CURRICULUM/GEN ED COMMITTEE
a standing committee of the Education Advisory Committee

Agenda
December 5, 2007
Sylvania CC, Conference Rm B

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

Experimental Courses:

CA 199A – Culinary Theory (TBCC)
CA 199B – Culinary Arts Practicum I (TBCC)
CA 299 – Food and Beverage Cost Control (TBCC)
TE 199A – Industrial Hydraulics 1
TE 199B – Pneumatics 1
TE 199C – Building Commissioning

Course Inactivations:

GD 223 – Graphic Design 6
CS 171 – Assembly Language I
CS 172 – Assembly Language II
CS 271 – Computer Architecture

Old Business:

36. MP 109 – Basic Medical Terminology
New Course

48. ESOL 254 – Level 7 Academic Communications
Course Revision – Title, Description, Requisites

51. ESOL 264 – Level 8 Academic Communication
Course Revision – Description, Requisites, Outcomes

52. ESOL 265 – Level 8 Academic Communication
Course Revision – Description, Outcomes

53. ED 263 – Portfolio Development
Related Instruction

New Business:

85. WLD 290 – Submerged Arc Welding
New Course

86. ED 100 – Introduction to Education
Contact/Credit Hour Change

87. ED 100 – Introduction to Education
Course Revision – Outcomes

88. ED 123 – Instructional Strategies: Reading
Course Revisions – Outcomes

89. ED 124 – Instructional Strategies: Math/Science
Course Revision – Description, Outcomes

90. ED 131 – Applied Learning Theory
Course Revision – Outcomes

91. ED 217 – Classroom Management
Course Revision – Outcomes

92. ED 224 – Foundations of Education
Course Revision – Outcomes

93. ED 263 – Portfolio Development
Course Revision – Outcomes

94. HST 100 – Introduction to History
Course Revision – Description, Requisites

95. ART 271 – Printmaking II
New Course

96. FP 121 – Fire Science I
Course Revision – Title, Description, Outcomes

97. FP 123 – Hazardous Materials Technician
Course Revision – Title, Description, Outcomes

98. FP 9330 – Fire Service Hydraulics
Course Revision – Number, Title, Description, Outcomes

99. FP 214 – Occupational Safety & Health for the Fire Service
New Course

100. CJA 210 – Arrest, Search and Seizure
Course Revision – Description, Outcomes

101. MP 110 – Basic Medical Terminology 2
New Course

102. CIS 244 – Structured Systems Analysis
Course Revision – Title

103. CIS 233B – Int Visual Basic.NET Program
Course Revision – Outcomes

104. ESOL 10 – Level 1 Integrated Skills
Course Revision – Description, Outcomes

105. ESOL 20 – Level 2 Integrated Skills
Course Revision – Description, Outcomes

106. ESOL 30 - Level 3 Integrated Skills
Course Revision – Description, Outcomes

107. ESOL 012 – Beginning Reading and Writing
New Course

108. ESOL 23 – Language Learning Lab
New Course

109. ESOL 32 – High Beginning Reading and Writing
New Course

110. ESOL 33 – EL Civics
New Course

111. ESOL 260 – Level 8 Academic Reading
Course Revision – Outcomes

112. ESOL 262 – Level 8 Academic Writing
Course Revision – Outcomes

113. ESOL 267 – Level 8 Pronunciation
Course Revision – Outcomes

114. BIT 101 – Introduction to Biotechnology
Contact/Credit Hour Change

115. BIT 101 – Introduction to Biotechnology
Course Revision – Title, Description, Requisites, Outcomes

116. BIT 105 – Biotechnology Lab Safety
Contact/Credit Hour Change

117. BIT 105 – Biotechnology Lab Safety
Course Revision – Title, Description, Requisites, Outcomes

118. BIT 107 – Laboratory Mathematics
Contact/Credit Hour Change

119. BIT 107- Laboratory Mathematics
Course Revision – Title, Description, Requisites, Outcomes

120. BIT 109 – Basic Lab Techniques and Instruments
Contact/Credit Hour Change

121. BIT 109 – Basic Lab Techniques and Instruments
Course Revision – Description, Requisites, Outcomes

122. BIT 110 – Bioscience Technology Basics
New Course

123. BIT 225 – Quality Systems in Biotechnology
Course Revision – Number, Title, Description, Outcomes

124. BIT 181 – Exploring Bioscience
New Course

125. BIT 201 – Applied Immunology
Contact/Credit Hour Change

126. BIT 201 – Applied Immunology
Course Revision – Title, Description, Requisites

127. BIT 203 – Recombinant DNA
New Course

128. BIT 205 – Bioseparations I
Contact/Credit Hour Change

129. BIT 205 – Bioseparations I
Course Revision – Title, Description, Requisites, Outcomes

130. BIT 207 – Tissue Culture I
Contact/Credit Hour Change

131. BIT 207 – Tissue Culture I
Course Revision – Title, Description, Requisites, Outcomes

132. BIT 215 – Bioseparations II
Contact/Credit Hour Change

133. BIT 215 – Bioseparations II
Course Revision – Title, Description, Requisites, Outcomes

134. BIT 223 – Techniques in Molecular Biology I
Contact/Credit Hour Change

135. BIT 223 – Techniques in Molecular Biology I
Course Revision – Title, Description, Requisites, Outcomes

136. PS 111- Skills and Issues: Foundations
Course Revision – Title, Descriptions, Outcomes

137. WR 105 – Writing for Scholarships
New Course

