

CURRICULUM/GEN ED COMMITTEE
a standing committee of the Education Advisory Committee
Agenda
November 6, 2013
Downtown Center, Rose Room

Information Items from the Curriculum Office:
(These items do not require curriculum committee recommendation)

Experimental Courses:

AVS 199 – Airplane: Private Pilot Flight

Course Inactivation:

NA

Available Grading Option:

G 200A, G 200B, G 200C, G 200D – adding Audit and making Pass/No Pass the default

Old Business:

642. PS 200 – Introduction to Political Science
New Course

644. BIT 201 – Immunochemical Methods
Course Revision – Des, Out

2. OMT 122 – Practicum II
Contact/Credit Hour

4. AD 270 – Practicum: Addiction
Course Revision – Req

15. PSY 216 – Social Psychology
Course Revision – Des

16. GEO 240 – Cartographic Principles and Applications
New Course

New Business:

23. BI 164 – Bird ID and Ecology
Course Revision – Description

24. BI 164 – Bird ID and Ecology
Designation – General Education
25. ART 214 – History of Graphic Design
Designation – General Education
26. MM 244 – Creating Interactive Web Pages
Course Revision – Des, Req, Out
27. MTH 20 – Basic Math
Course Revision – Des, Out
28. MTH 20 – Basic Math
Contact/Credit Hour change
29. AD 278 – Practicum Preparation
Course Revision – Des, Req
30. EET 121 – Digital Systems I
Course Revision – Title, Des, Out, Req
31. EET 122 – Digital Systems II
Course Revision – Title, Des, Out
32. EET 123 – Digital Systems III
Course Revision – Title, Des, Out
33. EET 178 – PC Architecture for Technician
Course Revision – Title, Des, Out, Req
34. EET 242 – Microcontroller Systems
Course Revision – Title, Des, Out, Req
35. DM 105 – Food Safety: ServSafe
Course Revision – Title, Des, Out
36. DM 105 – Food Safety: ServSafe
Contact/Credit Hour change
37. GEO 242 – GIS Programming
New Course
38. CH 221 – General Chemistry I
Course Revision – Req
39. CH 221H – General Chemistry I: Honors
Course Revision – Req

Discussion: Assessment Plan

Portland Community College

New Course
Lower Division Collegiate (LDC)

Save this document as the course prefix and number
 Send the completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Political Science	Submitter name Phone Email	Nicholas Paine 971-722-7852 (O) 503-261-3936 (cell) nicholas.paine@pcc.edu Nicholas.paine@pcc.edu
Course Prefix and Number:	PS 200	# Credits:	4
Course Title: (60 characters max)	Introduction to Political Science	Transcript Title (30 characters max)	Introduction to Political Science
Can this course be repeated? PCC default is 0 repeats	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes How many times?	Contact hours: PER QUARTER	Lecture: <u>40</u> Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? If yes, they must have the same description and outcomes.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Course Number and Title	
GRADE OPTIONS: Check as many or as few options as you'd like Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.			
	Check all that apply		Default (Choose one)
A-F (letter grade)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Pass/No pass	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Audit in consultation with faculty	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Begin each sentence in the course description with an active verb, i.e. provides, explores, introduces, covers, presents, continues, promotes, and improves. Do not use the words: "course" or "students". Include any recommendations in the description. Please limit the description to 1-3 sentences.			

Course Description: (field will expand as needed)	Introduces the central themes and fundamental issues of political life. Examines the nature and meaning of politics and political behavior in both domestic and international settings. Explores fundamental concepts and ideas associated with government and politics. Includes political culture, philosophy, ideology, government, democracy, public policy and international relations.
Addendum to Course Description:	

General Education/Discipline Studies Standard Prerequisite Approval

If this course is requesting approval for the Gen Ed/Discipline Studies list, it will have, as a default, the following standard prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test scores. Higher levels of any of these prerequisites, or additional prerequisites can be requested. However, if the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level on the Gen Ed/Discipline Studies list, you will need to use the Prerequisite Opt-out form available on the Curriculum website pcc.edu/curriculum

<input type="checkbox"/> Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into:		<input type="checkbox"/> Placement into:	
course prefix & number: Reading 90	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
course prefix & number: Writing 90	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
course prefix & number: Math 20	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
None – please explain			

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more [guidance on writing good outcomes](#).

Learning Outcomes: (Use observable and measurable verbs)	<ol style="list-style-type: none"> 1) Apply basic concepts of politics and government to world events. 2) Analyze the behavior of individuals and political institutions as they differentiate between nations. 3) Apply analytical skills in written and oral communication in regards to current political issues. 4) Develop and articulate personal political viewpoints while maintaining respect for others' views.
Course activities and design: (from CCOG)	<ol style="list-style-type: none"> 1) Critical reflection papers 2) Written short answer exams 3) Presentations 4) Group discussions 5) Group debates 6) Current events research
Outcomes assessment strategies:	<ol style="list-style-type: none"> 1) Students accurately use general political concepts. 2) Students are able to verbalize and describe their philosophical and ideological preferences. 3) Written assignments show content knowledge as well as strong organization. 4) Research assignments indicate professional academic studies and/or readings, beyond just general websites.
Course	1) political culture

Content: Themes, Concepts, Issues and Skills: (from CCOG)	2) political philosophy 3) political ideologies 4) government: parliaments vs. presidential systems 5) democracy vs. authoritarianism 6) public policy 7) international relations and foreign policy
Reason for the new course	A large percentage of Oregon students graduate high school with no political or civic knowledge. This occurs, in part, because government is not a state requirement for high school graduation. This course serves as an introduction to politics and government to help students with their basic content knowledge and writing skills before taking the more content specific Political Science courses that required college level writing skills. Also, this course is a required course for Political Science majors at Portland State University (2012-13 Catalog p. 353-354).

Section #2 Transferability	
<p>Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state currently requires us to certify that at least one OUS school will accept our new LDC course in transfer. We anticipate that the state will soon require evidence of transferability, possibly from more than one school before a new course is approved. It is important that we address these issues as early as possible in the development and internal approval process for new courses. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these questions.</p> <p>1. Is there an equivalent lower division course at the University? 2. Will a department accept the course for its major or minor requirements? 3. Will the course be accepted as part of the University's distribution requirements?</p> <p>If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.</p>	
Which OUS school will the course transfer to? List all	Portland State University
How does it transfer Check all that apply	<input checked="" type="checkbox"/> required or support for major <input checked="" type="checkbox"/> general education distribution requirement <input checked="" type="checkbox"/> general elective <input type="checkbox"/> other (provide details)
Provide evidence of transferability: (minimum one, more preferred) Required for Gen Ed only	<input type="checkbox"/> Completed Transferability Status form <input type="checkbox"/> E-mail correspondence with receiving institution <input checked="" type="checkbox"/> Other - provide evidence
Identify comparables at Oregon schools	Portland State University – PS 200 Mount Hood Community College – PS 200
Is General Education or Cultural Diversity designation being sought at this time?	<input checked="" type="checkbox"/> Yes – Submit the General Education form <input type="checkbox"/> No

Section #3 Additional Information for new LDC courses	
How or where will the course be taught. Check all that apply	<input checked="" type="checkbox"/> on campus <input type="checkbox"/> hybrid <input type="checkbox"/> on-line (complete DL Modality form, obtain signature and submit) <input type="checkbox"/> other (explain)
Is this course in a degree or certificate as required, an elective or a prerequisite? Please provide details.	

Name of certificate(s):		# credits:
Name of degree(s):	Bachelor of Arts	# credits:4
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Required as part of the major in Political Science at Portland State University.	
Impact on other Programs and Departments		
Are there similar courses existing in other programs or disciplines at PCC? If yes, explain and/or describe the nature of acknowledgements and/or agreements that have been reached.	No	

Have you consulted with the SAC Chair(s) of other program(s) regarding potential impact such as content overlap, duplication, prerequisites, enrollment impact etc. If yes, explain and/or describe the nature of acknowledgements or agreements that have been reached.	There is no content overlap with other programs.
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Is there any potential impact on another department or campus? If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached.	There is no potential impact on another department or campus.
Implementation term:	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term AFTER the next available

Allow 3-4 months to complete the new course approval process before the course can be scheduled. Note: Most LDC courses will implement in fall or spring terms depending on the formal approval process (see timetable linking request and review to implementation term). There may be exceptions for LDC disciplines that operate as CTE programs.

Section # 4 Department Review	
This proposal has been reviewed at the SAC level and approved for submission.	
SAC Chair (type name)	Email
Rosa Bettencourt	rbettenc@pcc.edu
SAC Administrative Liaison (type name)	Email
Tonya Booker	tonya.booker@pcc.edu
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.	

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Biotechnology	Submitter name	Jayne Gallegos
		Phone	971-722-7254
		Email	jayne.gallegos@pcc.edu
Current prefix and number	BIT 201	Proposed prefix and number	same
Current course title	Immunochemical Methods	Proposed title (60 characters max)	same
# Credits	4	Proposed transcript title (30 characters max)	Immunochemical Methods
Reason for title change	No change.		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Introduces the general properties and uses of antibody molecules. Includes an overview of immune response, biosynthesis of immunoglobulin, obtain, purifying and labeling antibodies, and using antibodies in a variety of common applications (ELISA,	Introduces the general properties of antibodies. Includes an overview of the immune response, antibody structure and function, biosynthesis of immunoglobulin, methods to obtain, purify and label antibodies, and the use of antibodies in common techniques in biotechnology, such as western blot,

Western blot, immunoprecipitation and immunocytochemistry, antibody-based affinity chromatography).	immunoprecipitation, immunocytochemistry, FACS, ELISA and lymphocyte purification.
Reason for change	Updated from 2008 to current topics and text of course.

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes .	
Current learning outcomes (required information for all course revisions)	New learning outcomes
-plan, carry out and interpret the results of several different immunochemical procedures using standard laboratory protocols. These should include, but not be limited to, Ab purification, ELISA and western blot. -Communicate the methods and results of laboratory work in the form of standard scientific reports, oral presentation and the laboratory notebook	- Plan, carry out and interpret the results of several different immunochemical procedures including, but not limited to, antibody purification, western blot and ELISA assay. - Communicate the methods and results of laboratory work in the form of laboratory notebooks and other assignments as chosen by the instructor (such as problem sets, formal laboratory reports, oral presentations, etc). - Learn to design and interpret appropriate experimental controls and solve common problems associated with several common immunochemical techniques. - Practice working in teams, good laboratory practice and professionalism as it relates to working with immunochemical processes.
Reason for change	Update from 2008 to reflect updated course organization and methods used in class as well as department core requirements.

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.			
Current prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input checked="" type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input checked="" type="checkbox"/> Placement into: BIT 109, BI 112 and CH 104 or instructor approval.			
prefix & number: BIT 109	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number: BI 112	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Proposed prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input checked="" type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input checked="" type="checkbox"/> Placement into: BIT 109, BI 112 and CH 104 or instructor approval.			
prefix & number: CH 104	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes
	<input checked="" type="checkbox"/> no
If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and guidance.	

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes	
<input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
SAC Administrative Liaison (type name)	Email	Date
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.		

Portland Community College

Contact and/or Credit Hour Change

Section #1 General Information			
Department	Ophthalmic Medical Technology	Submitter name, phone, and email	Joanne Harris 971-722-5666 jmharris@pcc.edu
Course prefix and number	OMT 122	Course title	Practicum II
Contact and Credit Hours •1 credit of lecture meets 1 hr /wk (10 hr/term), plus 2 hrs/wk of study for 10 weeks = 30 hr/week •1 credit of lec-lab meets 2 hr/wk (20 hr/term), plus 1 hr of study, for 10 weeks = 30 hr/week •1 credit of lab or cooperative ed meets 3 hr/wk (30 hr/term), with minimal outside study, for 10 wks = 30 hr/week			
CURRENT CONTACT AND CREDIT HOURS		PROPOSED CONTACT AND CREDIT HOURS	
Lecture		Lecture	
Lecture/Lab		Lecture/Lab	
Lab	80 (practicum)	Lab	160 (practicum)
Total contact hours/term	80	Total contact hours/term	160
Total credits	2	Total credits	5
Reason for change:	National standards/guidelines revision increased the number of clinical experience hours required to allow program accreditation.		
LEARNING OUTCOMES: Are learning outcomes affected by this change. If you are adding or removing credits then it is expected there will be a change in the outcomes.			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, then complete the learning outcomes section of the course revision form found on the curriculum website		
IMPACT ON DEGREE AND CERTIFICATES: Are there degrees or certificates affected by this change?			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, then you need to complete a degree/certificate change form located on the curriculum website		
IMPACT ON OTHER DEPARTMENTS AND SACS: Are there changes that will impact other departments, campuses or contracting colleges? Are there courses that require this course as part of their program or as a prerequisite?			

