy and Physiology					
contificate revision						

certificate revision 1

WR 121	College Composition	
MTH 60	College Algebra	

### **Proposed Prerequisites**

Course Number	Course Title or Placement level	
MP 111	Medical Terminology	
BI 121	Intro to Anatomy and PhysiologyI	
BI 122	Intro to Anatomy and Physiology II	
WR 121	College Composition	
MTH 60	College Algebra	
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing certificate outcomes?

Identify which certificate outcome aligns to individual core outcomes. It is possible that all core outcomes may not be address by the certificate outcomes.

Certificate Outcome	Core Outcome
Students who complete this certificate should be able to:	
• Communicate effectively with persons through the use of verbal & non-verbal skills, written abilities,	Communications
	Critical Thinking/Problem Solving
• Think creatively and critically in the identification, analysis, and resolution of problems, issues, truth	Cultural Awareness Professional Competence
and medical assistant certification standards.	Self Reflection

Identify which certificate outcome aligns to individual core outcomes. It is possible that all core outcomes may not be address by the certificate

outcomes.		
Certificate Outcome		Core Outcome
Students who complete this certificate should be able to:		-
No Change		
Related Ins	truction	
Does the revision involve changing or adding Related Instruction?	⊡Yes	X No
If yes, a template for Related Instruction will need ( <u>http://www.pcc.edu/recources/aca</u>		e found at:
Additional Comme	nts Or Changes	

SECTION #3 COURSE BY COURSE COMPARISON			
in a term by term sequence on this form. If they identified within cat	ry on this form. If you want to rearrange the order of courses within		
Current Certificate Information	Proposed Certificate Information		

certificate revision 3

Course Number	Course Title	Credits	Course Number	Course Title	Credits
BI 122	Intro to Anatomy & Physiology (remove)	4			
MA 117	Med. Office Admin Procedures	3	MA 117	Med. Office Admin Procedures	3
MA 118	Med. Office Admin Procedures Lab	2	MA 118	Med. Office Admin Procedures Lab	2
MA 112	Seminar I	1	MA 112	Seminar I	1
MA 120	Intro to Clinical Phlebotomy	1	MA 120	Intro to Clinical Phlebotomy	1
HE 113	First Aid CPR	1	HE 113	First Aid CPR	1
PSY 101	Psych and Human Relations	4	PSY 101	Psych and Human Relations	4
MA 123	Med. Office Clinical Procedures	3	MA 123	Med. Office Clinical Procedures	3
MA 124	Med. Office Clinical Proc. Lab	2	MA 124	Med. Office Clinical Proc. Lab	2
MA 180	Coding and Reimbursement	1	MA 180	Coding and Reimbursement	1
MLT 100	Medical Office Lab Tech	3	MLT 100	Medical Office Lab Tech	3
MA 122	Seminar II	1	MA 122	Seminar II	1
MP 201	Intro to Electronic Health Records	3	MP 201	Intro to Electronic Health Records	3
MA 270	Clinical Practicum	6	MA 270	Clinical Practicum	6
MA 131	Intro to Medical Science	5	MA 131	Intro to Medical Science	5
MA 136	Medications	2	MA 136	Medications	2
MA 132	Seminar III	1	MA 132	Seminar III	1
MA 121	Medical Legal Aspects of Healthcare	2	MA 121	Medical Legal Aspects of Healthcare	2
	Credit total	45		Credit total	41

SECTION #4 (Please contact the Curriculum Office for support in filling out this section)							
Is this a Related Certificate?	🗌 Yes X No	Is this a Career Pathway?		🗌 Yes X No			
If yes, what is the base degree?			Will the proposed change affect the Career Pathway or         Related Certificate?				

certificate revision 4

If yes, how?			
Is this a statewide certificate?	If yes, has the change been approved by the consortium?		
Yes No		🗌 Yes 🗌 No	
Requested Implementation Term			
( Please refer to Degree/Certificate timeline implementation gui	idelines)		

Submitted by:	Jin Kim
Email:	Jin.kim2@pcc.edu
Phone:	971-722-5664



# ASSOCIATE OF APPLIED SCIENCE DEGREE

REVISION REQUEST FORM Si

Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed

> to: Curriculum Office DC / 4<sup>th</sup> floor

#### **SECTION #1 OVERVIEW** Medical Laboratory **Current Title: Proposed Title:** Technology 105 103 **Current Credits:** Proposed Credits: 16 general education course credits are required for an AAS. Since some science courses required by the program are 5 credits each and, two of these courses may be counted in the science category, only 6 more credits are necessary instead of 8. This reduces the minimum total credits for the program from 105 to 103 Overview and rationale credits. for proposed changes: • Prerequisites currently appear in MLT webpage but not in catalog. SAC approved changing the math requirement from MTH 65 to MTH 95 because the required chemistry series has MTH 95 as prerequisite. • Chemistry and Biology series required by the MLT program can be substituted by other higher series in the same subject areas. 1. Reduce General Education from 8 credits to 6 credits. List of specific changes 2. Reduce Credit Total from 105 to 103. being proposed (i.e. may 3. Update prerequisites. include, addition or deletion 4. Identify options for the chemistry and biology requirement. of courses, title changes, 5. Outcomes Update credit changes, prerequisite changes, outcome changes, course changes, etc). SECTION # 2 PREREQUISITES AND OUTCOMES All degree/certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed. **Current Prerequisites** No Does the revision involve changing degree prerequisites? ⊠Yes **Course Number Course Title or Placement level**

MTH 65	Completion of MTH 65 (Introductory Algebra – Second Term) with a grade C or higher or, Compass score 48 or higher	
RD 115	Completion of RD 115 with a grade C or higher or, Compass score 88 or higher	
WR 115	Completion of WR 115 with a grade C or higher or, Compass score 79 or higher	
BI 101	Completion of 100 level Biology or higher with a grade C or higher or, pass biology examination given by the MLT Department	May be waived by the MLT Department based on previous college courses
CH 100	Completion of 100 level Chemistry or higher with a grade C or higher or, pass chemistry examination given by the MLT Department	May be waived by the MLT Department based on previous college courses
	Participate in an MLT advising/orientation session with an MLT Instructor High School completion or GED	
Proposed Prerequisites		
Course Number	Course Title or Placement level	
MTH 95	Completion of MTH 95 (Intermediate Algebra) with a grade C or higher or, Compass score 56 or higher	
RD 115	Completion of RD 115 with a grade C or higher or, Compass score 88 or higher	
WR 115	Completion of WR 115 with a grade C or higher or, Compass score 79 or higher	
BI 101	Completion of 100 level Biology or higher with a grade C or higher or, pass biology examination given by the MLT Department	May be waived by the MLT Department based on previous college courses
CH 100	Completion of 100 level Chemistry or higher with a grade C or higher or, pass chemistry examination given by the MLT Department Participate in an MLT advising/orientation session with an MLT Instructor	May be waived by the MLT Department based on previous college courses
Current Outcomes: Required whether or not outcomes are being changed.	High School completion or GEDDescribe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing degree outcomes? ⊠Yes □No
	gree outcome aligns to individual core outcomes. It is possible that all core of	I
Degree Outcome		Core Outcome

-	vised Outcomes: ntify which college AAS degree outcome aligns to individual core outcomes. It is possible that all core outcomes gree outcomes.	s may not be address by the AA
	Recognize the legal responsibilities inherent in the practice of clinical laboratory sciences.	
	Participate in continuing education for technical and professional development.	
	Correlate results of laboratory procedures as being consistent or inconsistent with usual patterns which provide data used in diagnosis, prognosis, treatment and prevention of disease.	
	Recognize and identify technical, mechanical and physiological problems within the laboratory and effect resolution of problems according to the protocols of the institution.	
	Perform all procedures within professional standards of quality assurance.	
	Perform routine laboratory tasks in a professional, accurate and timely manner. Tasks may include, but are not limited to: appropriate collection, identification and processing of specimens; preparation of chemicals and reagents; use of appropriate laboratory techniques, methodologies, instruments and equipment; and accurate calculation, recording and tabulation of data.	
	Be self-directed and responsible for his/her professional actions.	
	Provide consistently high quality patient care.	
	Function effectively as a contributing member of the laboratory team.	
	Apply academic knowledge and laboratory experiences in making appropriate professional decisions.	
	Demonstrate an understanding of the basic concepts applicable to clinical laboratory procedures and an awareness of the clinical applications of laboratory medicine.	
	Appreciate and apply strict adherence to the highest level of medical ethics.	

Students who complete this degree should be able to:	Drofossional Compotence
Act professionally and adhere to ethical and legal responsibilities toward consistent quality patient care.	Professional Competence Communication Community and Environment Responsibility Critical Thinking and Problem Solving Self-Reflection
Apply knowledge of theory and principles of related content areas (eg. clinical chemistry, hematology, microbiology, immunohematology, etc.) to the clinical laboratory setting in making appropriate professional decisions.	Professional Competence Community and Environment Responsibility Critical Thinking and Problem Solving
Select, prepare, perform, correlate and evaluate appropriate laboratory procedures in a high quality, professional, accurate and timely manner.	Professional Competence Critical Thinking and Problem Solving Communication
Recognize and identify technical, mechanical and physiological problems within the laboratory and effect resolution of problems according to the protocols of the institution.	Professional Competence Community and Environment Responsibility Critical Thinking and Problem Solving
Function effectively as a contributing member of the laboratory team and the broader healthcare delivery system.	Professional Competence Communication Self-reflection

	SECTION # 3 COURSE BY COURSE COMPARISON							
	<b>CURRENT DEGREE INFORMATION</b>		PROPOSED DEGREE INFORMATION					
COURSE			COURSE					
NUMBER	COURSE TITLE	CREDITS	NUMBER	COURSE TITLE	CREDITS			
	General Education	4		General Education (reduce credit)	3			
	General Education	4		General Education (reduce credit)	3			
WR 121	English Composition	4	WR 121	English Composition <sup>1</sup>	4			
CH 104	Allied Health Chemistry I	5	CH 104	Allied Health Chemistry I <sup>2*</sup>	5			
CH 105	Allied Health Chemistry II	5	CH 105	Allied Health Chemistry II <sup>2*</sup>	5			
CH 106	Allied Health Chemistry III	5	CH 106	Allied Health Chemistry III <sup>2*</sup>	5			
BI 121	Introduction to Anatomy and Physiology I	4	BI 121	Introduction to Anatomy and Physiology I <sup>3*</sup>	4			
BI 122	Introduction to Anatomy and Physiology II	4	BI 122	Introduction to Anatomy and Physiology II <sup>3*</sup>	4			