Curriculum Request Form
New Course

Course number:	MP 109
Course title:	Basic Medical Terminology
Transcript title:	Basic Medical Terminology
Lecture hours:	2
Load total:	.136
Weekly contact hours:	2
Total credits:	2
Reason for new course:	The current medical terminology course that is taught is four credits. The course covers the medical terminology of all body systems along with diseases, medications and imaging terminology for all the body systems. In addition there are separate lectures covering oncology, psychiatry, radiology and nuclear medicine. The course is not only taught at PCC but is taught through articulation agreements at several of the local high schools and through contractual agreements with local hospitals. Both the high schools and the hospitals have asked for a course that is less intense and fewer credits but prepares employees and students for working in the medical field. After much discussion it was decided to take the existing MP 111 course and break it down into two courses. The first course MP 109 Basic Medical Terminology would cover the medical terminology for the basic body system with scaled down vocabulary for diseases, medications and imaging procedures. It would not cover oncology, psychiatry, radiology and nuclear medicine. A second course would be developed that covers the medical terminology for all the body systems in more detail and includes more terminology on diseases, medications and imaging procedures and would also cover oncology, psychiatry, radiology and nuclear medicine. A student taking both courses would have learned all the material covered in MP 111. At the high schools MP 109 would be taught first and then those students who were going on into college programs would take the second course and be able to articulate both courses into PCC. We have also found that for some students the MP 111 is too much material so once a year we would offer the two course series.
Course description:	Analyze the structure of medical words and apply this to basic

	anatomy, physiology and disease processes of the human body.
Prerequisite(s):	None
Prereq/concurrent:	None
Corequisite(s):	None
Learning outcomes:	1. Have knowledge of basic rules of medical word construction and vocabulary. 2. Have knowledge of the basic medical terminology for the basic body systems. 3. Read and understand medical documentation in medical records and medical reports. 4. Communicate with health care professionals utilizing proper medical terminology.
Course format:	On Campus
Course format:	Online
Other format:	Other Format Selected
Other format:	High schools and health care facilities
Are there similar courses existing:	NO
Required or elective:	Elective
Is there impact on degrees or certificates:	NO
Have other sacs been contacted?:	YES
Is there an increase in costs for library or av dept?:	NO
Implementation term:	Spring
Implementation year:	2007
Contact name:	Susan Williams
Contact e-mail:	slwillia@pcc.edu

Course Content and Outcome Guide for MP 109

Date: 12-November-2007

Posted by: Curriculum Office

Course Number: MP 109

Course Title: Basic Medical Terminology

Lecture hours: 2

Lecture/Lab hours: 0

Lab hours: 0

Special Fee:

Course Description
Covers prefixes, suffixes, root words, abbreviations, conditions, symptoms and procedure terms for the basic body systems. English communication skills necessary.

Intended outcomes for the course
Students who successfully complete this course will be able to:

1. Have knowledge of basic rules of word construction and vocabulary of the body systems.
2. Read and understand basic medical documentation in medical records and medical reports.
3. Communicate with health care professionals utilizing basic medical terminology.

Outcome Assessment Strategies
Student will demonstrate these learning outcomes by these tasks conducted individually and in cooperation with other students.

1. Answer theoretical and application multiple choice questions on information covered in the lecture and reading assignments.
2. Complete a variety of work assignments to demonstrate understanding of basic concepts.

Course Content (Themes, Concepts, Issues and Skills)

1. The goal is to understand a given medical term, give its definition by breaking it into component parts, and identify the body system to which it relates.
2. Understand the basic anatomical structures, terminology, and functions of the musculoskeletal system, circulatory system, respiratory system, urogenital and male reproductive systems, female reproductive system, digestive system,

endocrine system, nervous system, sensory system, integumentary system, and immunology system.

3. Know the basic diseases and pathological conditions commonly encountered in these body systems.
4. Know the basic medications and imaging procedures commonly encountered with these body systems.