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, please explain	
Have you consulted with SAC Chairs from other disciplines regarding potential course duplication, impact on enrollment or content overlap?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, please describe	
Implementation term	<input type="checkbox"/> Next available term after approval <input checked="" type="checkbox"/> Specific term Summer 2014	

This request will be pending until the hard copy with appropriate signatures is received by the curriculum office. Missing information may cause this request to be returned and deleted.

After submitting this form a confirmation, cost impact form, and signature page will be sent to the submitter's email address.

Then a hard copy of the request and the signature page must be signed and forwarded to the curriculum office to complete the process

Portland Community College

Course Revision

What do you want to change?
 Check all that apply- double click on the check box which opens the task window

course number

title

description (include requisites)

outcomes

x prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department	Alcohol and Drug Counselor	Submitter name	Jonny Gieber
		Phone	503 740 9478
		Email	jgieber@pcc.edu
Current prefix and number	AD 270 A	Proposed prefix and number	
Current course title	Practicum: Addiction	Proposed title (60 characters max)	
# Credits	Variable 3 - 6	Proposed transcript title (30 characters max)	
Reason for title change	The previous prerequisite course of MP 201 Electronic Medical Records was renumbered and is now MP 150 Electronic Medical Records		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. Do not use the words: course and/or student. Include recommendations in the description.	
Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
AD 270A Practicum: Addiction Provides clinical educational experience in an addiction treatment or DUII educational facility under the supervision of personnel who meet ACCBO requirements. Provides the opportunity to meet the ACCBO work experience requirements. Prerequisites: AD 102, AD152, AD153,	AD 270A Practicum: Addiction Provides clinical educational experience in an addiction treatment or DUII educational facility under the supervision of personnel who meet ACCBO requirements. Provides the opportunity to meet the ACCBO work experience requirements. Prerequisites: AD 102, AD 152, AD153, AD154, AD155, AD156, AD157,AD 278, MP 150. Corequisite: AD 70B

AD154, AD155, AD156, AD157,AD 278, MP 201. Corequisite: AD 270B	
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Reason for change	The previous prerequisite course of MP 201 Electronic Medical Records was renumbered and is now MP 150 Electronic Medical Records
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LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
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Intended Outcomes for the course	
<p>Upon successful completion students should be able to:</p> <ol style="list-style-type: none"> 1. Follow established professional addiction counseling standards and clinical procedures to conduct intake assessments and evaluations and cofacilitate addiction treatment groups in a clinical setting. 2. Follow established professional addiction counseling standards to perform case management functions and record keeping obligations in an addiction specific clinical setting. 3. Develop and deliver educational presentations for clients and their families in an addiction specific clinical setting. 4. Participate as a contributory team member in staff meetings in an addiction specific clinical setting. 5. Effectively utilize clinical supervision to hone and further develop their addiction specific counseling skills. 	

Reason for change	No changes.
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REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent
If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number: AD 102, AD 152, AD 153, AD 154, AD 155, AD 157, AD 278, MP 150	x <input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number: AD 270 B	<input type="checkbox"/> Prerequisite	x <input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes x <input type="checkbox"/> no
If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and guidance.	

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes x <input type="checkbox"/> No	
Implementation term	x <input type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Jonny Gieber	jgieber@pcc.edu	4/23/2013
SAC Administrative Liaison (type name)	Email	Date
Sarah Tillery	sarah.tillery@pcc.edu	4/23/2013
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page with the pdf file to Curriculum – DC – 4th floor.

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Psychology	Submitter name	Cynthia Golledge
		Phone	X4075
		Email	cgolledg@pcc.edu
Current prefix and number	PSY 216	Proposed prefix and number	
Current course title	Social Psychology	Proposed title (60 characters max)	
# Credits	4	Proposed transcript title (30 characters max)	
Reason for title change			

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Surveys the scientific study of how individuals think about, influence, and relate to one another with respect to social beliefs, persuasion, attraction, conformity, obedience, prejudice, aggression, and pro-social behaviors. Prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test	Surveys the scientific study of how individuals think about, influence, and relate to one another with respect to social beliefs, persuasion, attraction, conformity, obedience, prejudice, aggression, and pro-social behaviors. Prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test scores. Recommended: PSY 201A. Audit available.

scores. Audit available.	
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Reason for change	The Psychology SAC would like to recommend that students take PSY 201A prior to PSY 216 so that students have background knowledge to enhance their understanding of course topics. However, the SAC as a group does not believe that PSY 201A should be required.
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LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
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1. Apply an understanding of the impact of social and cultural forces on one’s sense of self, values, and beliefs to more effectively analyze human thinking and behaviors. 2. Critically evaluate research to understand and explain confusing, conflictual or distressing human social behavior. 3. Relate social psychological concepts and theories to the context of historic and current world, national, and local events, as well as to understanding one’s own life experiences. 4. Apply social psychological concepts and theories to reduce anti-social attitudes and behaviors and increase pro-social attitudes and behaviors within individuals and groups.	
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Reason for change	
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REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
 If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent
 If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

Placement into: .

prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
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prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
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Proposed prerequisites, corequisites and concurrent

If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes
	<input type="checkbox"/> no

If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Cynthia P Golledge	cgolledg@pcc.edu	April 1, 2013
SAC Administrative Liaison (type name)	Email	Date
Loretta Goldy, Social Sciences Dean Sylvania	lgoldy@pcc.edu	April 1, 2013
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.		

Portland Community College

New Course
Lower Division Collegiate (LDC)

Save this document as the course prefix and number
Send the completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Geography	Submitter name Phone Email	Christina Friedle 971-722-4072 Christina.friedle@pcc.edu
Course Prefix and Number:	Geo 240	# Credits:	4
Course Title: (60 characters max)	Cartographic Principles and Applications	Transcript Title (30 characters max)	Cartography
Can this course be repeated?	New LDC courses may not be repeated for credit effective 2013-14 school year.	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: Lab: 30
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? If yes, they must have the same description and outcomes.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Course Number and Title	
GRADE OPTIONS: Check as many or as few options as you'd like Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.			
	Check all that apply	Default (Choose one)	
A-F (letter grade)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Pass/No pass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Audit in consultation with faculty	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Begin each sentence in the course description with an active verb, i.e. provides, explores, introduces, covers, presents, continues, promotes, and improves. Do not use the words: "course" or "students". Include any recommendations in the description. Please limit the description to 1-3 sentences.			
Course Description: (field will expand as needed)	Explores basic cartographic design principles and how to apply them to produce high quality maps using GIS software. Introduces cartographic terminology, principles, and map-making tools. Covers visual representation and communication; how to turn geographic data into effective maps for print and the web; how to critique maps; map design and elements; and color, fonts, labels, and symbols for maps.		
	Prerequisite: GEO 265, WR 115, RD 115, and MTH 20 or equivalent placement test		

	scores.
Addendum to Course Description:	

General Education/Discipline Studies Standard Prerequisite Approval

If this course is requesting approval for the Gen Ed/Discipline Studies list, it will have, as a default, the following standard prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test scores. Higher levels of any of these prerequisites, or additional prerequisites can be requested. However, if the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level on the Gen Ed/Discipline Studies list, you will need to use the Prerequisite Opt-out form available on the Curriculum website pcc.edu/curriculum

<input checked="" type="checkbox"/> Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into:		<input type="checkbox"/> Placement into:	
course prefix & number: Geo 265	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
course prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
course prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
None – please explain			

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more [guidance on writing good outcomes](#).

Learning Outcomes: (Use observable and measurable verbs)	<p>Upon successful completion of the Cartography course, students will be able to:</p> <ul style="list-style-type: none"> • Apply cartographic principles, theory and styles to create effective maps using GIS software • Critique maps based on cartographic and design principles • Use an understanding of cartography to examine cultural and environmental issues
Course activities and design: (from CCOG)	The materials in this course will be presented in a computer lab setting through classroom lecture, discussion, software demonstration, peer critique, and computer-based labs. Other methods may be implemented such as small group work and in-class activities.
Outcomes assessment strategies:	<p>Students will be expected to demonstrate mastery of themes, concepts, issues, competencies and skills by any combination of the following:</p> <ul style="list-style-type: none"> • Written results of class labs and exercises • Participation in map critiques • Completion of a final project
Course Content: Themes, Concepts, Issues and Skills:	<p>Themes, Concepts, Issues:</p> <ul style="list-style-type: none"> • Map design & Layout • Types of Maps • Map colors

(from CCOG)	<ul style="list-style-type: none"> • Map symbols • Map labels & fonts • Map generalization • Quantitative & Qualitative data <p>Competencies and Skills:</p> <ul style="list-style-type: none"> • Design & execute various styles and types of maps • Use appropriate symbols, colors, and labels for geographic data • Use GIS to implement Cartographic principles, theory, and styles • Create and display maps in various mediums (print, web, electronic)
Reason for the new course	The Geo 240 course is being developed to expand our course offerings for the GIS Certificate Program. The course provides an opportunity for students to build and expand GIS skills with an emphasis on using maps for effective communication.

Section #2 Transferability

Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state currently requires us to certify that at least one OUS school will accept our new LDC course in transfer. We anticipate that the state will soon require evidence of transferability, possibly from more than one school before a new course is approved. It is important that we address these issues as early as possible in the development and internal approval process for new courses. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these questions.

1. Is there an equivalent lower division course at the University?
2. Will a department accept the course for its major or minor requirements?
3. Will the course be accepted as part of the University's distribution requirements?

If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.

Which OUS school will the course transfer to? List all	Portland State University
How does it transfer Check all that apply	<input checked="" type="checkbox"/> required or support for major <input type="checkbox"/> general education distribution requirement <input checked="" type="checkbox"/> general elective <input type="checkbox"/> other (provide details)
Provide evidence of transferability: (minimum one, more preferred) Required for Gen Ed only	<input type="checkbox"/> Completed Transferability Status form <input checked="" type="checkbox"/> E-mail correspondence with receiving institution <input type="checkbox"/> Other - provide evidence
Identify comparables at Oregon schools	Geography 484 (PSU)
Is General Education or Cultural Diversity designation being sought at this time?	<input type="checkbox"/> Yes – Submit the General Education form <input checked="" type="checkbox"/> No

Section #3 Additional Information for new LDC courses

How or where will the course be taught. Check all that apply	<input checked="" type="checkbox"/> on campus <input type="checkbox"/> hybrid <input type="checkbox"/> on-line (complete DL Modality form, obtain signature and submit) <input type="checkbox"/> other (explain)
Is this course in a degree or certificate as required, an elective or a prerequisite? Please provide details.	
Name of certificate(s):	Geographic Information Systems (GIS) Certificate # credits: 44
Name of degree(s):	# credits:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	It will be included as one of the Program electives.
Impact on other Programs and Departments	
Are there similar courses existing in other programs or disciplines at PCC? If yes, explain and/or describe the nature of acknowledgements and/or agreements that have been reached.	There are no equivalent or similar courses being offered in other programs.
Have you consulted with the SAC Chair(s) of other program(s) regarding potential impact such as content overlap, duplication, prerequisites, enrollment impact etc. If yes, explain and/or describe the nature of acknowledgements or agreements that have been reached.	There is no program that this course will impact.
Is there any potential impact on another department or campus? If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached.	There is no potential impact on any other department or campus.
Implementation term:	<input type="checkbox"/> Next available term after approval <input checked="" type="checkbox"/> Specify term AFTER the next available WINTER 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled. Note: Most LDC courses will implement in fall or spring terms depending on the formal approval process (see timetable linking request and review to implementation term). There may be exceptions for LDC disciplines that operate as CTE programs.	