MLT 111	Medical T	echnology I	4	MLT 111	Medical Technology I	4
MLT 112	Medical T	echnology II	4	MLT 112	Medical Technology II	4
MLT 113	Intro to M	ledical Microbiology	4	MLT 113	Intro to Medical Microbiology	4
MLT 221	Clinical C	hemistry I	3	MLT 221	Clinical Chemistry I	3
MLT 222	Clinical C	hemistry II	4	MLT 222	Clinical Chemistry II	4
MLT 223	Clinical C	hemistry III	3	MLT 223	Clinical Chemistry III	3
MLT 230	Body Flui	ds	3	MLT 230	Body Fluids	3
MLT 241	Immunoh	ematology I	3	MLT 241	Immunohematology I	3
MLT 242	Immunoh	ematology II	4	MLT 242	Immunohematology II	4
MLT 250	Hematolo	ogy	4	MLT 250	Hematology	4
MLT 261	Bacteriol	ogy I	4	MLT 261	Bacteriology I	4
MLT 262	Bacteriol	ogy II	3	MLT 262	Bacteriology II	3
MLT 263	Medical F	Parasitology	3	MLT 263	Medical Parasitology	3
MLT 264	Medical N	/lycology	3	MLT 264	Medical Mycology	3
MLT 271	Clinical L	aboratory Practice I	3	MLT 271	Clinical Laboratory Practice I	3
MLT 272	Clinical L	ical Laboratory Practice II 3 MLT 272		Clinical Laboratory Practice II	3	
MLT 273	Clinical L	aboratory Practice III	3	MLT 273	Clinical Laboratory Practice III	3
MLT 274	Clinical L	aboratory Practice IV	8	MLT 274	Clinical Laboratory Practice IV	8
MLT 281	Clinical S	eminar	4	MLT 281	Clinical Seminar	4
					<sup>1</sup> or a lower division collegiate writing course for	
					which WR 121 is a prerequisite <sup>2 (</sup> CH 221, CH 222, CH 233) may substitute for (CH	
					104, CH 105, CH 106)	
					<sup>3</sup> (BI 231, BI 232, BI 233) or (BI 211, BI 212, BI 213)	
					may substitute for (BI 121 and BI 122)	
					<sup>*</sup> Could be used as General Education	
		Credit Total	105		Credit Total	103
SEC	TION # 4	(Please contact the Cu	riculum Of	fice for su	pport in filling out this section if need	ded.)
			Has the	change been		
Is this a statewide				ved by the		
degr	ee?	☑ Yes 🗌 No		sortium?	☐ Yes ☑ No	
la thia a	dograa	☐ Yes ☑ No	· · · ·	ne of the bas	e	
Is this a optic	•	∐ Yes ☑ No	de	egree:		

Are there any career pathway(s) or			
related certificates		If yes, name of career	
attached to this degree?	🗌 Yes 🛛 No	pathway(s) or related certificate	
Requested Implementation Term:			
(Please refer to Degree	e/Certificate timeline implementati	on guidelines)	

	Ana Sacramento
Submitted By:	
	ana.sacramento@pcc.edu
Email:	

Next steps:

- 1. Save the completed Associate of Applied Science Revision Request Form and submit as an e-mail attachment to <u>dac@pcc.edu</u>.
- 2. Download and print the Associate of Applied Science Revision Signature Page Form and obtain the appropriate signatures.
- 3. Staple the signed Associate of Applied Science Signature Page Form to a hard copy of the Associate of Applied Science Revision Request Form (electronic version has already been sent in step one). Send both forms to Curriculum Office, Downtown Center, DC 4<sup>th</sup> floor via campus mail.

<b>Portland</b>
Community
College

# ASSOCIATE OF APPLIED SCIENCE DEGREE

**REVISION REQUEST FORM** 

Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed

to: Curriculum Office DC / 4<sup>th</sup> floor

### **SECTION # 1 OVERVIEW**

Current Title:	Electronic Engineering Technology AAS Degree	Proposed Title:	Electronic Enginee	ering Technolog	y AAS Degree	
Current Credits:	100	Proposed Credits:	100			
Overview and rationale for proposed changes:	To align EET degree outcomes with PC	To align EET degree outcomes with PCC assessment plans.				
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).						
All degree/certi	SECTION # 2 PRI ficate outcomes will be reviewed by t	EREQUISITES AND (		outcomes have	changed.	
Current Prerequisites	Does the revision involve changing degree prerequisites?		tes?	🗌 Yes	🖂 No	
Course Number	Course Title	or Placement level				
MTH 111	College Algebra			Placement		
WR 121	English Composition		(	Completion		

Proposed Prerequisites						
Course Number	Course Title or Placement level					
MTH 111	College Algebra	Placement				
WR 121	English Composition	Completion				
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing degree outcomes? ⊠Yes □No				
Identify which college AAS de degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core or	utcomes may not be address by the AA				
Degree Outcome		Core Outcome				
Students who complete this d						
<ul> <li>Install, service and repair manufacturing area by an concepts.</li> <li>Assist engineers with the</li> </ul>	the electrical and/or electronics field. electrical and electronics systems, and perform technician work in the oplying knowledge of electrical, electronics, control systems, and programming design of electrical and electronics systems by applying knowledge of electrical, ms, and programming concepts.					
<ul><li>Communicate effectively</li><li>Apply ethical and profess</li></ul>	both at the individual level and within team settings. sional practice within the field of electrical and electronics. nuing their education towards completion of a four-year degree in engineering					
<ul> <li>Communicate effectively</li> <li>Apply ethical and profess</li> <li>Achieve success in continued</li> </ul>	both at the individual level and within team settings. sional practice within the field of electrical and electronics. nuing their education towards completion of a four-year degree in engineering					
<ul> <li>Communicate effectively</li> <li>Apply ethical and profess</li> <li>Achieve success in continued</li> </ul>	both at the individual level and within team settings. sional practice within the field of electrical and electronics. nuing their education towards completion of a four-year degree in engineering					

Revised Outcomes: Identify which college AAS degree outcome aligns to individual core outcomes. It is possible that all core outcomes may not be address by the AA degree outcomes.					
Degree Outcome	Core Outcome				
Students who complete this degree should be able to:					
Predict and characterize analog circuit behavior by applying analog circuit analysis techniques.	Critical Thinking and Professional Competence				
Assess and create desired digital logic circuit outputs by employing digital logic methods of reduction and analysis.	Critical Thinking and Professional Competence				
Simulate, force, and measure DC and AC circuit quantities by using industry standard software and test equipment.	Critical Thinking and Professional Competence				
Communicate effectively both at the individual level and within team settings.	Communication and Professional Competence				
Carry out instructions and automate highly repetitive or monotonous tasks by utilizing programming skills.	Critical Thinking and Professional Competence				
Model and troubleshoot non-linear circuits and systems.	Critical Thinking and Professional Competence				

## SECTION # 3 COURSE BY COURSE COMPARISON

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such.

If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

CURRENT DEGREE INFORMATION		PROPOSED DEGREE INFORMATION			
COURSE			COURSE		
NUMBER	COURSE TITLE	CREDITS	NUMBER	COURSE TITLE	CREDITS
Term 1			Term 1		
EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1
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 111	College Algrebra	5	MTH 111	College Algrebra	5
Term 2			Term 2		
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	4	EET 122	Digital Systems II	4
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
	General Ed: Social Science	3		General Ed: Social Science	3
Term 3			Term 3		
EET 113	Electrical Power	5	EET 113	Electrical Power	5
EET 123	Digital Systems III	4	EET 123	Digital Systems III	4
EET 178	PC Architecture for Tech.	4	EET 178	PC Architecture for Tech.	4
CS133U	Intro to C	4	CS133U	Intro to C	4
Or	Computer Science I		Or	Computer Science I	
CS 161			CS 161		
Term 4			Term 4		
EET 221	Semiconductor Devices	5	EET 221	Semiconductor Devices	5
EET241	Microcomputer Systems	4	EET241	Microcomputer Systems	4
MTH243	Statistics I	4	MTH243	Statistics I	4
PHY 201	General Physics I	4	PHY 201	General Physics I	4
Term 5			Term 5		
EET 222	Op-Amp Circuits	5	EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4	EET 242	Microcontroller Systems	4
EET 254	Seminar	1	EET 254	Seminar	1
PHY 202	General Physics II	4	PHY 202	General Physics II	4
EET 272	Motors and Generators	3	EET 272	Motors and Generators	3
Term 6			Term 6		
EET 223	RF Communication Circuits	5	EET 223	RF Communication Circuits	5
EET 273	Electronic Control Systems	3	EET 273	Electronic Control Systems	3
EET 256	Capstone Project	2	EET 256	Capstone Project	2
Or EET	EET Internship		Or EET	EET Internship	
280A			280A		
	General Ed: Arts and Letters	3		General Ed: Arts and Letters	3
PHY 203	General Physics III	4	PHY 203	General Physics III	4
PTT 203		4			<u>4</u>

	Credit	100		Credit 100
Total			1	otal
SECTION # 4	(Please contac	t the Curriculum Off	ice for supp	ort in filling out this section if needed.)
Is this a statewide		Has the change been a	oproved by the	
degree?	🗌 Yes 🛛 No	consortiun	n?	🗌 Yes 🛛 No
Is this a degree option?	🗌 Yes 🛛 No	If yes, name of the b	ase degree:	
Are there any career pathway(s) or related certificates attached to this degree?	🖂 Yes 🗌 No	If yes, name of career related certifi		Electronic Engineering Technology Certificate
Requested Implemen (Please refer to Degree		mplementation guidelines	5)	Winter '12

	Mike Farrell
Submitted By:	
	Mike.farrell@pcc.edu
Email:	

Next steps:

- 1. Save the completed Associate of Applied Science Revision Request Form and submit as an e-mail attachment to <u>dac@pcc.edu</u>.
- 2. Download and print the Associate of Applied Science Revision Signature Page Form and obtain the appropriate signatures.
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College Revision		CERTIFICAT REVISION REQU FORM	<u>dac@pcc.edu</u>		: pus mailed to:		
SECTION #1 OVERVIE	EW						
Current Title:		Engineering y Certificate	Propose	d Title:	Electronic Engineerin	g Technology	Certificate
Current Credits:	49		Propose Credits:		49		
Overview and rationale for proposed changes:		tificate outcomes with PCC	- 4550551101	a pians.			
prerequisite changes, outcome changes, course	1. Rewro 2.	te all certificate outc	omes				
being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes,							
being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course		SECTION #	2 REVIS		REAS		
being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, butcome changes, course		SECTION #			REAS		
being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes etc.	2.	SECTION #	2 REVIS	ites		☐ Yes	No
being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, putcome changes, course changes etc.	2.	SECTION # P evision involve changi	2 REVIS Prerequising certific	ites ate prere		☐ Yes	No
being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course	2.	SECTION # P evision involve changi Course Title c	2 REVIS Prerequising certific	ites ate prere	quisites?	Yes acement	No

Proposed Prerequisites		
Course Number	Course Title or Placement level	
MTH 111	College Algebra	Placement
WR 121	English Composition	Completion
Current Outcomes: Required whether or not outcomes are being changed. Identify which certificate outco outcomes.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on <u>writing good outcome</u> statements.	Does the revision involve changing certificate outcomes? Yes No hay not be address by the certificate
Certificate Outcome		Core Outcome
Students who complete this c	ertificate should be able to:	
<ul> <li>Assist technicians with electronics by applying b</li> <li>Communicate effective</li> <li>Apply ethical and profestion</li> </ul>	in the electrical and/or electronics field as entry level operators. Installation, repair and servicing and manufacturing of the electrical and pasic knowledge of electrical, electronics, and programming concepts. Iy both at the individual level and within team settings. ssional practice within the field of electrical and electronic engineering technology tinuing their education towards completion of an AAS degree in engineering	<i>.</i>

#### **Revised Outcomes:**

Identify which certificate outcome aligns to individual core outcomes. It is possible that all core outcomes may not be address by the certificate outcomes.

Certificate Outcome		Core Outcome
Students who complete this certificate should be able to:		•
Predict and characterize analog circuit behavior by applying analog	circuit analysis techniques.	Critical Thinking and
	Professional Competence	
Assess and create desired digital logic circuit outputs by employing	Critical Thinking and	
analysis.	Professional Competence	
Simulate, force, and measure DC and AC circuit quantities by using	Critical Thinking and	
equipment.		Professional Competence
Communicate effectively both at the individual level and within team	settings.	Communication and
		Professional Competence
Related Inst	ruction	
Does the revision involve changing or adding Related		
Instruction?	Yes	No
If yes, a template for Related Instruction will need	to be filled out. The template can be	e found at:
(http://www.pcc.edu/recources/aca	ademic/eac/degree/forms.html	
Additional Commer	nts Or Changes	

### **SECTION #3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such. If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

Current Certificate Information			Pro	oposed Certificate Information	
Course Number	Course Title	Credits	Course Number	Course Title	Credits
Term 1			Term 1		
EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1
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 111	College Algrebra	5	MTH 111	College Algrebra	5
Term 2			Term 2		
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	4	EET 122	Digital Systems II	4
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
	General Ed: Social Science	3		General Ed: Social Science	3
Term 3			Term 3		
EET 113	Electrical Power	5	EET 113	Electrical Power	5
EET 123	Digital Systems III	4	EET 123	Digital Systems III	4
EET 178	PC Architecture for Tech.	4	EET 178	PC Architecture for Tech.	4
CS133U	Intro to C	4	CS133U	Intro to C	4
Or CS 161	Computer Science I		Or CS 161	Computer Science I	
	Credit total	49		Credit total	49

certificate revision 4

SECTION #4 (Please contact the Curriculum Office for support in filling out this section)					
Is this a Related Certificate?	🖂 Yes 🗌 No	Is th	is a Career	· Pathway?	🗌 Yes 🔀 No
If yes, what is the base degree?	Electronic Engineering Techno			Will the proposed change affect the Career Pathwa	
If yes, how?					
Is this a statewide certificate?			lf ye	es, has the c	hange been approved by the consortium?
	d Implementation Term cate timeline implementa	tion gui	delines)	Winter '12	

Submitted by:	Mike Farrell
Email:	Mike.farrell@pcc.edu
Phone:	971-722-4674

Next steps:

- 1. Save the completed Certificate Revision Request Form and submit as an e-mail attachment to dac@pcc.edu
- 2. If needed, attach the Related Instruction Form to the same e-mail.
- 3. Download and print the Associate of Applied Science/Certificate Revision Signature Page Form and obtain the appropriate signatures.
- 4. Staple the signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of the Certificate Revision Request Form (electronic version has already been sent in step one). Send both forms to Curriculum Office, Downtown Center DC 4<sup>th</sup> floor via campus mail.

Ô	Portland Community College
	College

# ASSOCIATE OF APPLIED SCIENCE DEGREE

**REVISION REQUEST FORM** 

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> to: Curriculum Office DC / 4<sup>th</sup> floor

### **SECTION # 1 OVERVIEW**

Current Title:	Renewable Energy Systems AAS Degree	Proposed Title:	Renewable Energ	ly Systems AAS ∣	Degree
Current Credits:	107	Proposed Credits:	107		
Overview and rationale for proposed changes:	To align EET degree outcomes with PC	CC assessment plans.			
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).	<ol> <li>Rewrote all degree outcomes</li> <li>2.</li> </ol>				
SECTION # 2 PREREQUISITES AND OUTCOMES All degree/certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed.					
Current Prerequisites	Does the revision involve chang	ging degree prerequis	tes?	🗌 Yes	🖂 No

Course Number	Course Title or Placement level	
MTH 111	College Algebra	Placement
WR 121	English Composition	Completion

Course Number	Course Title or Placement level			
WTH 111	College Algebra	Placement		
WR 121	English Composition	Completion		
Current Outcomes: Required whether or not outcomes are being	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The	C	ree outcom	es?
changed.	committee will review the outcomes. For guidance on writing good outcome statements.			No
Identify which college AAS de degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	itcomes may no	ot be addres	s by the AA
Degree Outcome		Core C	Dutcome	
Students who complete this c				
Install, service and repair	n the renewable energy field as technicians. r renewable energy systems, and perform technician work in the manufacturing of ns by applying knowledge of electrical, electronics, mechanical, control systems, cs concepts. trical, electronics, mechanical, control systems, hydraulics/pneumatics concepts			

Revised Outcomes: Identify which college AAS degree outcome aligns to individual core outcomes. It is possible that all core outcome	s may not be address by the AA
degree outcomes.	
Degree Outcome	Core Outcome
Students who complete this degree should be able to:	
Predict and characterize analog circuit behavior by applying analog circuit analysis techniques.	Critical Thinking and Professional Competence
Assess and create desired digital logic circuit outputs by employing digital logic methods of reduction and analysis.	Critical Thinking and Professional Competence
Simulate, force, and measure DC and AC circuit quantities by using industry standard software and test equipment.	Critical Thinking and Professional Competence
Communicate effectively both at the individual level and within team settings.	Communication and Professional Competence
Carry out instructions and automate highly repetitive or monotonous tasks by utilizing programming skills.	Critical Thinking and Professional Competence
Model and troubleshoot non-linear circuits and systems.	Critical Thinking and Professional Competence
Troubleshoot and debug alternative power generation systems by utilizing interdisciplinary skills.	Community, Critical Thinking, and Professional Competence

### **SECTION # 3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such.

If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

CURRENT DEGREE INFORMATION			PROPOSED DEGREE INFORMATIO	N	
COURSE			COURSE		
NUMBER	COURSE TITLE	CREDITS	NUMBER	COURSE TITLE	CREDITS
Term 1			Term 1		

EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1
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 111	College Algrebra	5	MTH 111	College Algrebra	5
EET 110	Intro to Renewable Energy	3	EET 110	Intro to Renewable Energy	3
Term 2			Term 2		
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	4	EET 122	Digital Systems II	4
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
PHY 201	General Physics I	4	PHY 201	General Physics I	4
Term 3			Term 3		
EET 113	Electrical Power	5	EET 113	Electrical Power	5
EET 123	Digital Systems III	4	EET 123	Digital Systems III	4
EET 178	PC Architecture for Tech.	4	EET 178	PC Architecture for Tech.	4
CS133U	Intro to C	4	CS133U	Intro to C	4
Or	Computer Science I		Or	Computer Science I	
CS 161			CS 161		
Summer					
PHY 202	General Physics II	4	PHY 202	General Physics II	4
Term 4			Term 4		
EET 221	Semiconductor Devices	5	EET 221	Semiconductor Devices	5
EET241	Microcomputer Systems	4	EET241	Microcomputer Systems	4
CMET	Fluid Mechanics	3	CMET	Fluid Mechanics	3
213			213		
ELT 125	Basic PLC	2	ELT 125	Basic PLC	2
	General Ed: Social Science	3		General Ed: Social Science	3
Term 5			Term 5		
EET 222	Op-Amp Circuits	5	EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4	EET 242	Microcontroller Systems	4
EET 254	Seminar	1	EET 254	Seminar	1
EET 272	Motors and Generators	3	EET 272	Motors and Generators	3
ELT 126	Intermediate PLC	2	ELT 126	Intermediate PLC	2
	General Ed: Arts and Letters	3		General Ed: Arts and Letters	3