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	ESOL 254
Current Course Title:	Level 7 Communications
Current Description:	Review of English consonants and vowels: emphasis on correcting persistent sound problems. Review of intonation, phrasing, and stress patterns. Discussion and listening comprehension, including lecture/note-taking. Public speaking, including prepared speeches of five minutes with written outlines; impromptu speeches. Prerequisite: ESOL placement test; concurrent placement in Level 6 Reading and Writing or higher.
Proposed Description:	Students develop strategies to improve spoken intelligibility, critical thinking, and listening and note taking skills in public speaking with written outlines on informative academic topics. Students review English consonants and vowels, intonation, phrasing, and stress patterns. Prerequisites: ESOL placement test; concurrent placement in ESOL 160 and 162 or higher.
Reason for Description Change:	The change is to more clearly distinguish the ESOL 254 and 264.
Current Learning Outcomes:	Student is able to comprehend and communicate appropriately and be understood in one-on-one, small group, and large group situations.
Proposed Learning Outcomes:	Student comprehends and communicates clearly and appropriately in a variety of academic settings and demonstrates command of American English sound, rhythm, and intonation patterns. Student can be understood most of the time.
Reason for Learning Outcomes Change:	The change is to more clearly distinguish ESOL 254 and 264.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or	No

campus?:

Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	ESOL 264
Current Course Title:	Level 8 Academic Communication
Current Description:	Review of English consonants and vowels: emphasis on correcting persistent sound problems caused by omissions, substitutions, and additions. Review of intonation, phrasing, and stress patterns. Discussion and listening comprehension, including lecture/note-taking. Public speaking, including prepared speeches of five minutes with written outlines; impromptu speeches. Prerequisite: ESOL placement test; concurrent placement into Level 7 Reading and Writing or higher.
Proposed Description:	Students develop strategies to improve spoken intelligibility, critical thinking, and listening and note taking skills in public speaking with written outlines on academic topics, including those requiring argument and persuasion. Students review English consonants and vowels, intonation, phrasing, and stress patterns. Prerequisites: ESOL placement test; OR concurrent placement in ESOL 250 and 252 or higher.
Reason for Description Change:	This change is to distinguish ESOl 264 from ESOL 254.
Current Learning Outcomes:	Student is able to comprehend and communicate clearly and appropriately in one-on-one, small group, and large group situations.
Proposed Learning Outcomes:	Student comprehends and communicates clearly and appropriately in a variety of academic settings, including those which requiring basic argument and persuasion, and demonstrates command of most American English sound, rhythm, and intonation patterns.
Reason for Learning Outcomes Change:	This change is to distinguish ESOl 264 from ESOL 254
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an	No

impact on another dept or campus?:	
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	ESOL 265
Current Course Title:	Level 8 Academic Communication
Current Description:	Develops strategies to improve spoken intelligibility, use critical thinking and listening and note taking skills in public speaking with written outlines on academic topics. Prerequisites: ESOL placement test; concurrent placement in ESOL 250 and 252 or higher.
Proposed Description:	Students develop strategies to improve spoken intelligibility, critical thinking, and listening and note taking skills in public speaking with written outlines on academic topics, including those requiring basic argument and persuasion. Prerequisites: ESOL placement test; OR concurrent placement in ESOL 250 and 252 or higher.
Reason for Description Change:	This course should be different from ESOL 254. It should also be different from ESOL 264 in that it only includes the speaking components, not the pronunciation components.
Current Learning Outcomes:	Student is able to comprehend and communicate clearly and appropriately in one-on-one, small group, and large group situations.
Proposed Learning Outcomes:	Student comprehends and communicates clearly and appropriately in a variety of academic settings, including those which require basic argument and persuasion.
Reason for Learning Outcomes Change:	The purpose for this change is to distinguish ESOL 265 from ESOL 254 and ESOL 267. ESOL 264 is a five-credit course which includes both speaking and pronunciation. ESOL 265 only includes the three-credit speaking component. ESOL 267 is the two-credit pronunciation component. ESOL 265 and 267 are ESOL 264 when combined, and, thus, when combined, will have the same outcomes.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an	No

impact on another dept or campus?:	
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Related Instruction

Current Course Number:	ED 263
Current Course Title:	Portfolio Development
Communication Hours:	55
Content (Activities, Skills, Concepts, etc.):	Direct instruction and study time on reflective writing, clarity, and organization techniques associated with portfolios. Direct instruction and study time on documentation/evidence-gathering regarding professional competencies.
Human Relations Hours:	5
Content (Activities, Skills, Concepts, etc.):	Direct instruction and practice on providing and accepting constructive feedback. Review of human relations elements in the field of education that need documentation in a portfolio.
Contact Name:	Gabe Hunter-Bernstein
Contact Email:	ghunterb@pcc.edu

Curriculum Request Form
New Course

Course Number:	WLD 290
Course Title:	Submerged Arc Welding
Transcript Title:	Submerged Arc Welding
Lec/Lab Hours:	2/40
Weekly Contact Hours:	4
Total Credits:	2
Reason for New Course:	Industry has requested that we teach submerged arc welding.
Course Description:	Develops knowledge and skills with the submerged arc welding process. Department permission required.
Prerequisite(s):	None
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	Intended Outcomes for the course • Function safely in a welding shop environment. • Demonstrate professional work ethics. • Apply math and science concepts to the welding related process. • Operate oxyfuel portable and track cutting systems in accordance with industry standards. • Interpret drawing and symbols to accurately layout a project; prepare and assemble to specified tolerances; and weld joints in accordance to AWS D1.1, Structural Steel Code. • Weld common joint configurations with the SAW process to code quality standards in the flat and horizontal positions.
Course Format:	On Campus