Section # 4 Department Review	
This proposal has been reviewed at the SAC level and approved for submission.	
SAC Chair (type name)	Email
Christina Friedle	Christina.friedle@pcc.edu
SAC Administrative Liaison (type name)	Email
Tonya Booker	Tonya.booker@pcc.edu
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.	

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Biology	Submitter name	Linda Fergusson-Kolmes
		Phone	971-722-4404
		Email	Linda.fergussonkolmes@pcc.edu
Current prefix and number	BI 164	Proposed prefix and number	
Current course title	Bird ID and Ecology	Proposed title (60 characters max)	
# Credits	4	Proposed transcript title (30 characters max)	
Reason for title change			

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Bird ID and Ecology An introductory course to the biology of birds of the Pacific Northwest. Emphasizes learning bird identification in the field by sight and sound. Aspects of avian ecology, natural history, and behavior will be studied. The student will be introduced to field	Introduces the biology of birds of the Pacific Northwest. Emphasizes learning bird identification in the field by sight and sounds. Covers the study of avian ecology, natural history and behavior. Introduces field techniques for identifying and studying

techniques for identifying and studying birds. Recommended completion of WR 115 or placement into WR 121.	birds. Recommended completion of WR 115 or placement into WR 121.
Reason for change	Change to update format.

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
A student will collaboratively and independently: <ul style="list-style-type: none"> A. Develop knowledge of the common bird species in Oregon, and the ability to identify bird species anywhere in the world. B. Become familiar with field techniques for studying bird populations, behavior, breeding biology, and ecology. C. Develop knowledge of basic biological principles in ecology, behavior, evolution, anatomy and physiology, relationships between form and function, breeding, populations, and conservation biology by studying these aspects in birds. D. Develop skills in science by understanding scientific principles and research. 	
Reason for change	

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
 If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

Placement into: .

prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
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prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
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Proposed prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

Placement into: .

prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
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prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
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Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes
	<input type="checkbox"/> no

If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.

Yes
x No

Implementation term	x <input checked="" type="checkbox"/> Next available term after approval
	<input type="checkbox"/> Specify term (if AFTER the next available term)

Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum

Section # 2 Department Review

This proposal has been reviewed at the SAC level and approved for submission

SAC Chair (type name)	Email	Date
Josephine Pino	Josephine.pino@pcc.edu	August 30,2013
SAC Administrative Liaison (type name)	Email	Date
Alyson Lighthart	Alyson.lighthart@pcc.edu	August 30, 2013

This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.

Math, Science, Computer Science General Education/Discipline Studies List Request Form

If this request is accompanying a New Course Request, the New Course Request will continue forward separately and the Gen Ed/Discipline Studies request will be put on hold pending state approval of the new course.

Lower Division Collegiate (LDC) courses that apply for General Education/Discipline Studies status must:

1. Be available to all PCC students who meet the prerequisites for the course.

2. Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.

If you need to revise your course outcomes, you must complete a Course Revision form.

3. Verify Course Transfer Status using the General Education Transferability Status form.

<http://www.pcc.edu/resources/academic/eac/curriculum/resources/forms/GenEdTransferability.doc>

4. Have the Standard Prerequisites unless the SAC has completed the Prerequisite Opt-Out form and that request is approved.

5. Be an LDC course that is eligible for the AAOT Discipline Studies List.

Check with the Curriculum Office if you have questions about AAOT eligibility.

Note:

For additional information on the first five steps above, please refer to the General Education/Discipline Studies List Request Information Sheet available on the curriculum forms download page.

[General Education Request Information](#)

6. Complete the contact information:

Person Submitting This Request	Name	E-mail Address
	Linda Fergusson-Kolmes	linda.fergussonkolmes@pcc.edu
SAC Chair	Name	E-mail Address
	Josephine Pino for 2013-14	Josephine.pino@pcc.edu
SAC Admin Liaison	Name	E-mail Address
	Alyson Lighthart	Alyson.lighthart@pcc.edu

7. Complete the following Course Information:

Course Prefix and Number:	BI 164	Course Title:	Bird ID and Ecology
Course Credits:	4	Gen Ed Category:	Math, Science or Computer Science

Save this document as the course prefix and number.
Send completed form electronically to curriculum@pcc.edu

Course Prefix and Number:	BI 164	Course Title:	Bird ID and Ecology
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Course Description:	Introduces the biology of birds of the Pacific Northwest. Emphasizes learning bird identification in the field by sight and sounds. Covers the study of avian ecology, natural history and behavior. Introduces field techniques for identifying and studying birds. Recommended completion of WR 115 or placement into WR 121.
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Course Outcomes:	<p>A student will collaboratively and independently:</p> <ul style="list-style-type: none"> A. Develop knowledge of the common bird species in Oregon, and the ability to identify bird species anywhere in the world. B. Become familiar with field techniques for studying bird populations, behavior, breeding biology, and ecology. C. Develop knowledge of basic biological principles in ecology, behavior, evolution, anatomy and physiology, relationships between form and function, breeding, populations, and conservation biology by studying these aspects in birds. D. Develop skills in science by understanding scientific principles and research.
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8. Address PCC's General Education Philosophy Statement:

The faculty of Portland Community College affirms that a prime mission of the college is to aid in the development of educated citizens. Ideally, such citizens possess:

- A. understanding of their culture and how it relates to other cultures
- B. appreciation of history both from a global perspective and from a personal perspective, including an awareness of the role played by gender and by various cultures
- C. understanding of themselves and their natural and/or technological environments
- D. ability to reason qualitatively and/or quantitatively
- E. ability to conceptually organize experience and discern its meaning
- F. aesthetic and artistic values
- G. understanding of the ethical and social requirements of responsible citizenship

Such endeavors are a lifelong undertaking. The General Education component of the associate degree programs represent a major part of the college's commitment to that process.

General Education/Discipline Studies courses address, to some degree, all elements of PCC's Philosophy Statement. To be considered for the PCC General Education/Discipline Studies List, at least four elements of the Philosophy Statement must be addressed in depth. The Curriculum/General Education Committee members will use the following criteria when evaluating the request:

- a. The course includes a wide spectrum of concepts and/or a variety of theoretical models.
- b. The course attempts an examination or analysis of the discipline to which it belongs.
- c. The course explores questions related to values, ethics and belief within the human experience.
- d. The course examines the relationship of its material to other disciplines and attempts to place it in historical perspective.

A. Understanding of their culture and how it relates to other cultures.	
---	--

B. Appreciation of history both from a global	
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<p>perspective and from a personal perspective, including an awareness of the role played by gender and by various cultures.</p>	
<p>C. Understanding of themselves and/or their natural and technological environments.</p>	<p>Course Outcome:</p> <p>Develop knowledge of basic biological principles in ecology, behavior, evolution, anatomy and physiology, relationships between form and function, breeding, populations, and conservation biology by studying these aspects in birds.</p> <p>The course outcome listed above directly speaks to helping a student understand their natural environment. Basic principles in ecology include the interrelatedness of organisms with each other and with the physical environment .</p>
<p>D. Ability to reason qualitatively and/or quantitatively.</p>	<p>Course Outcomes:</p> <p>Become familiar with field techniques for studying bird populations, behavior, breeding biology, and ecology.</p> <p>This course outcome listed above speaks to the ability to reason quantitatively through exposing students to the different ways in which data is collected to study different aspects of bird biology</p> <p>Develop skills in science by understanding scientific principles and research.</p> <p>The course outcome listed above directly speaks to helping a student develop the ability to reason qualitatively and quantitatively. Part of developing skills in science is understanding the scientific method and the process of making conclusions based on data. A research based approach would expose students to how scientists collect and use data to further knowledge in the field reasoning both qualitatively and quantitatively.</p>
<p>E. Ability to conceptually organize experience and discern its meaning.</p>	<p>Course Outcomes:</p> <p>Develop knowledge of the common bird species in Oregon, and the ability to identify bird species anywhere in the world.</p> <p>The course outcome listed above speaks to the ability to generalize knowledge and apply it outside of the classroom. The general characteristics of a bird family in Oregon would be useful to identifying related organisms anywhere in the world. This is to organize the experience and to discern its meaning in a phylogenetic context.</p> <p>Become familiar with field techniques for studying bird populations, behavior, breeding biology, and ecology</p>

	The course outcome listed above speaks to the helping students develop the ability to conceptually organize experience and discern meaning because part of interpreting field data is knowing what it does tell you and what it does not. It also needs to be interpreted in context of what is already known.
F. Aesthetic and artistic values.	<p>Course Outcome: Develop knowledge of the common bird species in Oregon, and the ability to identify bird species anywhere in the world.</p> <p>An appreciation of the diverse beauty of the common bird species in Oregon is an exercise in aesthetic appreciation. Understanding the role of many of the physically beautiful aspects of birds (e.g. mating plumage) in their biology is a way to extend an aesthetic appreciation.</p>
G. Understanding of the ethical and social requirements of responsible citizenship.	<p>Course Outcome: Develop knowledge of basic biological principles in ecology, behavior, evolution, anatomy and physiology, relationships between form and function, breeding, populations, and conservation biology by studying these aspects in birds.</p> <p>The course outcome listed above speaks to responsible citizenship in the natural world. Topics in conservation biology will include the role of human activities on health of the environment and the relationship of that with healthy bird populations.</p>

Science or Computer Science

Outcomes:

As a result of taking General Education Science or Computer Science courses, a student should be able to:

- Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions;
- Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically evaluate existing or alternative explanations, solve problems, and make evidence-based decisions in an ethical manner; and
- Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Criteria:

A General Education course in either Science or Computer Science should:

1. Analyze the development, scope, and limitations of fundamental scientific concepts, models, theories, and methods.
2. Engage students in problem-solving and investigation, through the application of scientific and mathematical methods and concepts, and by using evidence to create and test models and draw conclusions. The goal should be to develop analytical thinking that includes evaluation, synthesis, and creative insight.
3. Examine relationships with other subject areas, including the ethical application of science in human society and the relevance of science to everyday life.

In addition:

- 4a. A General Education course in Science should engage students in collaborative, hands-on and/or real-

life activities that develop scientific reasoning and the capacity to apply mathematics and that allow students to experience the exhilaration of discovery.

4b. A General Education course in Computer Science should engage students in the design of algorithms and computer programs that solve problems.

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*

- A. Develop knowledge of the common bird species in Oregon, and the ability to identify bird species anywhere in the world.
- B. Become familiar with field techniques for studying bird populations, behavior, breeding biology, and ecology.
- C. Develop knowledge of basic biological principles in ecology, behavior, evolution, anatomy and physiology, relationships between form and function, breeding, populations, and conservation biology by studying these aspects in birds.
- D. Develop skills in science by understanding scientific principles and research.

***Note:** It must be clearly evident that the above outcomes are addressed within the course's outcomes.

How does the course enable a student to “gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions”?**

The course introduces students to a generalized set of characteristics for a particular phylogenetic rank of birds and then asks them to apply that to the identification of specimens in the field. Applying the knowledge of bird biology to enhance the field experience by knowing ‘where to look’ is a exposure to the exhilaration of discovery.

The course also asks students to understand how field techniques are used to gather information to study birds but also to understand the limitation of those techniques.

The development of skills in science would include an introduction to the development of hypothesis and the process of the scientific method. Conclusions drawn from a particular data set are then used to generate the next question.

Project based-assignments allow students to investigate an area of interest and to further the discovery process. Students are required to compile field journals for each of the 6 field trips and use their notes to investigate the value of good longitudinal record keeping in field studies.

How does the course enable a student to “apply scientific and technical modes of inquiry, individually, and collaboratively, to critically evaluate existing or alternative explanations, solve problems, and make evidence-based decisions in an ethical manner”?**

The course exposes students to the concepts of conservation in the context of a basic grounding in bird biology and ecology. Topics are introduced that highlight the conflict that sometimes arises between human use of the resources in the natural environment and the needs of the other organisms.

Discussions of competing resource needs provide an opportunity for discussion of evidence-based decisions that need to be made in an ethical manner.