Term 6				Term 6		
EET 223	RF Comr	nunication Circuits	5	EET 223	RF Communication Circuits	5
EET 273	Electronic	c Control Systems	3	EET 273	Electronic Control Systems	3
EET 256			2	EET 256	Capstone Project	2
Or EET	EET Inter	nship		Or EET	EET Internship	
280A		-		280A		
ELT225	Advanced	d PLC	2	ELT 225	Advanced PLC	2
	RES Elec	tives	3		RES Electives	3
		Credit	107		Credit	107
	Total				Total	
		<b>/—</b> •				
SEC	<b>ΓΙΟΝ # 4</b>	(Please contac	t the Curriculum Of	fice for sup	oport in filling out this section i	f needed.)
Is this a s	tatewide					
aegr			Has the change been a			
	ee?	🗌 Yes 🛛 No	consortiu	n?	🗌 Yes 🛛 No	halogy
le thie a			_	n?		chnology
Is this a	degree	□ Yes     No □ Yes     No	consortiu	n?	🗌 Yes 🛛 No	chnology
Is this a optic	degree		consortiu	n?	🗌 Yes 🛛 No	chnology
optic Are there a	degree on? iny career		consortiu	n?	🗌 Yes 🛛 No	chnology
optic Are there a pathway(s)	degree on? iny career or		consortiu	n?	🗌 Yes 🛛 No	chnology
optic Are there a pathway(s) related cert	degree on? ny career or tificates		consortiun If yes, name of the b	n? base degree:	Yes No     Electronic Engineering Tec	
Are there a pathway(s) related cert attached to	degree on? ny career or tificates	🛛 Yes 🗌 No	consortiun If yes, name of the b If yes, name of career	n? base degree:	Yes No     Electronic Engineering Tec	
Are there a pathway(s) related cert attached to degree?	degree on? ny career or tificates o this	⊠ Yes □ No	consortiun If yes, name of the b	n? base degree:	Yes No     Electronic Engineering Tec	
Are there a pathway(s) related cert attached to degree? Requested	degree on? ny career or tificates o this Implement	⊠ Yes ☐ No ⊠ Yes ☐ No ation Term	consortiun If yes, name of the b If yes, name of career	n? base degree: pathway(s) c icate	Yes No     Electronic Engineering Tec	

	Mike Farrell
Submitted By:	
	Mike.farrell@pcc.edu
Email:	

- 1. Save the completed Associate of Applied Science Revision Request Form and submit as an e-mail attachment to <u>dac@pcc.edu</u>.
- 2. Download and print the Associate of Applied Science Revision Signature Page Form and obtain the appropriate signatures.
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	-				Directions. 5		
Portland Community College		CERTIFICATE REVISION REQUEST FORM Sig		Sign	Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> nature pages should be intercampus mailed to: Curriculum Office DC 4 <sup>th</sup> floor		
<b>SECTION #1 OVERVIE</b>	W						
Current Title:	Renewable Energy Systems Certificate		Proposed Title: Renewable Energy		Renewable Energy	Systems Certific	ate
Current Credits:	42		Proposed Credits:	ł	42		
Overview and rationale for proposed changes:	To align certificate outcomes with PCC assessment plan						
List of specific changes being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes etc.	<ol> <li>Rewrote all certificate outcomes</li> <li>2.</li> </ol>						
	SECTION #2 REVISION AREAS						
		Р	rerequisit	es			I I I I I I I I I I I I I I I I I I I
Current Prerequisites	Does the re	evision involve changi	ng certifica	ate preree	quisites?	🗌 Yes	🖂 No

1

Placement Completion

**Course Title or Placement level** 

College Algebra English Composition

Course Number MTH 111 WR 121

Proposed Prerequisites			
Course Number	Course Title or Placement level		
MTH 111	College Algebra	Placem	
WR 121	English Composition	Comple	tion
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	-	es the revision involve ing certificate outcomes? ⊠Yes □No
Identify which certificate outco outcomes. Certificate Outcome	ome aligns to individual core outcomes. It is possible that all core outcomes m		e address by the certificate
Students who complete this c	ertificate should be able to:		

Revised Outcomes: Identify which certificate outcome aligns to individual core outcomes. It is p outcomes.	possible that all core outcomes may not	be address by the certificate
Certificate Outcome		Core Outcome
Students who complete this certificate should be able to:		1
Predict and characterize analog circuit behavior by applying analog	circuit analysis techniques.	Critical Thinking and Professional Competence
Assess and create desired digital logic circuit outputs by employing analysis.	digital logic methods of reduction and	Critical Thinking and Professional Competence
Simulate, force, and measure DC and AC circuit quantities by using equipment.	Critical Thinking and Professional Competence	
Communicate effectively both at the individual level and within team	Communication and Professional Competence	
Troubleshoot and debug alternative power generation systems by utilizing interdisciplinary skills.		Community, Critical Thinking, Professional Competence
Related Inst	truction	
Does the revision involve changing or adding Related Instruction?		⊠No
If yes, a template for Related Instruction will need ( <u>http://www.pcc.edu/recources/aca</u>	to be filled out. The template can be ademic/eac/degree/forms.html	e found at:
Additional Commer	nts Or Changes	

# **SECTION #3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such. If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

C	urrent Certificate Information	Pro	posed Certificate Information		
Course Number	Course Title	Credits	Course Number	Course Title	Credits
Term 1			Term 1		
EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1
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 111	College Algrebra	5	MTH 111	College Algrebra	5
EET 110	Intro to Renewable Energy	3	EET 110	Intro to Renewable Energy	3
Term 2			Term 2	_	
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	4	EET 122	Digital Systems II	4
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
ELT 125	Basic PLC	2	ELT 125	Basic PLC	2
Term 3			Term 3		
EET 113	Electrical Power	5	EET 113	Electrical Power	5
	RES Electives	3	RES Electives	3	
		40			40
	Credit total	42		Credit total	42

certificate revision 4

SECTION #4 (Please contact the Curriculum Office for support in filling out this section)						
Is this a Related Certificate?	🖂 Yes 🗌 No	Is this a Ca	reer Pathway?	🗌 Yes 🖂 No		
If yes, what is the base degree?	Renewable Energy Sys	tems	Will the propo Related Certif	esed change affect the Career Pathway or icate?		
If yes, how?						
Is this a statewide certificate	?		If yes, has the c	hange been approved by the consortium?		
🗌 Yes 🖂 No				🗌 Yes 🖂 No		
Requested Implementation Term ( Please refer to <u>Degree/Certificate timeline</u> implementation gu			Winter '12			

Submitted by:	Mike Farrell
Email:	Mike.farrell@pcc.edu
Phone:	971-722-4674

- 1. Save the completed Certificate Revision Request Form and submit as an e-mail attachment to dac@pcc.edu
- 2. If needed, attach the Related Instruction Form to the same e-mail.
- 3. Download and print the Associate of Applied Science/Certificate Revision Signature Page Form and obtain the appropriate signatures.
- 4. Staple the signed Associate of Applied Science/Certificate Revision Signature Page Form to a hard copy of the Certificate Revision Request Form (electronic version has already been sent in step one). Send both forms to Curriculum Office, Downtown Center DC 4<sup>th</sup> floor via campus mail.

Portland Commu College	Community College		OF APPLIED DEGREE EQUEST FORM	ret Signature page Curric	turn electroni dac@pcc.o	edu intercampus mailed
SECTION # 1 OVERVIEW						
Current Title:	Mechatronics/Robotics/Automati on Engineering Technology AAS Degree		Proposed Title:		echatronics/Robotics/Automation Engineering chnology AAS Degree	
Current Credits:	108		Proposed Credits:	108		
Overview and rationale for proposed changes:	To align FFT degree outcomes with PCC assessment plans					
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).						
SECTION # 2 PREREQUISITES AND OUTCOMES All degree/certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed.						
Current Prerequisites	Does the re	evision involve changing degree prerequisites?			🗌 Yes	⊠ No
Course Number		Course Title	or Placement level			
MTH 111	College Alge				Placement	
WR 121	0	English Composition			Completion	
CS161	Computer Science I				Completion	

Course Number	Course Title or Placement level	
MTH 111	College Algebra	Placement
WR 121	English Composition	Completion
CS161	Computer Science I	Completion
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changin degree outcomes? ⊠Yes □No
Identify which college AAS de degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core outcomes are aligned as a set of the set of	utcomes may not be address by the AA
Degree Outcome		Core Outcome
Students who complete this d	egree should be able to:	
	egree should be able to: e design of automated manufacturing systems.	
Assist engineers with the		
<ul> <li>Assist engineers with the</li> <li>Work as process or equip</li> </ul>	e design of automated manufacturing systems.	
<ul><li>Assist engineers with the</li><li>Work as process or equip</li></ul>	e design of automated manufacturing systems.	
<ul><li>Assist engineers with the</li><li>Work as process or equip</li></ul>	e design of automated manufacturing systems.	
<ul> <li>Assist engineers with the</li> <li>Work as process or equip</li> </ul>	e design of automated manufacturing systems.	
<ul> <li>Assist engineers with the</li> <li>Work as process or equip</li> </ul>	e design of automated manufacturing systems.	
<ul> <li>Assist engineers with the</li> <li>Work as process or equip</li> </ul>	e design of automated manufacturing systems.	
<ul><li>Assist engineers with the</li><li>Work as process or equip</li></ul>	e design of automated manufacturing systems.	
Work as process or equip     Operate, maintain, troul     Revised Outcomes: Identify which college AAS de	e design of automated manufacturing systems.	utcomes may not be address by the AA
<ul> <li>Assist engineers with the</li> <li>Work as process or equip</li> <li>Operate, maintain, trout</li> </ul>	e design of automated manufacturing systems. oment technicians in the manufacturing area of automated systems. bleshoot, and repair automated systems.	utcomes may not be address by the AA
<ul> <li>Assist engineers with the</li> <li>Work as process or equip</li> <li>Operate, maintain, troul</li> </ul> Revised Outcomes: Identify which college AAS de degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core outcomes.	