Are there similar courses existing:	NO
Description of existing courses:	
Required or Elective:	Elective
Is there impact on degrees or certificates:	NO
Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	NO
Description of Contact:	This is an industrial welding application. No other department teaches this process
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Spring
Implementation Year:	2008
Contact Name:	Matt Scott
Contact E-mail:	mscott@pcc.edu

Date:	22-SEP-2007
Posted by:	Welding Technology
Course Number:	WLD 290
Course Title:	Submerged Arc Welding
Credit Hours:	2
Lecture hours:	0
Lecture/Lab hours:	40
Lab hours:	0
Special Fee:	$32

Course Description

Develops knowledge and skills with the submerged arc welding process. Department permission required.

Addendum to Course Description

This is a outcome based course utilizing a lecture/lab format. This course includes classroom discussions, videotapes, and lab demonstrations covering technical skills. Course outcomes will include: theoretical concepts, layout, fabrication, welding, oxyfuel cutting, safety and environmental awareness, communication, computations and human relations.

Intended Outcomes for the course

- Function safely in a welding shop environment.
- Demonstrate professional work ethics.
- Apply math and science concepts to the welding related process.
- Operate oxyfuel portable and track cutting systems in accordance with industry standards.
- Interpret drawing and symbols to accurately layout a project; prepare and assemble to specified tolerances; and weld joints in accordance to AWS D1.1, Structural Steel Code.
- Weld common joint configurations with the SAW process to code quality standards in the flat and horizontal positions.

Outcome Assessment Strategies

The student will be assessed on his/her ability to demonstrate the development of course outcomes. The methods of assessment may include one or more of the following: oral or written examinations, quizzes, observation, written assignments, visual inspection techniques, welding tests, safe work habits, task performance and work relations.

Course Content (Themes, Concepts, Issues and Skills)

Function safely in the PCC Welding Shop.

- Understand and practice personal safety by using proper protective gear.
- Understand and practice hand and power tool safety.
- Understand and practice equipment safety for welding and oxy fuel cutting systems.
- Understand and maintain a safe work area.
    - Recognize and report dangerous electrical and air/gas hose connections.
    - Understand and practice fire prevention.
- Access and explain the importance Material Safety Data Sheets (MSDS).

Demonstrate professional work ethics

- Track training hours on time card
- Perform projects in accordance to specifications and procedures
- Follow directions in a positive manner
- Manage time productively
- Respects equipment and others
- Demonstrate skill in problem solving and decision making

Apply math and science concepts to the welding related process.

- Determine steel costs by weight per square foot calculations
- Explain the characteristics of the SAW process as it relates to common electrodes and flux combinations.
- Explain how Heat-Affected Zone (HAZ) Cracking Possible
- Describe mechanical properties of weld metal deposited by SAW.

Operate oxyfuel portable and track cutting systems in accordance with industry standards

- Demonstrate correct setup and shutdown procedures for the hand cutting and track cutting systems
- Perform oxy fuel cutting with guided practice.

Interpret drawing and symbols to accurately layout, prepare and assemble weld joints

- Interpret lines, symbols and verbiage on project drawing
- Layout material per drawing specifications
- Use the oxyfuel cutting process to cut material to specified dimensions.
- Grind material to meet specifications.
- Assemble weld project per specification.

Weld common joints with the submerged arc welding process to code quality standards in the flat and horizontal positions

- Use correct terminology.
    - Define terms used in the SAW process.
- Equipment identification, setup, shut down, and principles of operation for SAW.
    - Power source identification and adjustment.
    - Welding lead, connections, inspection, and use.
    - Electrode and Flux identification, characteristics, and use.
- Know essential variables of SAW by demonstrating the effects of the following variables: travel speed, electrode angle, voltage and wire feed speed.
- Demonstrate correct welding techniques with the SAW.
    - Starting and stopping
    - Overlapping welds
    - Follow a welding procedure
- Demonstrate correct welding techniques in the following joints:
    - Flat Position
        - Groove Joint
    - Horizontal Position
        - T-Joint
- Demonstrate visual examination principles and practices

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	ED 100	
Current Course Title:	Introduction to Education	
	Current	Proposed
Lecture Hours:	4	2
Lec/Lab Hours:		2
Total Contact Hours:	4	4
Proposed Contact Hours:		
Credits:	4	3