How does the course enable a student to “assess the strengths and weaknesses of scientific studies and critically

A basic discussion of bird identification would include the limitations involved in just using one modality e.g. physical appearance to make species identifications. The case of the Eastern and Western Meadowlark is an example of where the physical appearance of the two groups would not lead

<p>examine the influence of scientific and technical knowledge on human society and the environment"?**</p>	<p>someone to think they were different species but further investigation of the song patterns and genetic analysis leads biologists to classify these groups as two different species. This is an example of where critical assessment of the concept of species is necessary to finish classification. Discussions of the basic ecology of a bird species would emphasize the degree of connectedness of that species to other species. A discussion of conservation in that context would highlight how the role of limited understanding of the complexity of these relationships might limit the ability of a policy maker to take action. For example the unintended consequences of the use of the pesticide DDT on the health of many bird populations, or the role of climate change in altering migration patterns would be topical ways in which to address this outcome.</p>
<p>**Note: Between your answers to the three outcomes questions above, you need to address all of the first three criteria as well as the appropriate fourth criterion.</p>	

Mathematics

Outcomes:

As a result of taking General Education Mathematics courses, a student should be able to:

- Use appropriate mathematics to solve problems; and
- Recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results.

Criteria:

A collegiate level Mathematics course should require students to:

1. Use the tools of arithmetic and algebra to work with more complex mathematical concepts.
2. Design and follow a multi-step mathematical process through to a logical conclusion and judge the reasonableness of the results.
3. Create mathematical models, analyze these models, and, when appropriate, find and interpret solutions.
4. Compare a variety of mathematical tools, including technology, to determine an effective method of analysis.
5. Analyze and communicate both problems and solutions in ways that are useful to themselves and to others.
6. Use mathematical terminology, notation and symbolic processes appropriately and correctly.
7. Make mathematical connections to, and solve problems from, other disciplines.

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*	
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***Note:** It must be clearly evident that the above outcomes are addressed within the course's outcomes.

How does the course enable a student to "use appropriate mathematics to solve problems"?**	
--	--

How does the course enable a student to "recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results"?**	
---	--

****Note:** Between your answers to the two outcomes questions above, you need to address all seven criteria.

Arts and Letters General Education/Discipline Studies List Request Form

If this request is accompanying a New Course Request, the New Course Request will continue forward separately and the Gen Ed/Discipline Studies request will be put on hold pending state approval of the new course.

Lower Division Collegiate (LDC) courses that apply for General Education/Discipline Studies status must:

1. Be available to all PCC students who meet the prerequisites for the course.

2. Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.

If you need to revise your course outcomes, you must complete a Course Revision form.

3. Verify Course Transfer Status using the General Education Transferability Status form.

<http://www.pcc.edu/resources/academic/eac/curriculum/resources/forms/GenEdTransferability.doc>

4. Have the Standard Prerequisites unless the SAC has completed the Prerequisite Opt-Out form and that request is approved.

5. Be an LDC course that is eligible for the AAOT Discipline Studies List.

Check with the Curriculum Office if you have questions about AAOT eligibility.

Note:

For additional information on the first five steps above, please refer to the General Education/Discipline Studies List Request Information Sheet available on the curriculum forms download page.

[General Education Request Information](#)

6. Complete the contact information:

Person Submitting This Request	Name	E-mail Address
	Christine Weber	christine.weber15@pcc.edu
SAC Chair	Name	E-mail Address
	Elizabeth Bilyeu	ebilyeu@pcc.edu
SAC Admin Liaison	Name	E-mail Address
	Kate Dins	kdins@pcc.edu

7. Complete the following Course Information:

Course Prefix and Number:	Art 214	Course Title:	History of Graphic Design
Course Credits:	4	Gen Ed Category:	Arts and Letters

Save this document as the course prefix and number.
Send completed form electronically to curriculum@pcc.edu

Course Prefix and Number:	Art 214	Course Title:	History of Graphic Design
Course Description:	<p>Explores the history of graphic design from the earliest communication technologies to the present, with a focus on the Modern era. Examines changes in style and technology within the field and considers the relationship between graphic design and its cultural, political and social contexts.</p> <p>Prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test scores. Required for students in the graphic design program.</p>		
Course Outcomes:	<ol style="list-style-type: none"> 1. Recognize graphic design as representative of the historical moment in which it was produced, while acknowledging its effect on later developments in design. 2. Identify the impact of social, cultural, technological and economic developments on design. 3. Utilize a critical vocabulary to discuss, write about, and create graphic design. 4. Think critically about the relationship between form, context and meaning in visual communication. 5. Articulate the relationships between graphic design, the history of visual culture and world history to enhance civic and global engagement. 6. Apply knowledge of the history of graphic design, visual communication and technology to design projects and/or encounters with visual culture outside of the classroom. 		

8. Address PCC's General Education Philosophy Statement:

The faculty of Portland Community College affirms that a prime mission of the college is to aid in the development of educated citizens. Ideally, such citizens possess:

- A. understanding of their culture and how it relates to other cultures
- B. appreciation of history both from a global perspective and from a personal perspective, including an awareness of the role played by gender and by various cultures
- C. understanding of themselves and their natural and technological environments
- D. ability to reason qualitatively and quantitatively
- E. ability to conceptually organize experience and discern its meaning
- F. aesthetic and artistic values
- G. understanding of the ethical and social requirements of responsible citizenship

Such endeavors are a lifelong undertaking. The General Education component of the associate degree programs represent a major part of the college's commitment to that process.

General Education/Discipline Studies courses address, to some degree, all elements of PCC's Philosophy Statement. To be considered for the PCC General Education/Discipline Studies List, at least four elements of the Philosophy Statement must be addressed in depth. The Curriculum/General Education Committee members will use the following criteria when evaluating the request:

- a. The course includes a wide spectrum of concepts and/or a variety of theoretical models.
- b. The course attempts an examination or analysis of the discipline to which it belongs.
- c. The course explores questions related to values, ethics and belief within the human experience.
- d. The course examines the relationship of its material to other disciplines and attempts to place it in historical perspective.

A. Understanding of their culture and how it relates to other cultures.	<ul style="list-style-type: none"> • Students analyze the relationships between graphic design, the history of visual culture and world history to enhance their civic and global engagement. • Throughout the term students also articulate the connections between graphic design and its historical, social and political
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	<p>context and explore the ways in which graphic design and graphic design history are affected by the viewer's vantage point.</p>
<p>B. Appreciation of history both from a global perspective and from a personal perspective, including an awareness of the role played by gender and by various cultures.</p>	<ul style="list-style-type: none"> • Students are encouraged to recognize graphic design as representative of the historical moment in which it was produced, while acknowledging its effect on later developments in design. • Students identify the impacts of social, cultural, technological and economic developments on design and use the historical, social and political context of specific cultures to analyze the "meaning" of particular designs. • Students continue to consider the influence of graphic design on their own culture and the influence of design on global cultural relationships.
<p>C. Understanding of themselves and their natural and technological environments.</p>	<ul style="list-style-type: none"> • Students constantly assess the ways in which a work of design is affected by their own vantage points. They are encouraged to make connections between design made by a variety of different cultures and their own cultural experiences today. • Students learn to identify the impact of social, cultural, technological and economic developments on design in the past and in contemporary cultures.
<p>D. Ability to reason qualitatively and quantitatively.</p>	
<p>E. Ability to conceptually organize experience and discern its meaning.</p>	<ul style="list-style-type: none"> • Students appreciate simultaneously the uniqueness of a piece of graphic design, its origins and precedent, its potential as an inspiration and influence on later design, and its relationship to a particular cultural moment. • Students are encouraged to think critically about the relationship between form, context and meaning in visual communication.
<p>F. Aesthetic and artistic values.</p>	<ul style="list-style-type: none"> • Students recognize and discriminate among various styles of graphic design and their cultural impact. • Students conduct formal analyses of works of graphic design and articulate the way their elements are interrelated.
<p>G. Understanding of the ethical and social requirements of responsible citizenship.</p>	<ul style="list-style-type: none"> • Students consider the relationships between graphic design and economics, religion, politics, and the social fabric, articulating connections between the history of design, technology and the contemporary world to enhance civic and global engagement today.

Arts and Letters

Outcomes:

As a result of taking General Education Arts & Letters courses, a student should be able to:

- Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life; and
- Critically analyze values and ethics within a range of human experience and expression to engage more fully in local and global issues.

Criteria:

A course in Arts & Letters should:

1. Introduce the fundamental ideas and practices of the discipline and allow students to apply them.
2. Elicit analytical and critical responses to historical and/or cultural works, such as literature, music, language, philosophy, religion, and the visual and performing arts.
3. Explore the conventions and techniques of significant forms of human expression.
4. Place the discipline in a historical and cultural context and demonstrate its relationship with other discipline.
5. Each course should also do at least one of the following:
 - Foster creative individual expression via analysis, synthesis, and critical evaluation;
 - Compare/contrast attitudes and values of specific historical periods or world cultures; and
 - Examine the origins and influences of ethical or aesthetic traditions.

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*

Criteria 1:

- Utilize a critical vocabulary to discuss, write about, and create graphic design.
- Think critically about the relationship between form, context and meaning in visual communication.

Criteria 2:

- Utilize a critical vocabulary to discuss, write about, and create graphic design.
- Think critically about the relationship between form, context and meaning in visual communication.

Criteria 3:

- Recognize graphic design as representative of the historical moment in which it was produced, while acknowledging its effect on later developments in design.
- Think critically about the relationship between form, context and meaning in visual communication.

Criteria 4:

- Recognize graphic design as representative of the historical moment in which it was produced, while acknowledging its effect on later developments in design.
- Identify the impact of social, cultural, technological and economic developments on design.
- Articulate the relationships between graphic design, the history of visual culture and world history to enhance civic and global

engagement.

Criteria 5:

- Recognize graphic design as representative of the historical moment in which it was produced, while acknowledging its effect on later developments in design.
- Articulate the relationships between graphic design, the history of visual culture and world history to enhance civic and global engagement.
- Apply knowledge of the history of graphic design, visual communication and technology to design projects and/or encounters with visual culture outside of the classroom.

***Note:** It must be clearly evident that the above outcomes are addressed within the course's outcomes.

How does the course enable a student to “interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life”?*

In this course, students analyze the history of visual communication and modern graphic design both formally and contextually. They make connections between the elements of design and the social and political context in which images were produced. Students explore the conventions and techniques of visual design and consider the long history of global communication and artistic expression. Throughout the term students examine how design plays an integral role in daily life and is reflective of the values and ideas of particular cultures and societies. Students are encouraged to creatively engage with the history of graphic design, to explore their own relationship to visual images and become aware of the impact of art and design on their daily lives.

How does the course enable a student to “critically analyze values and ethics within a range of human experience and expression to engage more fully in local and global issues”?*

Students examine the origins and influences of visual communication beginning in Africa, Europe, and the Near East. They explore the ways that design and culture are related, making connections between the history of visual communication, technological development and political and social changes throughout world history. Students reflect on the political and social implications of graphic design and consider how their own cultural experiences and knowledge of Western culture has shaped their understanding of global communication and informed their reception of graphic design today.

<p>*Note: Between your answers to the two outcomes questions above, you need to address all of the first four criteria as well as at least one of the criteria listed in the second set of three.</p>	

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the box to open the task window

- course number
 title
 description
 prerequisites and co-requisites
 outcomes

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Multimedia	Submitter name	Beth Fitzgerald
		Phone	971-722-5672
		Email	efitzger@pcc.edu
Current prefix and number	MM244	Proposed prefix and number	
Current course title	Creating Interactive Web Pages	Proposed title (60 characters max)	
Reason for title change		Proposed transcript title (30 characters max)	

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb. **Avoid** using the phrases: This course will and/or students will. Include recommendations in the description. Note: if you are only changing the prerequisites, please skip this section and go directly to requisite section below

Current Description	Proposed Description
Develop web pages using multimedia industry standard web page development software, such as Macromedia Dreamweaver (TM) and web animation tools, such as Macromedia Flash (TM). Incorporate multimedia elements for optimal internet delivery. Commercially available multimedia elements (clip media) will be used for constructing the web page. Prerequisites: CAS 111D and MM 231 or	Covers creating web pages using industry standard web development tools such as HTML5, CSS, and Content Management Systems. Incorporates multimedia elements for optimal delivery on multiple devices. Prerequisites: MM140.

instructor permission.	
Reason for change	Update

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), not in the classroom outcomes. Three to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes	New learning outcomes
<ol style="list-style-type: none"> review basic multimedia design guidelines for web page construction; using web page creation software (Macromedia Dreamweaver™), create web pages incorporating multimedia elements optimized for internet delivery; import clip media (stock graphics, clip art, video, audio) into the basic web page application; add interactive features such as banners, and roll-overs using animation software (Macromedia Flash™); present the enhanced web pages to the class; participate in individual & group evaluations of the multimedia web page project, identifying items for improvement; implement the requested changes; add the multimedia web page project to the MM portfolio & Department Web Site, as directed. 	<p>Integrate video, audio, graphics, and 3D elements into a comprehensive web page.</p> <p>Customize web output for viewing on different devices.</p> <p>Connect a web page using the latest social media technologies.</p> <p>Evaluate existing trends of media delivery and propose options for improvement to potential clients.</p>

Reason for change	Update/consolidation
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REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into:			
prefix & number: MM 231	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

prefix & number: CAS 111D	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into:			
prefix & number: MM140	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes
	<input checked="" type="checkbox"/> no
If yes. Then check to see if the hours of student learning should be amended in the related instruction template to reflect the revision. This may require a related instruction curriculum revision. Visit the comprehensive related instruction website to for information and guidance.	