	Professional Competence
Assess and create desired digital logic circuit outputs by employing digital logic methods of reduction and	Critical Thinking and
analysis.	Professional Competence
Simulate, force, and measure DC and AC circuit quantities by using industry standard software and test	Critical Thinking and
equipment.	Professional Competence
Communicate effectively both at the individual level and within team settings.	Communication and
	Professional Competence
Carry out instructions and automate highly repetitive or monotonous tasks by utilizing programming skills.	Critical Thinking and
	Professional Competence
Model and troubleshoot non-linear circuits and systems.	Critical Thinking and
	Professional Competence
Construct interfaces to electronically control mechanical systems.	Critical Thinking and
	Professional Competence

# **SECTION # 3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such.

If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

CURRENT DEGREE INFORMATION			PROPOSED DEGREE INFORMATION		
COURSE			COURSE		
NUMBER	COURSE TITLE	CREDITS	NUMBER	COURSE TITLE	CREDITS
Term 1			Term 1		
EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1
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 111	College Algrebra	5	MTH 111	College Algrebra	5
PHY 201	General Physics I	4	PHY 201	General Physics I	4
Term 2			Term 2		
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	4	EET 122	Digital Systems II	4
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1

	Credit Total	108		Credit Total	108
		400			400
	Technical Electives	3		Technical Electives	3
ELT 225	Advanced PLC	2	ELT 225	Advanced PLC	2
280A			280A		
Or EET	EET Internship		Or EET	EET Internship	
EET 256	Capstone Project	2	EET 256	Capstone Project	2
EET 273	Electronic Control Systems	3	EET 273	Electronic Control Systems	3
EET 223	RF Communication Circuits	5	EET 223	RF Communication Circuits	5
Term 6			Term 6		
	General Ed: Arts and Letters	3		General Ed: Arts and Letters	3
ELT 126	Intermediate PLC	2	ELT 126	Intermediate PLC	2
EET 272	Motors and Generators	3	EET 272	Motors and Generators	3
EET 254	Seminar	1	EET 254	Seminar	1
EET 242	Microcontroller Systems	4	EET 242	Microcontroller Systems	4
EET 222	Op-Amp Circuits	5	EET 222	Op-Amp Circuits	5
Term 5			Term 5		
ELT 125	Basic PLC	2	ELT 125	Basic PLC	2
MCH 121	Manufacturing Process	4	MCH 121	Manufacturing Process	4
213			213		
CMET	Fluid Mechanics	3	CMET	Fluid Mechanics	3
EET241	Microcomputer Systems	4	EET241	Microcomputer Systems	4
EET 221	Semiconductor Devices	5	EET 221	Semiconductor Devices	5
Term 4			Term 4		
CS 162	Computer Science II	4	CS 162	Computer Science II	4
Summer					
	General Ed: Social Science	3		General Ed: Social Science	3
PHY 203	General Physics III	4	PHY 203	General Physics III	4
EET 123	Digital Systems III	4	EET 123	Digital Systems III	4
EET 113	Electrical Power	5	EET 113	Electrical Power	5
Term 3			Term 3		
MTH 112 PHY 202	Elementary Functions General Physics II	5 4	MTH 112 PHY 202	Elementary Functions General Physics II	5 4

SECTION # 4	(Please contac	t the Curriculum Office for suppo	rt in filling out this section if needed.)
Is this a statewide degree?	🗌 Yes 🛛 No	Has the change been approved by the consortium?	🗌 Yes 🛛 No
Is this a degree option?	🛛 Yes 🗌 No	If yes, name of the base degree:	Electronic Engineering Technology
Are there any career pathway(s) or related certificates			
attached to this degree?	🗌 Yes 🛛 No	If yes, name of career pathway(s) or related certificate	
Requested Implement (Please refer to Degree	tation Term e/Certificate timeline i	Winter '12	

	Mike Farrell
Submitted By:	
	Mike.farrell@pcc.edu
Email:	

- 1. Save the completed Associate of Applied Science Revision Request Form and submit as an e-mail attachment to <u>dac@pcc.edu</u>.
- 2. Download and print the Associate of Applied Science Revision Signature Page Form and obtain the appropriate signatures.
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Community College		ASSOCIATE OF APPLIED       r         SCIENCE DEGREE       signature pa         REVISION REQUEST FORM       Signature pa         Curr       Curr		ons: Fill out completely and eturn electronically to: <u>dac@pcc.edu</u> ges should be intercampus mailed to: culum Office DC / 4 <sup>th</sup> floor		
		SECTI	ION # 1 OVERVIE	W		
Current Title:	Biomedical E Technology A		Proposed Title:	Biomedical Engir	neering Technolo	gy AAS Degree
Current Credits:	102		Proposed Credits:	102		
Overview and rationale for proposed changes:	To align FFT degree outcomes with PCC assessment plans					
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).						
All degree/certi	ficate outcome		EREQUISITES AND the committee regardles		t outcomes have	changed.
Current Prerequisites	Does the re	vision involve chan	ging degree prerequis	ites?	🗌 Yes	🛛 No
Course Number		Course Title	or Placement level			
MTH 111	College Alge				Placement	
WR 121	English Com	position			Completion	

Proposed Prerequisites			
Course Number	Course Title or Placement level		
MTH 111	College Algebra	Placement	
WR 121	English Composition	Completion	
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.		on involve changin outcomes?
Identify which college AAS deg degree outcomes. <b>Degree Outcome</b>	gree outcome aligns to individual core outcomes. It is possible that all core ou	utcomes may not b	
Students who complete this de	pareo should be able to:	Core Out	come
<ul><li>Qualify for employment ir</li><li>Install, service and repair</li></ul>	the medical equipment field as technicians. medical equipment systems, and perform technician work in the manufacturing o ms by applying knowledge of electrical, electronics, control systems, networking, ncepts.	of	

dentify which college AAS degree outcome aligns to individual core outcomes. It is possible that all core outcome degree outcomes.	
Degree Outcome	Core Outcome
Students who complete this degree should be able to:	·
Predict and characterize analog circuit behavior by applying analog circuit analysis techniques.	Critical Thinking and Professional Competence
Assess and create desired digital logic circuit outputs by employing digital logic methods of reduction and analysis.	Critical Thinking and Professional Competence
Simulate, force, and measure DC and AC circuit quantities by using industry standard software and test equipment.	Critical Thinking and Professional Competence
Communicate effectively both at the individual level and within team settings.	Communication and Professional Competence
Carry out instructions and automate highly repetitive or monotonous tasks by utilizing programming skills.	Critical Thinking and Professional Competence
Model and troubleshoot non-linear circuits and systems.	Critical Thinking and Professional Competence
Communicate in a medical setting using proper medical terminology.	Communication and Professional Competence
Troubleshoot and operate electronic biomedical equipment.	Critical Thinking and Professional Competence

# **SECTION # 3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such.

If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

	CURRENT DEGREE INFORMATION			PROPOSED DEGREE INFORMATIO	N	
COURSE			COURSE			
NUMBER	COURSE TITLE	CREDITS	NUMBER	COURSE TITLE	CREDITS	
Term 1			Term 1			

EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1
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
	General Ed: Social Science	3		General Ed: Social Science	3
MTH 111	College Algrebra	5	MTH 111	College Algrebra	5
Term 2			Term 2		
EET 112	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
EET 122	Digital Systems II	4	EET 122	Digital Systems II	4
EET 188	Industrial Safety	1	EET 188	Industrial Safety	1
CIS 179	Data Comm Concepts I	4	CIS 179	Data Comm Concepts I	4
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
Term 3			Term 3		
EET 113	Electrical Power	5	EET 113	Electrical Power	5
EET 123	Digital Systems III	4	EET 123	Digital Systems III	4
EET 178	PC Architecture for Tech.	4	EET 178	PC Architecture for Tech.	4
CS133U	Intro to C	4	CS133U	Intro to C	4
Or	Computer Science I		Or	Computer Science I	
CS 161			CS 161		
Term 4			Term 4		
EET 221	Semiconductor Devices	5	EET 221	Semiconductor Devices	5
EET241	Microcomputer Systems	4	EET241	Microcomputer Systems	4
Or CIS	Data Comm Concepts II		Or CIS	Data Comm Concepts II	
278			278		
EET 260	Biomedical Equip. I	3	EET 260	Biomedical Equip. I	3
	General Ed: Arts and Letters	3		General Ed: Arts and Letters	3
Term 5			Term 5		
EET 222	Op-Amp Circuits	5	EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4	EET 242	Microcontroller Systems	4
EET 254	Seminar	1	EET 254	Seminar	1
EET 261	Biomed Equip. II	4	EET 261	Biomed Equip. II	4
EET 280	CE: BMET Practicum	4-11	EET 280	CE: BMET Practicum	4-11
Term 6			Term 6		
EET 223	RF Communication Circuits	5	EET 223	RF Communication Circuits	5
EET 273	Electronic Control Systems	3	EET 273	Electronic Control Systems	3

Total	Credit	102	То	tal	102
SECTION # 4	(Please contac	t the Curriculum Off	ice for suppo	rt in filling out this section if	needed.)
Is this a statewide degree? Is this a degree option?	☐ Yes ⊠ No ⊠ Yes ☐ No	Has the change been an consortiun If yes, name of the b	i?	☐ Yes ⊠ No Electronic Engineering Tech	inology
Are there any career pathway(s) or related certificates attached to this degree? Requested Implemen (Please refer to Degree		If yes, name of career related certifi mplementation guidelines	cate	Winter '12	

	Mike Farrell
Submitted By:	
	Mike.farrell@pcc.edu
Email:	

- 1. Save the completed Associate of Applied Science Revision Request Form and submit as an e-mail attachment to <u>dac@pcc.edu</u>.
- 2. Download and print the Associate of Applied Science Revision Signature Page Form and obtain the appropriate signatures.
- Staple the signed Associate of Applied Science Signature Page Form to a hard copy of the Associate of Applied Science Revision Request Form (electronic version has already been sent in step one). Send both forms to Curriculum Office, Downtown Center, DC - 4<sup>th</sup> floor via campus mail.