Reason for Change: The original ED 200 was 4 units. To accommodate the change of PSY 215 changing from 3 to 4 units, we had to lower units in another class. ED 200 (now 100) is an introductory level course that does not have very demanding outside work, so we decided to lower the units. However, much of the classwork is still important, so we are switching to lecture/lab format to allow for a similar amount of class time as there was in the 4-unit version. Total units required for the certificate remain the same. (Below: the learning outcomes are affected more for other reasons than the unit change as explained in the original switch from ED 200 to 100; also, Degrees and Certificates Committee has already approved this change)

Are outcomes affected?:	YES
Are degrees/certs affected?:	YES
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Impact on SACs:	
Implem. Term:	Summer
Implementation Year,Implem. Year:	2008
Contact Name:	Gabe Hunter-Bernstein

Contact Email: ghunterb@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ED 100
Current Course Title:	Introduction to Education
Current Learning Outcomes:	Students will: * Demonstrate the ability to understand school issues in our society and the roles of instructional assistants in schools. * Demonstrate communication skills in situations relating to students, parents, and professional colleagues. * Demonstrate the ability to use reason, decision-making, and complex problem-solving in school-related situations especially those regarding ethics and confidentiality. * Gather and present pre-employment materials (e.g., resume, cover letter, requests for letters of reference). * Demonstrate the ability to use clerical and recordkeeping skills used in school
Proposed Learning Outcomes:	Students will: * Use an understanding of school issues in our society and the roles of various instructional personnel in schools in order to work effectively in a school setting; * Communicate effectively in situations relating to students, parents, and professional colleagues; * Use reason, decision-making, and complex problem-solving in school-related situations especially those regarding ethics and confidentiality; * Gather and present pre-employment materials (e.g., resume, cover letter, requests for letters of reference); * Use organizational skills appropriate for school settings; * Apply study skills necessary for college success.
Reason for Learning Outcomes Change:	Change outcomes to fit format/purpose requested by PCC as expressed by Curriculum Committee.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	summer
Requested Year:	2008

Contact Name: Gabe Hunter-Bernstein
Contact E-Mail: ghunterb@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ED 123
Current Course Title:	Instructional Strategies: Reading
Current Learning Outcomes:	The course provides basic knowledge of six strands that underlie successful reading and techniques used in K-8 schools to assess, teach and facilitate each of the strands. Strands: 1. Concepts of Print 2. Phonemic Awareness 3. Alphabetic Principle 4. Vocabulary 5. Comprehension 6. Fluency
Proposed Learning Outcomes:	The student will be able to: 1. Apply current research-based strategies in the following six areas to assist K-12 students in learning to read: a. Concepts of Print b. Phonemic Awareness c. Alphabetic Understandings d. Vocabulary e. Comprehension f. Fluency 2. Use current research-based diagnostic procedures to determine appropriate instructional level , monitor progress , and determine effectiveness of instruction in each of the above areas. 3. Select and deliver reading motivation activities
Reason for Learning Outcomes Change:	Update; New format/specifications for outcomes.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008

Curriculum Request Form
Course Revision

CHANGE:	Course Description,Learning Outcomes
Current Course Number:	ED 124
Current Course Title:	Instructional Strategies: Math/Science
Current Description:	Presents strategies for teaching, reinforcing, and assessing basic math concepts by moving in a continuum from concrete to semi-concrete to semi-abstract to abstract. Emphasizes using manipulative to introduce concepts in addition, subtraction, division, fractions, and place value. Covers the use of writing to reinforce and assess math concepts and integration of math concepts into science curriculum.
Proposed Description:	Presents strategies for teaching, reinforcing, and assessing basic math concepts by moving in a continuum from concrete to abstract. Emphasizes using manipulative to introduce concepts in addition, subtraction, division, fractions, and place value. Covers the use of writing to reinforce and assess math concepts and integration of math concepts into science curriculum.
Reason for Description Change:	Remove redundant language
Current Learning Outcomes:	Upon completion of this course learners should be able to do the following beyond the classroom: * Use a variety of strategies to reinforce and assess basic math concepts. * Integrate math concepts into science curriculum. * Demonstrate the ability to use reason, decision making, and complex problem solving skills.
Proposed Learning Outcomes:	The student will be able to: 1. Assess student proficiency in basic math concepts to determine necessary instruction. 2. Select and use a variety of concrete-to-abstract math strategies and materials appropriate to the instructional and developmental needs of the student. 3. Integrate math concepts into science lessons. 4. Use writing as a tool to assess student understanding of math concepts and to assist in instruction.
Reason for Learning Outcomes Change:	Update; New format/specifications for outcomes.