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes	
<input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term(if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission.		
SAC Chair	Email	Date
Beth Fitzgerald	efitzger@pcc.edu	9/25/13
SAC Administrative Liaison	Email	Date

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Mathematics	Submitter name	Virginia Somes
		Phone	971-722-5391
		Email	vsomes@pcc.edu
Current prefix and number	MTH 20	Proposed prefix and number	
Current course title	Basic Math	Proposed title (60 characters max)	
# Credits	4 credits	Proposed transcript title (30 characters max)	
Reason for title change			

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Use fractions, decimals, percents, integers, and measurements to write, manipulate, interpret, and solve application and formula problems. Introduce concepts of basic statistics. A scientific calculator is required. The TI-30X II is recommended. Prerequisite: (ABE 0750 or placement into	Cover fractions, decimals, percents, integers, and measurements necessary to write, manipulate, interpret, and solve application and formula problems. Introduce concepts of basic statistics. A scientific calculator is required. The TI-30X II is recommended. Prerequisite: (ABE 0750 or placement into Mth 20) and (placement into RD 80 or ESOL 250).

Mth 20) and (placement into RD 80 or ESOL 250).	
Reason for change	Slight change of wording to better describe the course

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes .	
Current learning outcomes (required information for all course revisions)	New learning outcomes
<ul style="list-style-type: none"> Choose and perform accurate arithmetic computations in a variety of situations with and without a calculator. Creatively and confidently apply mathematical problem solving strategies. Meet the prerequisite for future course work. 	<ul style="list-style-type: none"> Choose and perform accurate arithmetic computations involving fractions, decimals, signed numbers, and/or percentages Solve application problems involving fractions, decimals, signed number, proportions, and/or percentages. Creatively and confidently apply mathematical problem solving strategies. Meet the prerequisite for future course work.
Reason for change	The new outcomes were more specific and better represented the goals the SAC wants to achieve with this course.

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.			
Current prerequisites, corequisites and concurrent			
If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent			
If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes
	<input checked="" type="checkbox"/> no

If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.

<input checked="" type="checkbox"/> Yes	The Dental Laboratory Technology 2-year Certificate requires MTH 20 as one of its courses. The SAC has been contacted about these changes.
<input type="checkbox"/> No	

Implementation term	<input type="checkbox"/> Next available term after approval
	<input checked="" type="checkbox"/> Specify term (if AFTER the next available term) – Fall 2014

Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum

Section # 2 Department Review

This proposal has been reviewed at the SAC level and approved for submission

SAC Chair (type name)	Email	Date
Carly Vollet	carly.vollet@pcc.edu	10/16/2013
SAC Administrative Liaison (type name)	Email	Date
Alyson Lighthart	alyson.lighthart@pcc.edu	10/16/2013

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Portland Community College

Contact and/or Credit Hour Change

Section #1 General Information			
Department	Mathematics	Submitter name, phone, and email	Virginia Somes 971-722-5391 vsomes@pcc.edu
Course prefix and number	MTH 20	Course title	Basic Math
Contact and Credit Hours •1 credit of lecture meets 1 hr /wk (10 hr/term), plus 2 hrs/wk of study for 10 weeks = 30 hr/week •1 credit of lec-lab meets 2 hr/wk (20 hr/term), plus 1 hr of study, for 10 weeks = 30 hr/week •1 credit of lab or cooperative ed meets 3 hr/wk (30 hr/term), with minimal outside study, for 10 wks = 30 hr/week			
CURRENT CONTACT AND CREDIT HOURS		PROPOSED CONTACT AND CREDIT HOURS	
Lecture	40	Lecture	50
Lecture/Lab		Lecture/Lab	
Lab		Lab	
Total contact hours/term	40	Total contact hours/term	50
Total credits	4 credits	Total credits	5 credits
Reason for change:	The extra contact time will enable us to include and expand upon important arithmetic topics such as reading graphs, geometric concepts (area, perimeter, volume), and unit conversions. These are important concepts that other disciplines have repeatedly told us are important for their students' success. In addition, we will incorporate study skills (time management, homework habits, reading math textbooks, preparing for a math test, self-assessment) into the course. MTH 20 is frequently one of the first classes students take when coming back to school. These students are often unprepared for the college environment and may do poorly in the course as a result. We hope that by incorporating study skills into MTH 20 we can improve retention and success for these students.		
LEARNING OUTCOMES: Are learning outcomes affected by this change. If you are adding or removing credits then it is expected there will be a change in the outcomes.			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, then complete the learning outcomes section of the course revision form found on the curriculum website		
IMPACT ON DEGREE AND CERTIFICATES: Are there degrees or certificates affected by this change?			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, then you need to complete a degree/certificate change form located on the curriculum website		

IMPACT ON OTHER DEPARTMENTS AND SACS: Are there changes that will impact other departments, campuses or contracting colleges? Are there courses that require this course as part of their program or as a prerequisite?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, please explain	<p>MTH 20 is a prerequisite for many courses in many departments. We hope that the credit change will have a positive impact on other departments because students will be better prepared for course work through the emphasis on study skills in MTH 20 and through improved understanding of the new included topics (graph reading, geometry, unit conversions) which are essential in some disciplines.</p> <p>MTH 20 is required course credits for only one certificate/degree, Dental Laboratory Technology Certificate. This two-year certificate currently requires 79 credits to complete. The credit change for MTH 20 would increase that to 80.</p>
Have you consulted with SAC Chairs from other disciplines regarding potential course duplication, impact on enrollment or content overlap?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, please describe	<p>Since we are incorporating study skills into the course, I have communicated with the CG SAC Chairs through emails about the change and also met in person with Pam Miller-Tatro. Pam teaches CG 111C, a course PCC offers on study skills for mathematics. Pam approved of our plan to incorporate study skills into MTH 20 and said she'd be happy to assist a math committee that will be formed to create study skills activities and assignments for MTH 20.</p> <p>I have communicated with Josette Beach, the Director of the Dental Program, about the credit change from 4 to 5 credits and how that would impact the Dental Laboratory Certificate.</p>
Implementation term	<input type="checkbox"/> Next available term after approval <input checked="" type="checkbox"/> Specific term – Fall 2014	

This request will be pending until the hard copy with appropriate signatures is received by the curriculum office. Missing information may cause this request to be returned and deleted.

After submitting this form a confirmation, cost impact form, and signature page will be sent to the submitter's email address.

Then a hard copy of the request and the signature page must be signed and forwarded to the curriculum office to complete the process

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- x prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to
curriculum@pcc.edu

Section #1 General Information

Department	Alcohol and Drug Counselor	Submitter name	Jonny Gieber
		Phone	503 740 9478
		Email	jgieber@pcc.edu
Current prefix and number	AD 278	Proposed prefix and number	
Current course title	Practicum Preparation	Proposed title (60 characters max)	
# Credits	1	Proposed transcript title (30 characters max)	
Reason for title change	The current prerequisite course of AD 156 is hindering the timely progress of students accepted into our program via the newly implemented cohort system.		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Course Description Provides student with the opportunity to demonstrate facility with the documentation required for the A/D practicum course, and	Provides an opportunity to demonstrate facility with the documentation required for the A/D practicum course. Includes developing an individualized plan for success in practicum.

develop an individualized plan for success in practicum. Prerequisite/Concurrent: AD 101, 102, 150, 151, 156, and WR 121.	Prerequisite/Concurrent: AD 101, 102, 150, 151 and WR 121.
Reason for change	Due to scheduling of cohort classes AD 156 can delay students entry into Practicum Preparation for one term. This was an unintended outcome of the implementation of the cohort model now being used by the A&D Program

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes .	
Current learning outcomes (required information for all course revisions)	New learning outcomes
<p>Intended Outcomes for the course</p> <p>Upon successful completion of the course, students will be able to: <input type="checkbox"/></p> <ol style="list-style-type: none"> 1. Create an academic plan that will facilitate their movement into practicum on the date they have targeted for entry. <input type="checkbox"/> 2. Develop an action plan that will result in being eligible for addiction counseling certification. <input type="checkbox"/> 3. Build a cover letter and resume that is specific to addiction treatment. <input type="checkbox"/> 4. Utilize job search and interview skills (including knowledge of requirements) appropriate to an addiction treatment setting. 	<p>Intended Outcomes for the course</p> <p>Upon successful completion of the course, students will be able to: <input type="checkbox"/></p> <ol style="list-style-type: none"> 1. Create an academic plan that will facilitate their movement into practicum on the date they have targeted for entry. <input type="checkbox"/> 2. Develop an action plan that will result in being eligible for addiction counseling certification. <input type="checkbox"/> 3. Build a cover letter and resume that is specific to addiction treatment. <input type="checkbox"/> 4. Utilize job search and interview skills (including knowledge of requirements) appropriate to an addiction treatment setting.

Reason for change	No changes.
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REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent
If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

Placement into: .

prefix & number: AD 101, 102, 150, 151, 156, and WR 121.	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input checked="" type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Proposed prerequisites, corequisites and concurrent
If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

Placement into: .

prefix & number: AD 101, 102, 150, 151 and WR 121.	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input checked="" type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
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If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)

Allow 4-6 months to complete the approval process before scheduling the course. See the timeline

for approval for details. www.pcc.edu/curriculum

Section # 2 Department Review

This proposal has been reviewed at the SAC level and approved for submission

SAC Chair (type name)	Email	Date
Jonny Gieber	jgieber@pcc.edu	9/30/2013
SAC Administrative Liaison (type name)	Email	Date
Sarah Tillery	sarah.tillery@pcc.edu	9/30/2013

This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	EET	Submitter name	David Goldman
		Phone	971-722-4464
		Email	david.goldman2@pcc.edu
Current prefix and number	EET 121	Proposed prefix and number	EET 121
Current course title	Digital Systems I	Proposed title (60 characters max)	Digital Systems 1
# Credits	3	Proposed transcript title (30 characters max)	3
Reason for title change	Common sequence numbering system		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Covers basic electrical concepts, number systems, combinational gates (AND, OR, NOT, NAND, NOR, and XOR), electrical characteristics and internal structures of TTL gates, Boolean algebra, Karnaugh mapping, and use of MSI devices including adders, decoders, encoders, multiplexes	Explores basic digital electronics concepts. Includes number systems, Boolean algebra, logic simplification, circuit troubleshooting. Includes analysis of digital logic using digital circuit simulations and basic spreadsheet skills. Prerequisite/concurrent: MTH111, EET101, EET111

and demultiplexers. Includes a 3 hour per week laboratory. Prerequisite/concurrent: MTH 111. Prerequisite/concurrent: EET 101 or department approval. Audit available.	
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Reason for change	To better align the first year digital systems sequence with all digital systems core classes of the EET program and its options and upgrade to industry standards.
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LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
<p>Upon successful completion students should be able to:</p> <ol style="list-style-type: none"> 1. Describe the operation of combinational logic gates (AND, OR, NOT, NAND, NOR, and XOR) from both an electrical and a logical point of view and be able to combine logic gates into circuits that perform various functions. 2. Use the binary number system as well as Boolean algebra, DeMorgan’s Theorem, and Karnaugh mapping to manipulate Boolean expressions. 3. Interpret the truth tables of MSI (medium scale integration) devices including adders, decoders, encoders, multiplexers and demultiplexers. 4. Analyze the overall circuit operation when a MSI device is combined with combinational gates, or other MSI devices, to create an application circuit. 5. Construct digital circuits using standard laboratory instrumentation to verify the operation of the circuits, and use PC based electronic circuit simulation software. 	<p>Upon successful completion students should be able to:</p> <ol style="list-style-type: none"> 1. Use basic electrical digital systems concepts and theorems to analyze circuits 2. Build and simulate electrical digital systems circuits and perform measurements with electronic test equipment. 3. Write technical reports using collected experiment data.