Portland Commu College	Portland Community College		E DEGREE EQUEST FORM	re Signature pag Curric	ons: Fill out con turn electronic <u>dac@pcc.ed</u> es should be in to: culum Office D	ally to: <u>du</u> ntercampus mailed
		SECTI	ON # 1 OVERVIE	N		
Current Title:	Wireless and Communicati Technology A	ons Engineering	Proposed Title:	Wireless and Data Technology AAS		ns Engineering
Current Credits:	98		Proposed Credits:	98		
Overview and rationale for proposed changes:	To align FFT degree outcomes with PCC assessment plans					
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).	being proposed ( i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes,					
All degree/certif	icate outcome		EREQUISITES AND (		t outcomes have	changed.
Current Prerequisites	Does the re	vision involve chang	ging degree prerequis	ites?	☐ Yes	🖂 No
Course Number		Course Title	or Placement level			
MTH 111	College Alge				Placement	
WR 121	English Com	position			Completion	

Proposed Prerequisites		
Course Number	Course Title or Placement level	
MTH 111	College Algebra	Placement
WR 121	English Composition	Completion
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing degree outcomes? ⊠Yes □No
Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	utcomes may not be address by the AAS
Degree Outcome		Core Outcome
Students who complete this de	egree should be able to:	I
<ul> <li>Qualify for employment in</li> <li>Install, service and repair manufacturing area of wir electronics, wireless and</li> <li>Assist engineers in the de electrical, electronics, wir</li> <li>Communicate effectively</li> <li>Apply ethical and profess</li> </ul>	a the wireless and data communications field as technicians. wireless and data communications systems, and perform technician work in the reless and data communications systems by applying knowledge of electrical, data communications concepts. esign of wireless and data communications systems by applying knowledge of eless and data communications concepts. both at the individual level and within team settings. ional practice within the field of wireless and data communications nuing their education towards completion of a four-year degree in engineering	

Revised Outcomes: Identify which college AAS degree outcome aligns to individual core outcomes. It is possible that all core outcome degree outcomes.	es may not be address by the AA
Degree Outcome	Core Outcome
Students who complete this degree should be able to:	
Predict and characterize analog circuit behavior by applying analog circuit analysis techniques.	Critical Thinking and Professional Competence
Assess and create desired digital logic circuit outputs by employing digital logic methods of reduction and analysis.	Critical Thinking and Professional Competence
Simulate, force, and measure DC and AC circuit quantities by using industry standard software and test equipment.	Critical Thinking and Professional Competence
Communicate effectively both at the individual level and within team settings.	Communication and Professional Competence
Carry out instructions and automate highly repetitive or monotonous tasks by utilizing programming skills.	Critical Thinking and Professional Competence
Model and troubleshoot non-linear circuits and systems.	Critical Thinking and Professional Competence
Configure and identify different data and wireless communication systems.	Critical Thinking and Professional Competence

# **SECTION # 3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such.

If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

CURRENT DEGREE INFORMATION			PROPOSED DEGREE INFORMATION		
COURSE			COURSE		
NUMBER	COURSE TITLE	CREDITS	NUMBER	COURSE TITLE	CREDITS
Term 1			Term 1		
EET 101	Intro to Elect. Test eq	1	EET 101	Intro to Elect. Test eq	1

EET 111	Electrical Circuit Analysia	E	EET 111	Electrical Circuit Analysia	F
	Electrical Circuit Analysis I	5		Electrical Circuit Analysis I	5
	Digital Systems I	3	EET 121	Digital Systems I	3
	College Algrebra	5	MTH 111	College Algrebra	5
	General Ed: Social Science	3		General Ed: Social Science	3
Term 2			Term 2		
	Electric Circuit Analysis II	5	EET 112	Electric Circuit Analysis II	5
	Digital Systems II	4	EET 122	Digital Systems II	4
	Industrial Safety	1	EET 188	Industrial Safety	1
MTH 112	Elementary Functions	5	MTH 112	Elementary Functions	5
Term 3			Term 3		
EET 113	Electrical Power	5	EET 113	Electrical Power	5
EET 123	Digital Systems III	4	EET 123	Digital Systems III	4
EET 178	PC Architecture for Tech.	4	EET 178	PC Architecture for Tech.	4
CS133U	Intro to C	4	CS133U	Intro to C	4
Or (	Computer Science I		Or	Computer Science I	
CS 161			CS 161		
Term 4			Term 4		
EET 221	Semiconductor Devices	5	EET 221	Semiconductor Devices	5
EET241	Microcomputer Systems	4	EET241	Microcomputer Systems	4
MTH243	Statistics I	4	MTH243	Statistics I	4
(	General Ed: Arts and Letters	3		General Ed: Arts and Letters	3
Term 5			Term 5		
EET 222	Op-Amp Circuits	5	EET 222	Op-Amp Circuits	5
EET 242	Microcontroller Systems	4	EET 242	Microcontroller Systems	4
	Seminar	1	EET 254	Seminar	1
	Introduction to Wireless Net.	4	CIS 188	Introduction to Wireless Net.	4
	Data Communication I	4	CIS 179	Data Communication I	4
Term 6			Term 6		
	RF Communication Circuits	5	EET 223	RF Communication Circuits	5
	Capstone Project	2	EET 256	Capstone Project	2
	EET Internship		Or EET	EET Internship	
280A			280A	'	
	Wireless Security	4	CIS 189	Wireless Security	4
	Data Communication II	4	CIS 278	Data Communication II	4

Total	Credit	98	То	Credit	98
SECTION # 4	(Please contac	t the Curriculum Off	ice for suppo	rt in filling out this section if	needed.)
Is this a statewide degree? Is this a degree option?	☐ Yes ⊠ No ⊠ Yes ☐ No	Has the change been an consortium If yes, name of the b	i?	☐ Yes ⊠ No Electronic Engineering Tech	inology
Are there any career pathway(s) or related certificates attached to this degree? Requested Implemen (Please refer to Degree		If yes, name of career related certifi mplementation guidelines	cate	Winter '12	

	Mike Farrell
Submitted By:	
	Mike.farrell@pcc.edu
Email:	

- 1. Save the completed Associate of Applied Science Revision Request Form and submit as an e-mail attachment to <u>dac@pcc.edu</u>.
- 2. Download and print the Associate of Applied Science Revision Signature Page Form and obtain the appropriate signatures.
- 3. Staple the signed Associate of Applied Science Signature Page Form to a hard copy of the Associate of Applied Science Revision Request Form (electronic version has already been sent in step one). Send both forms to Curriculum Office, Downtown Center, DC 4<sup>th</sup> floor via campus mail.



# ASSOCIATE OF APPLIED SCIENCE DEGREE

**REVISION REQUEST FORM** 

Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed to:

Curriculum Office DC / 4<sup>th</sup> floor SECTION # 1 OVERVIEW

Current Title:	MT Option: Solar Voltaic Manufacturing Technology	Proposed Title:	No Change			
Guirent The.	Manalastaning reenhology	Troposed fille.				
	100	Drawaad	103			
Current Credits:		Proposed Credits:				
Overview and rationale	Addition of a new course—MT131 Intr	roduction to Programmab	le Logic Controllers	To address require	ment of PLC skills by	
for proposed changes:	some of our industry partners on entr	-	-			
	1. Add MT131 Introduction to Pro		ollers to required co	ourses		
List of specific changes	2. Revise the outcomes of the deg					
being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).	3. Increase number of credits required to earn the degree					
All degree/certi	SECTION # 2 PR ficate outcomes will be reviewed by	EREQUISITES AND the committee regardles		t outcomes have	changed.	
Current Prerequisites	Does the revision involve chang	ging degree prerequis	ites?	☐ Yes	🖂 No	
Course Number	Course Title	or Placement level				
MTH 95	Placement into Math 95 Intermed	iate Algebra				
WR 121	Placement into WR121 English C	omposition				

Proposed Prerequisites		
Course Number	Course Title or Placement level	
NA		
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing degree outcomes? ⊠Yes □No
Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	itcomes may not be address by the AA
Degree Outcome		Core Outcome
Students who complete this de	gree should be able to:	
• Install and maintain ma	nufacturing and testing systems and equipment, troubleshoot circuit and system	ms. <b>CO 3</b> Critical Thinking &Problem Solving <b>CO 5</b> Professional Competency
• Monitor and maintain s	emiconductor manufacturing processes	CO 5 Professional Competency
• Work effectively in team	ms	CO 1 Communication CO 5 Professional Competency
Communicate effective	ly with colleagues and vendors 2.2008	CO 1 Communication CO 5 Professional Competency
Revised Outcomes: Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	itcomes may not be address by the AA
Degree Outcome		Core Outcome
Students who complete this de	gree should be able to:	
Use systematic methodologie equipment problems.	es and apply understanding of process equipment to trouble-shoot common process	CO 3 Critical Thinking &Problem Solving CO 5 Professional Competency

Apply a good foundation in maintenance to perform basic industry standard maintenance procedures.	CO 5 Professional Competency
Trouble-shoot basic analog and digital circuits.	<b>CO 3</b> Critical Thinking &Problem Solving <b>CO 5</b> Professional Competency
Monitor and maintain solar voltaic manufacturing processes.	CO 5 Professional Competency
Work effectively in teams.	<b>CO 1</b> Communication <b>CO 5</b> Professional Competency
Communicate effectively with colleagues and vendors.	<b>CO 1</b> Communication <b>CO 5</b> Professional Competency

	SECTION # 3	COURSE	BY COUR	SE COMPARISON		
	CURRENT DEGREE INFORMATION		PROPOSED DEGREE INFORMATION			
COURSE NUMBER	COURSE TITLE	CREDITS	COURSE NUMBER	COURSE TITLE	CREDITS	
MTH 95	Intermediate Algebra	4	MTH 95	Intermediate Algebra	4	
WR 121	English Composition	4	WR 121	English Composition	4	
MT 101	Introduction to Semiconductor Devices	1	MT 101	Introduction to Semiconductor Devices	1	
MT 102	Introduction to Semiconductor Manufacturing	1	MT 102	Introduction to Semiconductor Manufacturing	1	
MT 104	Introduction to Solar Voltaic Process	1	MT 104	Introduction to Solar Voltaic Process	1	
	Intro to Electronics and Instrumentation (new			Intro to Electronics and Instrumentation (new title		
MT 109	title and number)	3	MT 109	and number)	3	
MT 111	Electric Circuits and Devices I	4	MT 111	Electric Circuits and Devices I	4	
CH 100	Fundamentals for Chemistry	4	CH 100	Fundamentals for Chemistry	4	
MTH 111	College Algebra for Math, Science and Engineering	5	MTH 111	College Algebra for Math, Science and Engineering	5	
MT 112	Electric Circuits and Devices II	4	MT 112	Electric Circuits and Devices II	4	
			MT 131	Intro to Programmable Logic Controllers (ADD)	3	
MTH 243	Statistics I	4	MTH 243	Statistics I	4	
MT 121	Digital Systems I	3	MT 121	Digital Systems I	3	
MT 122	Digital Systems II	3	MT 122	Digital Systems II	3	
MT 113	Electric Circuits and Devices III	4	MT 113	Electric Circuits and Devices III	4	
	Business and Professional Speech					
SP 130	Communication	4	SP 130	Business and Professional Speech Communication	4	