Will this impact other SACs?,Is there an impact on other SACs?:	No
How other SACs may be impacted:	
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Gabe Hunter-Bernstein
Contact E-Mail:	ghunterb@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ED 131
Current Course Title:	Applied Learning Theory
Current Learning Outcomes:	Students will: * Demonstrate ability to apply learning and teaching theory to the tutoring experience. * Modify and develop teaching techniques to use with students. * Prepare and use motivating activities for the students. * Demonstrate various components of standards-based practice. * Assess instructional effectiveness through looking at student work. * Demonstrate the ability to use reason, decision making, and complex problem solving skills.
Proposed Learning Outcomes:	The student will be able to: 1. Apply current research in learning, instruction, and motivation to tutoring and teaching experiences. 2. Modify and develop teaching techniques to meet both individual student needs as well as K-12 curriculum standards. 3. Assess instructional effectiveness through looking at student work.
Reason for Learning Outcomes Change:	Update; New format/specifications for outcomes.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Gabe Hunter-Bernstein
Contact E-Mail:	ghunterb@pcc.edu

Contact Name: Gabe Hunter-Bernstein
Contact E-Mail: ghunterb@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ED 217
Current Course Title:	Classroom Management
Current Learning Outcomes:	Students will: * Describe several approaches to classroom management. * Develop a proactive classroom management plan. * Describe behavior objectively. * Identify behavior management techniques. * Describe and practice diagnostic procedures. * Demonstrate the ability to use reason, decision making, and complex problem solving skills.
Proposed Learning Outcomes:	The student will be able to: 1. Apply understanding of a variety of classroom management approaches in order to participate in the successful implementation of management systems commonly used in schools and classrooms. 2. Develop and implement a proactive classroom management plan to facilitate effective instruction adapted to the individual's work settings. 3. Objectively record and communicate descriptions of behavior. 4. Participate in design/selection and implementation of behavior change plans to manage individual student behaviors.
Reason for Learning Outcomes Change:	Update; New format/specifications for outcomes.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Gabe Hunter-Bernstein

Contact E-Mail: ghunterb@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ED 224
Current Course Title:	Foundations of Education
Current Learning Outcomes:	Students will: * Develop the historical perspective, philosophical concepts, and educational views which should enable them to generate teaching philosophies of their own; * Describe the organization and management of the k-12 education system at a local, state, and national level; * Relate specific educational practices in teaching and organization/management to philosophical theories and practical considerations; * Discuss issues of current and historical relevance to the field of education (e.g., diversity, accountability, standards, assessment, local vs. state vs. national control, funding); * Present evidence of their own background skills and knowledge as they relate to careers in education.
Proposed Learning Outcomes:	Students will be able to: * Use global and historical perspectives, philosophical concepts, and educational views to articulate evolving teaching philosophies of their own; * Use knowledge of the organization and management of the k-12 education system at a local, state, and national level to appropriately access resources; * Relate specific educational practices in teaching and organization/management to philosophical theories and practical considerations in order to engage in professional collaborations; * Connect issues of current and historical relevance

	to the field of education (e.g., diversity, accountability, standards, assessment, local vs. state vs. national control, funding) to professional daily practice.
Reason for Learning Outcomes Change:	To fit format/purpose requested by PCC as expressed by the Curriculum Committee.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
How other Depts/Campuses will be impacted:	
Request Term:	spring
Requested Year:	2008
Contact Name:	Gabe Hunter-Bernstein
Contact E-Mail:	ghunterb@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ED 263
Current Course Title:	Portfolio Development
Current Learning Outcomes:	Students will: * Demonstrate meeting Paraeducator or Library/Media Program competencies through a professional portfolio. * Be able to select, describe, arrange, and display appropriate artifacts to enable a reader of the portfolio to interpret them as intended without assistance. * Be able to prepare an oral presentation of portfolio highlights. * Be able to provide feedback to others for improvement of their portfolios and adjust their own portfolios in response to feedback.
Proposed Learning Outcomes:	Students will be able to: * Use a professional portfolio as a vehicle to provide evidence of career-related competencies; * Select, describe, arrange, and display appropriate artifacts to enable a reader of a portfolio to interpret them as intended without assistance; * Prepare and deliver a professional quality oral presentation; * Provide constructive feedback to colleagues regarding professional communication; * Make appropriate adjustments to professional presentations in response to feedback.
Reason for Learning Outcomes Change:	To fit format/purpose requested by PCC as expressed by the Curriculum Committee.
Will this impact other SACs?,Is there an impact on other SACs?:	No
How other SACs may be impacted:	
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	spring

Requested Year:	2008
Contact Name:	Gabe Hunter-Bernstein
Contact E-Mail:	ghunterb@pcc.edu

Curriculum Request Form
Course Revisions

CHANGE:	Course Description,Requisites
Current Course Number:	HST 100
Current Course Title:	Introduction to History
Current Description:	This course will provide a general introduction to the nature and methods of history. Students will explore how history is reconstructed through the study of various historical sources such as primary documents, secondary accounts, films, posters, art, and more. Prerequisite: Completion of WR 90.
Proposed Description:	
Reason for Description Change:	The SAC voted to raise the prerequisite one level to WR 90 based upon the assessments used in this course.
Current Prerequisites:	WR 80
Proposed Prerequisites:	WR 90
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Loretta Goldy
Contact E-Mail:	lgoldy@pcc.edu