Reason for change	Align with changed made to description
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REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

department approval

prefix & number: MTH 111

Prerequisite

Corequisite

x
pre/con

prefix & number: EET 101

Prerequisite

Corequisite

X
pre/con

Proposed prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

prefix & number: MTH 111

Prerequisite

Corequisite

x
pre/con

prefix & number: EET 101

Prerequisite

Corequisite

x
pre/con

prefix & number: EET 111

Prerequisite

Corequisite

x
pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of [related instruction templates](#).

yes

x no

If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.

Yes
x No

Implementation term

x Next available term after approval

Specify term (if AFTER the next available term)

Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum

Section # 2 Department Review

This proposal has been reviewed at the SAC level and approved for submission

SAC Chair (type name)	Email	Date
Sanda Williams	sanda.williams@pcc.edu	05-17-2013
SAC Administrative Liaison (type name)	Email	Date
Dieterich Steinmetz Charmagne Ehrenhaus – Temporary Designee	dsteinme@pcc.edu	05-17-2013
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.		

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	EET	Submitter name	David Goldman
		Phone	971-722-4464
		Email	david.goldman2@pcc.edu
Current prefix and number	EET 122	Proposed prefix and number	EET 122
Current course title	Digital Systems II	Proposed title (60 characters max)	Digital Systems 2: Computing Systems
# Credits	4	Proposed transcript title (30 characters max)	4
Reason for title change	Common sequence numbering system. Better align with course description		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Second course in digital electronics presents sequential circuit elements (latches and D/JK flip-flops) with applications including counters, registers, and shift registers. Sequential network analysis and synthesis are covered including the use of state tables and state	Explores electronic hardware and circuits to store, move and calculate data. Investigates state machines, logic optimization, and analysis of digital systems. Includes modification, troubleshooting and analysis of circuits with a programmable logic device (PLD) using a hardware descriptive language (HDL), such as VHDL or Verilog. Prerequisite: EET 121.

<p>diagrams. Introduces sampling and the Nyquist Sampling Theorem including introductory coverage of analog-to-digital converters (ADC) and digital-to-analog converters (DAC). Includes a 3-hour per week laboratory. Prerequisite: EET 121 Audit available.</p>	
Reason for change	To better align the first year digital systems sequence with all digital systems core classes of the EET program and its options and upgrade to industry standards.

<p>LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes.</p>	
<p>Current learning outcomes (required information for all course revisions)</p>	<p>New learning outcomes</p>
<ol style="list-style-type: none"> 1. To be able to predict the operation of sequential digital circuits that use latches, D flip-flops, and JK flip-flops in circuit configurations including up/down counters, registers, and shift registers. 2. To be able to design a counter having a specified count sequence using state diagrams and present state/next state truth tables.. 3. To be able to apply the mathematical relationships in the Nyquist Sampling Theorem to determine the required sampling frequency, filter cutoff frequencies, and guardband for a sampling system. 4. To be able to analyze the operation of a flash-type analog-to-digital converter (ADC) and its application. 5. Construct digital circuits, use standard laboratory instrumentation to verify the operation of the circuits, and use PC-based electronic circuit simulation software. 	<p>Upon successful completion students should be able to:</p> <ol style="list-style-type: none"> 1. Use electrical digital systems to store, move and calculate data. 2. Build and simulate electrical digital systems circuits and perform measurements with electronic test equipment. 3. Write technical reports using collected experiment data.
Reason for change	Align with changed made to description

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following

prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores

If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

prefix & number: EET 121

Prerequisite

Corequisite

pre/con

Proposed prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

prefix & number: EET 121

Prerequisite

Corequisite

pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of [related instruction templates](#).

yes

no

If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.

Yes

No

Implementation term

Next available term after approval

Specify term (if AFTER the next available term)

Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum

Section # 2 Department Review

This proposal has been reviewed at the SAC level and approved for submission

SAC Chair (type name)	Email	Date
Sanda Williams	sanda.williams@pcc.edu	05-17-2013
SAC Administrative Liaison (type name)	Email	Date
Dieterich Steinmetz Charmagne Ehrenhaus – Temporary Designee	dsteinme@pcc.edu	05-17-2013

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Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	EET	Submitter name	David Goldman
		Phone	971-722-4464
		Email	david.goldman2@pcc.edu
Current prefix and number	EET 123	Proposed prefix and number	EET 123
Current course title	Digital Systems III	Proposed title (60 characters max)	Digital Systems 3: Mixed-Signal Systems
# Credits	4	Proposed transcript title (30 characters max)	4
Reason for title change	Common sequence numbering system. Better align with course description		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Third course in digital electronics continues prior coverage of digital-to-analog converters (DACs) and analog-to-digital converters (ADCs) with additional conversion topologies, a more detailed analysis of the Nyquist sampling theorem, additional coverage of programmable logic	Combines digital and analog circuit topologies. Explores Analog/Digital conversion and memory circuits. Includes modification, troubleshooting and analysis of circuits with a programmable logic device (PLD) using a hardware descriptive language (HDL), such as VHDL or Verilog. Prerequisite: EET 122.

devices (PLDs), and the implementation of sequential state machines. Includes a 3-hour per week laboratory. Prerequisite: EET 122 Audit available.	
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Reason for change	To better align the first year digital systems sequence with all digital systems core classes of the EET program and its options and upgrade to industry standards.
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LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
<ol style="list-style-type: none"> To be able to predict the operation of sequential digital circuits that use latches, D flip-flops, and JK flip-flops in circuit configurations including up/down counters, registers, and shift registers. To be able to design a counter having a specified count sequence using state diagrams and present state/next state truth tables.. To be able to apply the mathematical relationships in the Nyquist Sampling Theorem to determine the required sampling frequency, filter cutoff frequencies, and guardband for a sampling system. To be able to analyze the operation of a flash-type analog-to-digital converter (ADC) and its application. Construct digital circuits, use standard laboratory instrumentation to verify the operation of the circuits, and use PC-based electronic circuit simulation software. 	<p>Upon successful completion students should be able to:</p> <ol style="list-style-type: none"> Convert signals from analog to digital and digital to analog. Build and simulate electrical digital systems circuits and perform measurements with electronic test equipment. Write technical reports using collected experiment data.

Reason for change	Align with changed made to description
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REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores

If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the

Prerequisite Opt out form.			
Current prerequisites, corequisites and concurrent			
If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
prefix & number: EET 122	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent			
If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
prefix & number: EET 122	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes
	<input checked="" type="checkbox"/> no
If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and guidance.	

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Sanda Williams	sanda.williams@pcc.edu	05-17-2013
SAC Administrative Liaison (type name)	Email	Date
Dieterich Steinmetz Charmagne Ehrenhaus – Temporary Designee	dsteinme@pcc.edu	05-17-2013
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Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	EET	Submitter name	David Goldman
		Phone	971-722-4464
		Email	david.goldman2@pcc.edu
Current prefix and number	EET 178	Proposed prefix and number	EET 178
Current course title	PC Architecture for Technician	Proposed title (60 characters max)	Computing Environments for Technicians
# Credits	4	Proposed transcript title (30 characters max)	4
Reason for title change	Align with new course description		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Covers the architecture, assembly, and disassembly of IBM PC compatible computers. Includes basic operational concepts and identification, removal/installation, and configuration of motherboards, microprocessors, memory, power supplies, disk drives, video adapter boards, I/O boards and modems.	Surveys complex computing environments where computers, operating systems, programming languages and network connections integrate. Includes projects involving command line, terminal applications, programming, hardware identification, troubleshooting and system analysis. Includes a 3-hour per week laboratory. Prerequisite: EET 122 or MT 122

Servicing hardware, software, and documentation will be reviewed. Includes a 3-hour per week laboratory. Prerequisite: EET 111.	
Reason for change	Updates to industry standards

<p>LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes.</p>	
Current learning outcomes (required information for all course revisions)	New learning outcomes
<p>To be able to describe the purpose of, and physically locate, all the major components within a PC</p> <p>2.To be able to remove and replace all removable modules with in a PC</p> <p>3.To be able to describe the functional characteristics of all the major components within a PC and describe how a PC functions internally</p> <p>4.To be able to describe the basic operation of computer networks including commonly used transmission media, network topologies, media access control (MAC) protocols, and packet broadcasting in general</p> <p>5.To be able to construct a simple computer network (e.g., LAN)</p>	<p>Students who complete the course will be able to</p> <p>1. Identify the purpose of, and physically locate, all the major components within a computing system in order to troubleshoot, repair or replace parts.</p> <p>2. Use shell commands and scripting languages for applications prototyping and development.</p> <p>3. Apply the basic operations of computer networks including commonly used transmission media.</p>
Reason for change	Align with changed made to description

<p>REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.</p>
<p>Current prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area</p>
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores

department approval			
prefix & number: EET 111	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
prefix & number: EET 122 or MT 122	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and guidance.	

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Sanda Williams	sanda.williams@pcc.edu	05-17-2013
SAC Administrative Liaison (type name)	Email	Date
Dieterich Steinmetz Charmagne Ehrenhaus – Temporary Designee	dsteinme@pcc.edu	05-17-2013
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Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	EET	Submitter name	David Goldman
		Phone	971-722-4464
		Email	david.goldman2@pcc.edu
Current prefix and number	EET 242	Proposed prefix and number	EET 242
Current course title	Microcontroller Systems	Proposed title (60 characters max)	Microcontroller and Embedded Systems
# Credits	4	Proposed transcript title (30 characters max)	4
Reason for title change	Align with new course description		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Introduces the student to popular 8051 microcontroller. Topics include the hardware, software, and interfacing of the Intel 8051 microcontroller. The emphasis is on interfacing the 8051 to real-world devices such as switches, displays, motors, and A/D converters, through assembly language and possibly C language	Introduces the use, characterization, analysis, troubleshooting methods and programming of microcontrollers and embedded systems with a focus on application. Includes a 3-hour per week laboratory. Prerequisite: CS 161 and EET 123.

programming. Robotics projects included. Prerequisite: CS 133U; and EET 122. Audit available.	
Reason for change	Updates to industry standards

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes .	
Current learning outcomes (required information for all course revisions)	New learning outcomes
<p>1.The student will be able to program a microcontroller system in assembly code and C.</p> <p>2.The student will be able to build and test a microcontroller based system.</p> <p>3.The student will be able to interface the system to switches, keypads, and displays.</p> <p>4.The student will be able to interface the system to A/D and D/A converters.</p> <p>5.The student will be able to describe the internal architecture of the ATmega128, including counters, timers, ports, and memory.</p>	<p>Upon completion of the course the student will be able to:</p> <p>1. Program, build and test a microcontroller system.</p> <p>2. Interface a microcontroller system to user controls and other electronic systems.</p> <p>3. Describe the internal architecture a microcontroller systems, including counters, timers, ports, and memory.</p>
Reason for change	Align with changed made to description

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.			
Current prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
prefix & number: EET 122	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

prefix & number: CS 133U	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
prefix & number: CS 161	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number: EET 123	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and guidance.	