	Credit Total	100		Credit Total	103
100					
MT 180	High Tech Employment Strategies	1	MT 180	High Tech Employment Strategies	
Gen Ed	General Education	8	Gen Ed	General Education	
PHY 203	General Physics	4	PHY 203	General Physics	
MT 200	Semi Conductor Processing	3	MT 200	Semi Conductor Processing	
MT 228	Process Equipment III	4	MT 228	Process Equipment III	
PHY 202	General Physics	4	PHY 202	General Physics	
MT 227	Process Equipment II	3	MT 227	Process Equipment II	
MT 240	RF Plasma Technology	3	MT 240	RF Plasma Technology	
MT 223	Vacuum Technology	3	MT 223	Vacuum Technology	
MT 224	Process Equipment I	3	MT 224	Process Equipment I	
MT 222	Quality Control Methods in Manufacturing	3	MT 222	Quality Control Methods in Manufacturing	
PHY 201	General Physics	4	PHY 201	General Physics	
WR 227	Technical Writing	4	WR 227	Technical Writing	
51 215	Theory		51 215		
SP 215	Small Group Communication: Process and Theory	4	SP 215	Small Group Communication: Process and Theory	

# **SECTION #4** (Please contact the Curriculum Office for support in filling out this section if needed.)

Is this a statewide degree?	🗌 Yes 🛛 No	Has the change been approved by the consortium?	🗌 Yes 🗌 No
Is this a degree option?	🛛 Yes 🗌 No	If yes, name of the base degree:	Microelectronics technology AAS
Are there any career pathway(s) or related certificates attached to this degree?	🖂 Yes 🗌 No	If yes, name of career pathway(s) or related certificate	Solar Voltaic Manufacturing Technology COC
Requested Implement (Please refer to Degree		implementation guidelines)	2012 Spring

	Shelton Fu
Submitted By:	
	sfu@pcc.edu
Email:	

Portland Community College		CERTIFICAT REVISION REQU FORM		Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed Curriculum Office DC 4 <sup>th</sup> floor		:	
SECTION #1 OVERVIE Current Title:	Solar Volta	aic Manufacturing y Certificate	Propose	d Title:	No change		
Current Credits:	14	Propose Credits:		d	14		
Overview and rationale for proposed changes:	Revision of certificate outcome to make it more specific.						
List of specific changes being proposed i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes etc.	1. Revise certificate outcome						
		SECTION #	2 REVI	SION AF	REAS		
		Р	rerequisi	tes			1
Current Prerequisites	Does the r	evision involve changi	ng certific	ate prere	quisites?	☐ Yes	No No
Course Number		Course Title c	or Placem	ent level			
MTH 65	Competence	у					

certificate revision 1

WR 115	Competency	
Proposed Prerequisites		
Course Number	Course Title or Placement level	
No change		
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing certificate outcomes? ⊠Yes □No
Identify which certificate outco outcomes.	ome aligns to individual core outcomes. It is possible that all core outcomes m	ay not be address by the certificate
Certificate Outcome		Core Outcome
Students who complete this c	ertificate should be able to:	
• Monitor and troublesh	oot manufacturing process of solar cells.	CO 5 Professional Competency
Communicate effective	ely with colleagues, supervisors and vendors.	<b>CO 1</b> Communication <b>CO 5</b> Professional Competency
Revised Outcomes: Identify which certificate outco outcomes.	ome aligns to individual core outcomes. It is possible that all core outcomes m	ay not be address by the certificate
Certificate Outcome		Core Outcome
Students who complete this c	ertificate should be able to:	
Monitor solar voltaic man	ufacturing processes.	CO 5 Professional Competency
Communicate basic solar	voltaic concepts with colleagues and vendors.	<b>CO 1</b> Communication <b>CO 5</b> Professional Competency
	Related Instruction	

Does the revision involve changing or adding Related Instruction?	⊡Yes ⊠No					
If yes, a template for Related Instruction will need	to be filled out. The template can be found at:					
(http://www.pcc.edu/recources/aca	ademic/eac/degree/forms.html					
Additional Comments Or Changes						

# **SECTION #3 COURSE BY COURSE COMPARISON**

List all courses (current AND proposed) in the order that they are distributed in the <u>catalog</u>. If listed term by term then identify them in a term by term sequence on this form. If they identified within categories such as CORE, ELECTIVES, etc, then identify them as such. If you are adding a course place it in the preferred term or category on this form. If you want to rearrange the order of courses within the term by term sequence do so on this form.

The information you provide on this form will be reflected in the PCC catalog pages. Please ensure it is correct.

Current Certificate Information			Pro	posed Certificate Information	
Course Number	Course Title	Credits	Course Number	Course Title	Credits
CH100	Fundamentals of Chemistry	4	No change		
MT104	Introduction to Solar Voltaic Process	1			
MT101	Introduction to Semiconductor Manufacturing	1			
MT102	Introduction to Semiconductor Devices	1			
MT 109	Intro to Electronics and Instrumentation	3			
MT 121	Digital Systems I	3			
MT 180	High Tech Employment Strategies	1			
	Credit total	14		Credit total	14

certificate revision 3

SECTION #4 (Please contact the Curriculum Office for support in filling out this section)						
Is this a Related Certificate?	🛛 Yes 🗌 No		eer Pathway?	🗌 🖂 Yes 🗌 No	_	
	AAS in Solar Voltaic M	lanufacturing				
If yes, what is the base	Technology		Will the propo	osed change affect the Career Pathway or		
degree?			<b>Related Certif</b>	icate? Xes 🗌 No		
	Will change certificate outcome					
If yes, how?						
Is this a statewide certificate	?		If yes, has the change been approved by the consortium?			
🗌 Yes 🖾 No				🗌 Yes 🗌 No		
Requested Implementation Term			Spring 20 <sup>2</sup>	12		
( Please refer to <u>Degree/Certificate timeline</u> implementation gui			i)			

Submitted by:	Shelton Fu
Email:	sfu@pcc.edu
Phone:	614-7620

	Portland Community
V	College

# ASSOCIATE OF APPLIED SCIENCE DEGREE

#### **REVISION REQUEST FORM**

#### Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed to:

Curriculum Office DC / 4<sup>th</sup> floor

### **SECTION # 1 OVERVIEW**

Current Title:	MICROELECTRONICS TECHNOLOGY AAS DEGREE	Proposed Title:	No Change				
Current Credits:	103	Proposed Credits:	106				
Overview and rationale for proposed changes:		ddition of a new course—MT131 Introduction to Programmable Logic Controllers to address requirement of PLC ills by some of our industry partners on entry level technicians. Update of the wording of the outcome of the egree for clarification.					
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).	<ol> <li>Add MT131, 3cr: Introduction to Programmable Logic Controllers</li> <li>Revise the degree outcomes for clarification.</li> <li>Increase number of credits for the degree</li> </ol>						
All degree/certi	SECTION # 2 PREREQUISITES AND OUTCOMES All degree/certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed.						
Current Prerequisites	Does the revision involve changing degree	e prerequisit	es? 🗌 Y	es	⊠ No		
Course Number	Course Title or Placen	nent level					
MTH 95	Placement into Math 95 Intermediate Algebr	а					
WR 121	Placement into WR121 English Composition						

Course Number	Course Title or Placement level	
NA		
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changir degree outcomes? ⊠Yes □No
dentify which college AAS de	gree outcome aligns to individual core outcomes. It is possible that all core ou	tcomes may not be address by the AA
Degree Outcome		Core Outcome
Students who complete this de	egree should be able to:	
Operate, maintain	CO 3 Critical Thinking &Problem Solving CO 5 Professional Competency	
Troubleshoot circu	CO 3 Critical Thinking & Problem Solving CO 5 Professional Competency	
Monitor and maint	<b>CO 5</b> Professional Competency	
Work effectively in	CO 1 Communication CO 5 Professional Competency	
Communicate effe	CO 1 Communication CO 5 Professional Competency	
Revised Outcomes: Identify which college AAS de degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core ou	Itcomes may not be address by the A
		Core Outcome

CO 3 Critical Thinking &Problem Solving CO 5 Professional Competency
CO 5 Professional Competency
CO 3 Critical Thinking &Problem Solving CO 5 Professional Competency
CO 5 Professional Competency
CO 1 Communication CO 5 Professional Competency
CO 1 Communication CO 5 Professional Competency

	SECTION # 3 COURSE BY COURSE COMPARISON						
	CURRENT DEGREE INFORMATIC	ON	PROPOSED DEGREE INFORMATION				
COURSE NUMBER	COURSE TITLE	CREDITS	COURSE NUMBER	COURSE TITLE	CREDITS		
MT 101	Introduction to Semiconductor Mfg	1	MT 101	Introduction to Semiconductor Mfg	1		
MT 102	Introduction to Semiconductor Devices	1	MT 102	Introduction to Semiconductor Devices	1		
MT 103	Introduction to Micro and Nano Proc	1	MT 103	Introduction to Micro and Nano Proc	1		
MT 111	Electronic Circuits and Devices I	4	MT 111	Electronic Circuits and Devices I	4		
MTH 95	Intermediate Algebra	4	MTH 95	Intermediate Algebra	4		
WR 121	English Composition	4	WR 121	English Composition	4		
Term 2			Term 2				
CH 221	General Chemistry*	5	CH 221	General Chemistry*	5		
MT 112	Electronic Circuits and Devices II	4	MT 112	Electronic Circuits and Devices II	4		
MT 121	Digital Systems I	3	MT 121	Digital Systems I	3		
MTH 111C	Algebra for Math, Science and Engineering	5	MTH 111C	Algebra for Math, Science and Engineering	5		
Term 3			Term 3				
CH 222	General Chemistry*	5	CH 222	General Chemistry*	5		
MT 113	Electronic Circuits & Devices III	4	MT 113	Electronic Circuits & Devices III	4		
MT 122	Digital Systems II	3	MT 122	Digital Systems II	3		
MTH 243	Statistics I*	4	MTH 243	Statistics I*	4		