Curriculum Request Form
New Course

Course Number:	ART 271
Course Title:	Printmaking II
Transcript Title:	Printmaking II
Lec/Lab Hours:	6
Weekly Contact Hours:	6
Total Credits:	3
Reason for New Course:	-Strong student interest in building on and advancing from the foundation class, Printmaking I: classes fully enrolled, requests made -An essential component in art foundation classes, before missing from curriculum and now made possible by availability of space. -Achieve consistency within Art curriculum: Drawing, Photography, Painting, and Ceramics all have levels "I" and "II".
Course Description:	A studio experience in Printmaking, the more advanced level in a succession of classes exploring relief printing, monotype, intaglio, and other processes. As with Printmaking I, students will use both direct and indirect methods of imagery development. References the history of the print and the diverse historical and cultural context of the visual arts. Personal critiques of student work are held regularly. Recommended: Printmaking I. Classes may be taken up to three times for credit.
Prerequisite(s):	1 Term of Art 270 (Printmaking I)
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	-Demonstrate the connection between the visual arts and the processes of Printmaking particular to the media it addresses, which include the following processes: Drypoint, etching, softground, sugar lift, relief, monoprint and monotype. -Utilize properites of various Printmaking papers and their interactions with printing inks. -Apply effective techniques for printing and pulling editio and non-edition prints on the printing press. -Demonstrate the ability to print an edition and non-edition print and properly sign and notate prints.

Course Format:	On Campus
Are there similar courses existing:	NO
Description of existing courses:	
Required or Elective:	Elective
Is there impact on degrees or certificates:	NO
Description of impact on deg/cert:	
Is there an impact on another dept or campus?:	NO
Description of impact on dept/campus:	
Have other SACs been contacted?:	NO
Description of Contact:	
Is there an increase in costs for Library or AV Dept?:	NO
Description of Library/AV impact:	
Implementation Term:	Spring
Implementation Year:	2008
Contact Name:	Richie Bellinger
Contact E-mail:	richey.bellinger@pcc.edu

Course Content and Outcome Guide for ART 271

Course Number: ART 271
Course Title: Printmaking II
Credit Hours: 3
Lecture hours: 0
Lecture/Lab hours: 60
Lab hours: 0
Special Fee: $18

Course Description

A studio experience in Printmaking, the more advanced level in a succession of classes exploring relief printing, monotype, intaglio, and other processes. As with Printmaking I, students will use both direct and indirect methods of imagery development. References the history of the print and the diverse historical and cultural context of the visual arts. Personal critiques of student work are held regularly. Recommended: Printmaking I. May be taken three times for credit.

Addendum to Course Description

Intended Outcomes for the course

1. Demonstrate the connection between the visual arts and the processes of Printmaking particular to the media addressed, which include the following processes: Monotype/Monoprint, Etching, Softground, Sugar Lift, and Relief Printing.
2. Utilize properties of various printing papers and their interactions with printing inks.
3. Apply effective techniques for printing and pulling edition and non-edition prints on a printing press.
4. Demonstrate ability to edition and properly sign and notate a print.

Course Activities and Design

Outcome Assessment Strategies

Students are expected to:

1. actively participate in class discussions, critiques and projects
2. complete and present individual assignments for critique
3. demonstrate sound technique in printing and studio habits
4. complete all homework on time
5. prepare a portfolio for presentation

Course Content (Themes, Concepts, Issues and Skills)

1. visual awareness and ability to see.
2. methodologies for designing and creating a print in media which may include monotype, relief print and intaglio.
3. challenges to visualization inherent in printmaking.
4. language of printmaking and the qualities that distinguish it from other graphic media.
5. printmaking in history.
6. options and possibilities for original work.
7. evaluating prints.
8. safety.
9. environmental concerns related to proper disposal of waste.
10. non-traditional media and combined techniques (e.g., collotype, collage, hybrid prints, digital imagery).

Skills and Methodologies

1. monotype**:** effectively use ink, rollers (brayers) and subtractive tools; use a brush and ink and other printmaking tools for the application of ink; explore multiple passes with roller and multiple passes with the plate.

2. relief: demonstrate various techniques for transferring drawings to the printing surface; become familiar with the different qualities of relief printing surfaces (linoleum, hard and soft woods, long and endgrains); exercise safe and effective use of carving tools (knives, gouges, etc.) and maintaining of tools; successfully demonstrate various relief print techniques such as reduction, multiple block prints, etc.

3. intaglio: demonstrate sound techniques for dry or non-acid intaglio processes such as drypoint and engraving; properly prepare plate for etching (beveling, filing, coating); demonstrate sound procedures for effective biting, heating, inking, wiping and pulling of plates; explore use of other intaglio methods such as softground, aquatint, etc.

4. Demonstrate ability to successfully ink a plate: (tack vs. length); roller choices and techniques for multiple layering.