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Sanda Williams	sanda.williams@pcc.edu	05-17-2013
SAC Administrative Liaison (type name)	Email	Date
Dieterich Steinmetz Charmagne Ehrenhaus – Temporary Designee	dsteinme@pcc.edu	05-17-2013
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Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
- title
- description (include requisites)
- outcomes
- prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Foods & Nutrition (Dietary Manager)	Submitter name Phone Email	Kate Malone Kimmich (971) 722-7802 kate.malone@pcc.edu
Current prefix and number	DM 105	Proposed prefix and number	
Current course title	Food Safety: ServSafe	Proposed title (60 characters max)	Food Safety: ServSafe & Local Food Production
# Credits	1	Proposed transcript title (30 characters max)	Food Production & Safety
Reason for title change	New course to incorporate both food safety and food production instruction and skill-building		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Covers foodborne illnesses in food industry. Includes identifying and analyzing the factors which cause foodborne illnesses and food safety and sanitation through proper purchasing, preparation, handling and storage. Includes ServSafe exam.	Covers basic methods and skills related to local food production and foodborne illnesses in the food industry. Includes garden preparation, seeding, planting, and maintenance; identifying and analyzing the factors which cause foodborne illnesses; and food safety and sanitation through proper purchasing, preparation, handling and storage. Includes ServSafe exam.

Reason for change	To fulfill accreditation requirements of the Association of Nutrition and Food Professionals by adding 10 classroom hours to the Dietary Manager Certificate curriculum and (2) bolster certificate program graduates' hirability by increasing students' experiential knowledge of local food production and food safety. Addition of this content will provide a good opportunity to take students into the Learning Garden.
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LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
1. Apply safe food handling principles from purchasing, preparation, handling and storage to prevent food borne illness. 2. Continually educate staff on proper food handling procedures. 3. Ensure safe food production by performing continuous quality improvement. 4. Be prepared to earn the ServSafe certification.	1. Apply safe food handling principles from production, purchasing, preparation, handling and storage to prevent food borne illness. 2. Continually educate staff on proper food handling procedures. 3. Ensure safe food production by performing continuous quality improvement. 4. Be prepared to earn the ServSafe certification by passing a national exam. 5. <u>Prepare and maintain a garden from seed planting to harvest.</u>
Reason for change	Learning Outcome #1 changed to reflect food safety knowledge and skills related to food production; #2-4 remain unchanged. New outcome (#5) reflects addition of Learning Garden component.

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent			
If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent			
If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
<input type="checkbox"/> Standard prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing yes

the inventory of related instruction templates .	<input checked="" type="checkbox"/> no
<p>If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and guidance.</p>	

<p>IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?</p>	
Please provide details, who was contacted and the resolution.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Implementation term	<input type="checkbox"/> Next available term after approval <input checked="" type="checkbox"/> Specify term (if AFTER the next available term): Spring 2014
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Kate Malone Kimmich	kate.malone@pcc.edu	10/16/2013
SAC Administrative Liaison (type name)	Email	Date
Jen Piper	jennifer.piper1@pcc.edu	10/16/2013
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.		

Portland Community College

Contact and/or Credit Hour Change

Section #1 General Information			
Department	Foods & Nutrition (Dietary Manager)	Submitter name, phone, and email	Kate Malone Kimmich (971) 722-7802 kate.malone@pcc.edu
Course prefix and number	DM 105	Course title	Food Safety: ServSafe (current)
Contact and Credit Hours •1 credit of lecture meets 1 hr /wk (10 hr/term), plus 2 hrs/wk of study for 10 weeks = 30 hr/week •1 credit of lec-lab meets 2 hr/wk (20 hr/term), plus 1 hr of study, for 10 weeks = 30 hr/week •1 credit of lab or cooperative ed meets 3 hr/wk (30 hr/term), with minimal outside study, for 10 wks = 30 hr/week			
CURRENT CONTACT AND CREDIT HOURS		PROPOSED CONTACT AND CREDIT HOURS	
Lecture	1	Lecture	2
Lecture/Lab	0	Lecture/Lab	
Lab	0	Lab	
Total contact hours/term	10	Total contact hours/term	20
Total credits	1	Total credits	2
Reason for change:	(1) To fulfill accreditation requirements of the Association of Nutrition and Food Professionals by adding 10 classroom hours to the Dietary Manager Certificate curriculum and (2) bolster certificate program graduates' hirability by increasing students' experiential knowledge of local food production and food safety. Addition of this content will provide a good opportunity to take students into the Learning Garden.		
LEARNING OUTCOMES: Are learning outcomes affected by this change. If you are adding or removing credits then it is expected there will be a change in the outcomes.			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, then complete the learning outcomes section of the course revision form found on the curriculum website		
IMPACT ON DEGREE AND CERTIFICATES: Are there degrees or certificates affected by this change?			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, then you need to complete a degree/certificate change form located on the curriculum website – <u>Dietary Manager Certificate</u>		
IMPACT ON OTHER DEPARTMENTS AND SACS: Are there changes that will impact other departments, campuses or contracting colleges? Are there courses that require this course as part of their program or as a prerequisite?			

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, please explain	
Have you consulted with SAC Chairs from other disciplines regarding potential course duplication, impact on enrollment or content overlap?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, please describe	Discussed with Health Education SAC Chair and Sustainability/Learning Garden Coordinator; no duplication, impact on enrollment in other departments, or content overlap anticipated.
Implementation term	<input type="checkbox"/> Next available term after approval <input checked="" type="checkbox"/> Specific term - Spring 2014	

This request will be pending until the hard copy with appropriate signatures is received by the curriculum office. Missing information may cause this request to be returned and deleted.

After submitting this form a confirmation, cost impact form, and signature page will be sent to the submitter's email address.

Then a hard copy of the request and the signature page must be signed and forwarded to the curriculum office to complete the process

Portland Community College

New Course
Lower Division Collegiate (LDC)

Save this document as the course prefix and number
Send the completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Geography	Submitter name Phone Email	Christina Friedle 971-722-4072 Christina.friedle@pcc.edu
Course Prefix and Number:	Geo 242	# Credits:	4
Course Title: (60 characters max)	GIS Programming	Transcript Title (30 characters max)	GIS Programming
Can this course be repeated?	New LDC courses may not be repeated for credit effective 2013-14 school year.	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: Lab: 30
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? If yes, they must have the same description and outcomes.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Course Number and Title	
GRADE OPTIONS: Check as many or as few options as you'd like Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.			
		Check all that apply	Default (Choose one)
	A-F (letter grade)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Pass/No pass	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Audit in consultation with faculty	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Begin each sentence in the course description with an active verb, i.e. provides, explores, introduces, covers, presents, continues, promotes, and improves. Do not use the words: "course" or "students". Include any recommendations in the description. Please limit the description to 1-3 sentences.			
Course Description: (field will expand as needed)	Introduces the fundamentals of computer science in the context of Geographic Information Systems (GIS). Covers concepts used in automating mapping procedures, handling different types of data, and building custom functions using ESRI's ArcGIS software platform,. Provides opportunities to understand the dynamic inner workings of GIS using Python scripting language. Prerequisite: GEO 265, WR 115, RD 115, and MTH 20 or equivalent placement test scores.		

Addendum to Course Description:	

General Education/Discipline Studies Standard Prerequisite Approval

If this course is requesting approval for the Gen Ed/Discipline Studies list, it will have, as a default, the following standard prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test scores. Higher levels of any of these prerequisites, or additional prerequisites can be requested. However, if the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level on the Gen Ed/Discipline Studies list, you will need to use the Prerequisite Opt-out form available on the Curriculum website pcc.edu/curriculum

<input checked="" type="checkbox"/> Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
<input type="checkbox"/> Placement into:		<input type="checkbox"/> Placement into:	
course prefix & number: Geo 265	<input checked="" type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
course prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
course prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/co
None – please explain			

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more [guidance on writing good outcomes](#).

Learning Outcomes: (Use observable and measurable verbs)	Upon successful completion of the GIS Programming course, students will be able to: <ul style="list-style-type: none"> • Apply basic computer programming fundamentals to GIS • Write scripts using Python programming language • Automate and design custom tools for GIS
Course activities and design: (from CCOG)	The materials in this course will be presented in a computer lab setting through classroom lecture, discussion, software demonstration, peer critique, and computer-based labs. Other methods may be implemented such as small group work and in-class activities.
Outcomes assessment strategies:	Students will be expected to demonstrate mastery of themes, concepts, issues, competencies and skills by any combination of the following: <ul style="list-style-type: none"> • Written results of class labs and exercises • Completion of a midterm exam • Completion of a final project
Course Content: Themes, Concepts, Issues and Skills: (from CCOG)	<ul style="list-style-type: none"> • Demonstrate proficiency and comprehension of the most relevant scripting languages used within a GIS • Understand theoretical considerations of GIS scripting with regards to working with spatial data, especially with the concepts of scale and projections • Develop original scripts and tools within a GIS to process spatial data • Demonstrate the ability to integrate GIS software with other software platforms. • Demonstrate proficiencies in resolving errors with GIS programs and scripts

Reason for the new course	The Geo 242 course is being developed to expand our course offerings for the GIS Certificate Program. The course provides an opportunity for students to build and expand GIS skills with an emphasis on GIS automation using scripting languages such as Python.
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Section #2 Transferability	
<p>Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state currently requires us to certify that at least one OUS school will accept our new LDC course in transfer. We anticipate that the state will soon require evidence of transferability, possibly from more than one school before a new course is approved. It is important that we address these issues as early as possible in the development and internal approval process for new courses. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these questions.</p> <p>1. Is there an equivalent lower division course at the University? 2. Will a department accept the course for its major or minor requirements? 3. Will the course be accepted as part of the University's distribution requirements?</p> <p>If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.</p>	
Which OUS school will the course transfer to? List all	Portland State University
How does it transfer Check all that apply	<input checked="" type="checkbox"/> required or support for major <input type="checkbox"/> general education distribution requirement <input checked="" type="checkbox"/> general elective <input type="checkbox"/> other (provide details)
Provide evidence of transferability: (minimum one, more preferred) Required for Gen Ed only	<input type="checkbox"/> Completed Transferability Status form <input checked="" type="checkbox"/> E-mail correspondence with receiving institution <input type="checkbox"/> Other - provide evidence
Identify comparables at Oregon schools	Geography Lower Division Credit (LDC) course
Is General Education or Cultural Diversity designation being sought at this time?	<input type="checkbox"/> Yes – Submit the General Education form <input checked="" type="checkbox"/> No

Section #3 Additional Information for new LDC courses	
How or where will the course be taught. Check all that apply	<input checked="" type="checkbox"/> on campus <input type="checkbox"/> hybrid <input type="checkbox"/> on-line (complete DL Modality form, obtain signature and submit) <input type="checkbox"/> other (explain)
Is this course in a degree or certificate as required, an elective or a prerequisite? Please provide details.	
Name of certificate(s):	Geographic Information Systems (GIS) Certificate # credits: 44
Name of degree(s):	# credits:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	It will be included as one of the Program electives.
Impact on other Programs and Departments	
Are there similar courses existing in other programs or disciplines at	There are no equivalent or similar courses being offered in other programs.

PCC? If yes, explain and/or describe the nature of acknowledgements and/or agreements that have been reached.	
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Have you consulted with the SAC Chair(s) of other program(s) regarding potential impact such as content overlap, duplication, prerequisites, enrollment impact etc. If yes, explain and/or describe the nature of acknowledgements or agreements that have been reached.	We consulted the CS, CIS, and CAS SAC's to discuss any potential impacts with their programs. After much lively discussion, each SAC has declared that there is not potential overlap with the content taught in their respective discipline.
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Is there any potential impact on another department or campus? If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached.	There is no potential impact on any other department or campus.
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Implementation term:	<input type="checkbox"/> Next available term after approval <input checked="" type="checkbox"/> Specify term AFTER the next available SPRING 2014
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Allow 3-4 months to complete the new course approval process before the course can be scheduled. Note: Most LDC courses will implement in fall or spring terms depending on the formal approval process (see timetable linking request and review to implementation term). There may be exceptions for LDC disciplines that operate as CTE programs.

Section # 4 Department Review	
This proposal has been reviewed at the SAC level and approved for submission.	
SAC Chair (type name)	Email
Christina Friedle	Christina.friedle@pcc.edu
SAC Administrative Liaison (type name)	Email
Karen Sanders	ksanders@pcc.edu
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.	