WR 227	Technical a	and Professional Writing I	4	WR 227	Technical	and Professional Writing I	4
				MT 131	Intro to P	Programmable Logic Controllers (ADD)	3
Term 4				Term 4		<u> </u>	
MT 223	Vacuum Te	echnology	3	MT 223	Vacuum T	Technology	3
MT 224	Process Eq	uipment l	3	MT 224	Process E	quipment l	3
PHY 201	General Ph	vsics*	4	PHY 201	General F	Physics*	4
SP 130	Business ar Communic	nd Professional Speech ation	4	SP 130	Business	and Professional Speech Communication	4
	General Ed	lucation	4		General E	Education	4
Term 5				Term 5			
MT 227	Process Eq	uipment II	3	MT 227	Process E	quipment II	3
MT 240	RF Plasma	Systems	3	MT 240	RF Plasma	a Systems	3
PHY 202	General Ph	1	4	PHY 202	General F	1	4
SP 215	Small Grou	p Communication*	4	SP 215	Small Gro	oup Communication*	4
MT180	High Tech I (ADD)	Employment Strategies	1	MT180	High Tech	n Employment Strategies (ADD)	1
Term 6				Term 6			
MT 200	Semiconductor Processing		3	MT 200	Semicono	luctor Processing	3
MT 222	Quality Co Manufactu	ntrol Methods in Iring	3	MT 222	Quality Control Methods in Manufacturing		3
MT 228	Process Eq	uipment III	4	MT 228	Process E	quipment III	4
PHY 203	General Ph	vysics*	4	PHY 203	General F	Physics*	4
	General Ed	lucation	4		General E	Education	4
		Credit Total	103			Credit Total	106
SEC	TION # 4	(Please contact t	he Curriculu	m Office f	or suppo	rt in filling out this section if	needed.)
Is this a s degr		🗌 Yes 🛛 No	Has the change con	been approv isortium?	ed by the	🗌 Yes 🗌 No	
Is this a opti		🗌 Yes 🛛 No	If yes, name o	of the base d	egree:		

Are there any career pathway(s) or related certificates attached to this degree?	🗌 Yes 🛛 No	If yes, name of career pathway(s) or related certificate	
Requested Implement (Please refer to Degre		mplementation guidelines)	2012 Spring

	Shelton Fu
Submitted By:	
	sfu@pcc.edu
Email:	

Ô	Portland Community
	College

WR 121

# ASSOCIATE OF APPLIED SCIENCE DEGREE

#### **REVISION REQUEST FORM**

#### Directions: Fill out completely and return electronically to: <u>dac@pcc.edu</u> Signature pages should be intercampus mailed to:

Curriculum Office DC / 4<sup>th</sup> floor

# **SECTION # 1 OVERVIEW**

Current Title:	Microelectronics Technology: Automated Manufacturing Technology AAS	Proposed Title:	No Change		
Current Credits:	96	Proposed Credits:	95		
Overview and rationale for proposed changes: Addition of a new course—MT131 Introduction to Programmable Logic Controllers. To address requirement of PLC skills by some of our industry partners on entry level technicians. This course will replace the current requirement of ELT125 and ELT126. Update of the wording of the outcome of the degree for clarification.					
List of specific changes being proposed (i.e. may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes, etc).					
SECTION # 2 PREREQUISITES AND OUTCOMES All degree/certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed.					
Current Prerequisites	Does the revision involve changing de	tes?	🗌 Yes	⊠ No	
Course Number	Course Title or Plac	ement level			
MTH 95	Placement into Math 95 Intermediate Alge	ebra			

Placement into WR121 English Composition

Proposed Prerequisites					
Course Number	Course Title or Placement level				
NA					
Current Outcomes: Required whether or not outcomes are being changed.	Describe what we intend students to be able to do "out there" (in life roles: worker, family member, community citizen, global citizen, and life-long learner), as opposed to a classroom activity "in here"? Good outcomes statements will suggest context to indicate this "out there" and they will describe what students can DO with what they know. The committee will review the outcomes. For guidance on writing good outcome statements.	Does the revision involve changing degree outcomes? ⊠Yes □No			
Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core o	butcomes may not be address by the AAS			
Degree Outcome		Core Outcome			
Maintain automated sys	roubleshoot automated equipment used in a manufacturing environment stems used in complex processing and workflows	CO 3 Critical Thinking &Problem Solving CO 5 Professional Competency CO 5 Professional Competency			
Work effectively in teams     CO 1 Communi     CO 5 Profession					
Communicate effectively with colleagues and vendors		<b>CO 1</b> Communication <b>CO 5</b> Professional Competency			
Revised Outcomes: Identify which college AAS deg degree outcomes.	gree outcome aligns to individual core outcomes. It is possible that all core o	outcomes may not be address by the AAS			
Degree Outcome	Core Outcome				
Students who complete this de	egree should be able to:				
• Operate, maintain and tre	CO 3 Critical Thinking &Problem Solving CO 5 Professional Competency				
<ul> <li>Maintain automated syst</li> <li>Trouble-shoot basic analog</li> </ul>	CO 5 Professional CompetencyCO 3 Critical Thinking &Problem SolvingCO 5 Professional Competency				

•	Work effectively in teams.	CO 1 Communication CO 5 Professional Competency
•	Communicate effectively with colleagues and vendors.	<b>CO 1</b> Communication <b>CO 5</b> Professional Competency

SECTION # 3 COURSE BY COURSE COMPARISON							
CURRENT DEGREE INFORMATION			PROPOSED DEGREE INFORMATION				
COURSE							
NUMBER	COURSE TITLE	S	NUMBER	COURSE TITLE	CREDITS		
MT 101	Intro to Semicond. Manuf.	1	MT 101	Intro to Semicond. Manuf.	1		
MT 102	Intro to Semicond. Devices	1	MT 102	Intro to Semicond. Devices	1		
MT 104	Intro to Solar Voltaic Process	1	MT 104	Intro to Solar Voltaic Process	1		
MT 111	Electronic Circuits & Devices I	4	MT 111	Electronic Circuits & Devices I	4		
MT 112	Electronic Circuits & Devices II	4	MT 112	Electronic Circuits & Devices II	4		
MT 113	Electronic Circuits & Devices III	4	MT 113	Electronic Circuits & Devices III	4		
MT 121	Digital Systems I	3	MT 121	Digital Systems I	3		
MT 122	Digital Systems II	3	MT 122	Digital Systems II	3		
			MT131	Intro to Programmable Logic Controllers (ADD)	3		
MT 180	High Tech Employment Strategies (ADD)	1	MT 180	High Tech Employment Strategies (ADD)	1		
MT 222	Quality Control Methods in Manufacturing	3	MT 222	Quality Control Methods in Manufacturing	3		
MT 224	Process Equipment I	3	MT 224	Process Equipment I	3		
MT 227	Process Equipment II	3	MT 227	Process Equipment II	3		
MT 228	Process Equipment III	4	MT 228	Process Equipment III	4		
MTH 111C	Col Alg for Math, Science, Engin	5	MTH 111C	Col Alg for Math, Science, Engin	5		
MTH 243	Statistics I	4	MTH 243	Statistics I	4		
PHY 201	General Physics	4	PHY 201	General Physics	4		
SP 130	Bus & Professional Speech Comm	4	SP 130	Bus & Professional Speech Comm	4		
SP 215	Small Group Communication*	4	SP 215	Small Group Communication*	4		

WR 121	English C	Composition	4	WR 121	English Composition	4
WR 227	Technical/Profession WR 1		4	WR 227	Technical/Profession WR 1	4
	General Education (Soc. Sci)		4		General Education (Soc. Sci)	4
	General I	Education	4		General Education	4
CS 161	Compute	r Science I*	4	CS 161	Computer Science I*	4
CS 162	Compute	r Science II*	4	CS 162	Computer Science II*	4
CIS 179	Data Cor	nmunication Concepts I	4	CIS 179	Data Communication Concepts I	4
EET 241		nputer Systems	4	EET 241	Microcomputer Systems	4
EET 242	Microcon	troller Systems	4	EET 242	Microcontroller Systems	4
ELT 125	Basic Pr (Remove	og Controllers-PC Base	2			
ELT 126		Controllers-PC Based	2			
	(Remove					
		e used as Gen Ed			*Could be used as Gen Ed	
		Credit Total	96		Credit Total	95
SECT	<b>FION # 4</b>	(Please contact the	e Curriculum	Office for su	pport in filling out this section if ne	eeded.)
SECT Is this a s degre	tatewide		e Curriculum is the change be conso	en approved by		eeded.)
Is this a s	tatewide ee? degree	На	s the change be	en approved by rtium?	the Yes No	
Is this a s degr Is this a	tatewide ee? degree on? ny career or tificates	Ha	is the change be conso If yes, name of t yes, name of ca	en approved by rtium? he base degree:	the Yes No Microelectronics Technology	

	Shelton Fu
Submitted By:	
	sfu@pcc.edu
Email:	

Portland Communit College	y	CONSENT AGE FORM This form maybe used of coming to the Deg Certificate Meeti Directions: Fill out co and return electronical dac@pcc.edu	l instead ree and ng. mpletely ly to:	<ol> <li>Course</li> <li>Course</li> <li>Course</li> <li>Addition</li> <li>Change pass cross</li> <li>Degree</li> <li>Change</li> <li>Degree</li> <li>Change</li> </ol>	nda form may be used for the following: title changes number changes n/Deletion of an elective in the number of pass/no edits other than the default or certificate title changes to open admissions es need to come before the nd Certificate Committee.
Submitted by:		Eric Kirchner	Email: ekirchne	@pcc.edu	Phone: x7621
Title of Degree/Certificate:	Micro AAS	pelectronics Technology	Requeste Impleme	ed ntation Term:	As soon as possible
What type of change are you requesting?	Α 🗌	ourse title change ddition of an elective Degree or certificate title c	hange		umber change of an elective
Fill in the sec	tions	below as applicable. If a	section i	s not applicabl	e, fill in N/A.
Current Course Title:				d Course Title:	
Current Course Number:			Proposed Number:	d Course	
Electives List Title:					an select the MT major upon gram for Intel but that has not
Explanation of Other:		been true for 15 years. The			