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
 title
 description (include requisites)
 outcomes
 prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Chemistry	Submitter name	Ted Picciotto/David Brackett
		Phone	5038968141
		Email	Ted.picciotto@pcc.edu
Current prefix and number	CH221	Proposed prefix and number	
Current course title	General Chemistry I	Proposed title (60 characters max)	
# Credits	5	Proposed transcript title (30 characters max)	
Reason for title change	No Change		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
Introduces measurements, classification and properties of matter, nomenclature, atomic structure and modern atomic theory, periodic table and chemical periodicity, and chemical bonding. Recommended for chemistry and other natural science majors,	Introduces measurements, classification and properties of matter, nomenclature, atomic structure and modern atomic theory, periodic table and chemical periodicity, and chemical bonding. Recommended for chemistry and other natural science majors, and pre-professional majors in engineering, medicine and

<p>and pre-professional majors in engineering, medicine and dentistry. (If students have not successfully completed a high school or a college chemistry class with a lab component in the last 3 years they are encouraged to complete CH 151 before registering.) This is the first course in a three course sequence. Prerequisite: WR 115 and RD 115 or equivalent placement test scores. Prerequisite/concurrent: MTH 111. Audit available.</p>	<p>dentistry. (If students have not successfully completed a high school or a college chemistry class with a lab component in the last 3 years they are encouraged to complete CH 151 before registering.) This is the first course in a three course sequence. Prerequisite: WR 115 and RD 115 or equivalent placement test scores. CH151 OR Instructor Approval. Prerequisite/concurrent: MTH 111. Audit available</p>
<p>Reason for change</p>	<p>Currently banner allows students to enroll in CH221 without completion of prior introductory chemistry courses. As a SAC we feel student success would be greatly enhanced if we required CH151 Preparatory Chemistry. We are including "OR Instructor Approval" to allow for students who may have taken preparatory chemistry at other institutions.</p>

<p>LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on writing good outcomes.</p>	
<p>Current learning outcomes (required information for all course revisions)</p>	<p>New learning outcomes</p>
<ul style="list-style-type: none"> • apply the fundamental principles of measurement, matter, atomic theory and chemical bonding to subsequent courses in chemistry, biology, physics, geology, engineering and various other related disciplines that depend upon these principles for comprehension. • apply the fundamental principles of measurement, matter, atomic theory and chemical bonding to their understanding of themselves and their natural and technological environments. • use mathematical and chemical reasoning skills, both qualitative and quantitative, to solve specific problems encountered in everyday life and professional settings. • use effective collaborative skills when working with other people to solve complex problems and accomplish tasks effectively. • use an understanding of written communication skills to effectively communicate complex scientific and technological ideas, models and conclusions 	

<ul style="list-style-type: none"> • through the generation of informal and formal writings and reports in a scientifically acceptable manner. • critically evaluate sources of scientific information to logically decide the bias, strengths and weaknesses of the information concerning the effect of chemistry and chemical concepts on themselves and their environment. 	
Reason for change	No Change

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores
If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.

Current prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

x Prerequisites- WR 115, RD 115 or equivalent placement scores and prerequisite/concurrent: MTH 111.

Placement into: .

prefix & number:

Prerequisite

Corequisite

pre/con

prefix & number:

Prerequisite

Corequisite

pre/con

Proposed prerequisites, corequisites and concurrent

If you are **NOT** changing prerequisites or co-requisites **DO NOTHING** in this area

X Prerequisites - WR 115 and RD 115 or equivalent placement test scores. **CH151 OR Instructor Approval.** Prerequisite/concurrent: MTH 111.

Placement into: .

prefix & number:

Prerequisite

Corequisite

pre/con

prefix & number:

Prerequisite

Corequisite

pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of [related instruction templates](#).

x yes

no

If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a [related instruction in CTE course form](#) at the same time as you submit this course revision form. Visit the comprehensive [related instruction website](#) for information and guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Eric Kirchner, Dept Chair of Microelectronics was contacted via e-mail. Medical Laboratory Technology was contacted via e-mail. Josephine Pino, Dept Chair of Biotechnology Program was contacted via e-mail.
Implementation term	<input checked="" type="checkbox"/> Next available term after approval <input type="checkbox"/> Specify term (if AFTER the next available term)
Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum	

Section # 2 Department Review		
This proposal has been reviewed at the SAC level and approved for submission		
SAC Chair (type name)	Email	Date
Ted Picciotto David Brackett	Ted.picciotto@pcc.edu david.brackett1@pcc.edu	9/29/13
SAC Administrative Liaison (type name)	Email	Date
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4 th floor.		

Portland Community College

Course Revision

What do you want to change?

Check all that apply- double click on the check box which opens the task window

- course number
 title
 description (include requisites)
 outcomes
 prerequisites and co-requisites

[Grade option change](#)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information

Department	Chemistry	Submitter name	Ted Picciotto/David Brackett
		Phone	5038968141
		Email	Ted.picciotto@pcc.edu
Current prefix and number	CH221H	Proposed prefix and number	
Current course title	General Chemistry I: Honors	Proposed title (60 characters max)	
# Credits	5	Proposed transcript title (30 characters max)	Gen Chem I: Honors
Reason for title change	No Change		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin the course description with an active verb, i.e. covers, introduces, examines, explores, continues provides.. **Do not** use the words: course and/or student. Include recommendations in the description.

Current Description (required information for all course revisions. Include requisites)	Proposed Description (include requisites)
An honors version of General Chemistry I which will require students to investigate, critically evaluate and effectively communicate about primary sources of scientific research and topics from professional scientific presentations. In	An honors version of General Chemistry I which will require students to investigate, critically evaluate and effectively communicate about primary sources of scientific research and topics from professional scientific presentations. In addition, students will independently apply the scientific method to research

<p>addition, students will independently apply the scientific method to research a known or unknown scientific question.</p> <p>Chemistry 221 Honors is the first of a three term, 15-credit hour (5 hours/term), chemistry sequence designed to provide a year of general chemistry to science majors. It will meet transfer school requirements for such science majors as: chemistry, physics, chemical engineering, pre-medicine, and other pre-professional programs. The class consists of lecture, recitation and laboratory. The lecture time is used to provide the student with basic chemical concepts and mathematical applications to chemistry. The recitation time is for practicing problem solving in small group settings allowing for greater student-student as well as student-teacher contact and encouraging individual and team development. The laboratory re-enforces concepts presented in lecture and provides the student a hands-on opportunity to explore these.</p> <p>Introduction to chemistry covering measurements, classification and properties of matter, nomenclature, atomic structure and modern atomic theory, periodic table and chemical periodicity, and chemical bonding. Recommended for chemistry and other natural science majors, and pre-professional majors in engineering, medicine and dentistry. Successful completion of high school or college chemistry class with a lab component (e.g. CH 100) in the last 5 years required. Students who have not taken high school chemistry within the last 5 years are STRONGLY encouraged to take CH 100 before CH 221 Honors. Prerequisite: WR 115 and RD 115 or equivalent placement test scores. Prerequisite/concurrent: MTH 111B or MTH 111C AND 3.25 GPA.</p>	<p>a known or unknown scientific question.</p> <p>Chemistry 221 Honors is the first of a three term, 15-credit hour (5 hours/term), chemistry sequence designed to provide a year of general chemistry to science majors. It will meet transfer school requirements for such science majors as: chemistry, physics, chemical engineering, pre-medicine, and other pre-professional programs. The class consists of lecture, recitation and laboratory. The lecture time is used to provide the student with basic chemical concepts and mathematical applications to chemistry. The recitation time is for practicing problem solving in small group settings allowing for greater student-student as well as student-teacher contact and encouraging individual and team development. The laboratory re-enforces concepts presented in lecture and provides the student a hands-on opportunity to explore these.</p> <p>Introduction to chemistry covering measurements, classification and properties of matter, nomenclature, atomic structure and modern atomic theory, periodic table and chemical periodicity, and chemical bonding. Recommended for chemistry and other natural science majors, and pre-professional majors in engineering, medicine and dentistry. Successful completion of high school or college chemistry class with a lab component (e.g. CH 100) in the last 5 years required. Students who have not taken high school chemistry within the last 5 years are STRONGLY encouraged to take CH 100 before CH 221 Honors. Prerequisite: WR 115 and RD 115 or equivalent placement test scores. Prerequisite/concurrent: MTH 111 with a grade of B or better (A preferred). CH 151 with a grade of B or better (A preferred) or Instructor Approval.</p>
Reason for change	Currently banner allows students to enroll in CH221 without completion of prior introductory chemistry courses and with students who do not have a sufficient background in math. As a SAC we feel student success would be greatly enhanced if we required CH151 Preparatory Chemistry for both our 221 (submitted separately) and 221H. We are including "OR Instructor Approval" to allow for students who may have taken preparatory chemistry at other institutions.

LEARNING OUTCOMES: Describe what the student will be able to do “out there” (in their life roles as worker, family member, community citizen, global citizen or lifelong learners), One to six outcomes are recommended See the course outcomes guidelines on the curriculum webpage for more guidance on [writing good outcomes](#).

Current learning outcomes (required information for all course revisions)	New learning outcomes
<p>After completion of this course, students will:</p> <ul style="list-style-type: none"> • apply the fundamental principles of measurement, matter, atomic theory and chemical bonding to subsequent courses in chemistry, biology, physics, geology, engineering and various other related disciplines that depend upon these principles for successful comprehension. • apply the fundamental principles of measurement, matter, atomic theory and chemical bonding to their understanding of themselves and their natural and technological environments. • use mathematical and chemical reasoning skills, both qualitative and quantitative, to solve specific problems encountered in everyday life and professional settings. • use effective collaborative skills when working with other people to solve complex problems and accomplish tasks effectively and timely in everyday life and professional settings. • use an understanding of effective written communication skills to effectively communicate complex scientific and technological ideas, models and conclusions through the generation of informal and formal writings and reports in a scientifically acceptable manner. • Critically evaluate and effectively communicate (verbally and written) about sources of scientific information, including primary 	

literature and topics from professional scientific presentations, to logically decide the bias, strengths and weaknesses of the information concerning the effect of chemistry and chemical concepts on themselves and their environment.	
<ul style="list-style-type: none"> Independently apply the scientific method to research a known or unknown scientific question to become aware of chemistry as a central science as they see connections to biology, physics, and environmental studies. 	
Reason for change	No Change

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following prerequisites: WR 115, RD 115, and MTH 20 or equivalent placement test scores If the SAC wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt out form.			
Current prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
x Prerequisites- WR 115, RD 115 or equivalent placement scores and prerequisite/concurrent: MTH 111.			
<input type="checkbox"/> Placement into: .			
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number:	<input type="checkbox"/> Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
Proposed prerequisites, corequisites and concurrent If you are NOT changing prerequisites or co-requisites DO NOTHING in this area			
X Prerequisites - MTH 111 with a grade of B or better (A preferred). CH 151 with a grade of B or better (A preferred) or Instructor Approval.			
<input type="checkbox"/> Placement into: .			
prefix & number: CH151	x Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con
prefix & number: MTH111	x Prerequisite	<input type="checkbox"/> Corequisite	<input type="checkbox"/> pre/con

Is this course used for related instruction? Please confirm this by reviewing the inventory of related instruction templates .	x yes <input type="checkbox"/> no
If yes. Check two things: 1) Outcomes – if you are changing course outcomes which relate to communication, computation and/or human relations and 2) the hours of student learning. Then this requires you to submit a related instruction in CTE course form at the same time as you submit this course revision form. Visit the comprehensive related instruction website for information and	

guidance.

IMPACT ON OTHER DEPARTMENTS AND CAMPUSES – are there changes being requested that may impact other departments or campuses, such as academic programs that require this course for their program or as a prerequisite for courses or programs?

Please provide details, who was contacted and the resolution.

<input type="checkbox"/> Yes	As this is an optional honors course, it is not a prerequisite in itself. If programs have a prerequisite of 221 the students can take that course in lieu of the honors course.
<input checked="" type="checkbox"/> No	

Implementation term	<input checked="" type="checkbox"/> Next available term after approval
	<input type="checkbox"/> Specify term (if AFTER the next available term)

Allow 4-6 months to complete the approval process before scheduling the course. See the timeline for approval for details. www.pcc.edu/curriculum

Section # 2 Department Review

This proposal has been reviewed at the SAC level and approved for submission

SAC Chair (type name)	Email	Date
Ted Picciotto David Brackett	Ted.picciotto@pcc.edu david.brackett1@pcc.edu	10/22/13
SAC Administrative Liaison (type name)	Email	Date
Dieterich Steinmetz	dsteinmetz@pcc.edu	

This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.