5. Investigate process and alternative solutions through other print states or reworked proofs.

6. Demonstrate sound printmaking techniques: wiping, carving, registration, general presentation and notation.

7. Understand how to select the most effective presentation for a particular image.

8. Demonstrate familiarity with historical styles by comparing prints to those of other periods.

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Learning Outcomes
Current Course Number:	FP 121
Current Course Title:	Fire Science I
Proposed Course Title:	Fire Behavior and Combustion
Proposed Transcript Title:	Fire Behavior and Combustion
Reason for Title Change:	Bring in line with National curriculum standard
Current Description:	Studies characteristics and behavior of fire, fundamentals of physical laws and chemical reactions occurring in fire and fire suppression. Analyzes factors contributing to fire - its cause, rate of burning, heat generation and travel, by-products of combustion, and its confinement, control, and extinguishment.
Proposed Description:	Course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. There will be an emphasis on compartment fire behavior.
Reason for Description Change:	Bring in line with National curriculum standard.
Current Learning Outcomes:	None
Proposed Learning Outcomes:	Students will meet National Fire Protection Association (NFPA) 1001: Fire Fighter standard for requisite knowledge of fire combustion and behavior. Students will also meet the Oregon Department of Public Safety Standards & Training (DPSST) requirement for "Science" as applied to NFPA 1021 Fire Officer I stadard.
Reason for Learning Outcomes Change:	To create a clear understanding learning outcomes.
Current Prerequisites:	Math Competency
Proposed Prerequisites:	Math Competency
Will this impact other SACs?,Is there an impact on other SACs?:	No

Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Ed Lindsey
Contact E-Mail:	elindsey@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Learning Outcomes
Current Course Number:	FP 123
Proposed Course Number:	FP 123
Current Course Title:	Hazardous Materials Technician
Proposed Course Title:	Hazardous Materials Awareness and Operations
Proposed Transcript Title:	Haz Mat Awareness\Operations
Reason for Title Change:	To reflect current National Fire Protection Association (NFPA) 472 Standard.
Current Description:	This course is designed to prepare individuals to safely respond to hazardous materials emergencies. Individuals will learn to analyze an incident, detect the presence of hazardous materials, survey the scene, collect hazard information from the DOT Emergency Response Guidebook, implement action consistent with standard operating procedures, initiate protective actions and initiate the notification process. Individuals will learn to respond to hazardous materials incidents to safely provide protection of life, property and the environment.
Proposed Description:	Designed to prepare individuals to safely respond to hazardous materials emergencies. Individuals will learn to analyze an incident; detect the presence of hazardous materials; survey the scene; collect hazard information from the DOT Emergency Response Guidebook; implement actions consistent with standard operating procedures; initiate protective actions and initiate the notification process.
Reason for Description Change:	To reflect current National Fire Protection Association (NFPA) 472 Standard.
Current Learning Outcomes:	None
Proposed Learning Outcomes:	Students complete all training and education requirements for Hazardous Materials Awareness and Operstions level certification, per National Fire Protection Association (NFPA) Standard 472 and State certification requirements per Oregon Department of Public Safety Standards and

	Training(DPSST).
Reason for Learning Outcomes Change:	Reflect current standard.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2007
Contact Name:	Ed Lindsey
Contact E-Mail:	elindsey@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Number,Course Title,Course Description,Learning Outcomes
Current Course Number:	FP 9330
Proposed Course Number:	FP 200
Current Course Title:	Fire Service Hydraulics
Proposed Course Title:	Fire Service Hydraulics & Water Supply
Proposed Transcript Title:	Fire Serv. Hyd. & Water Sup.
Reason for Title Change:	Update to National Standard
Current Description:	Covers various fire apparatus used in the fire service, the construction of fire pumps, and the utilization of this equipment. Firegvaljean1789 round hydraulics and other calculations are studied.
Proposed Description:	Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Math Competency recommended.
Reason for Description Change:	Update to National Standard.
Current Learning Outcomes:	1.0 Water The goal is to explore the chemical properties of water. 1.1.1 General characteristics 1.1.2 Pressure in fluids: Six principles of pressure in fluids Static, residual and flow pressures Definitions of hydrostatics, hydrodynamics and dydrokinetics 1.1.3 Basic chemistry of firefighting 1.2.0 Formula work involving volumes of various shaped tanks or containers as applied to the fire protection field. 1.2.1 Define volume formulas for:

Rectangular tanks
Tank with uniformly sloping bottom
Cylinders
Spheres
Hemi-spheres
Squares, cubes
1.2.2 Proportion applied to circles

1.2.3 Rule of thumb techniques for quick calculation

2.0 Velocity

The goal is to study velocity and the theory and formulas.

2.1.0 Define velocity

2.1.1 Theory and formulas of velocity

formula for velocity were height is known
formula for velocity where pressure is known
2.1.2 Equation for horizontal reach

2.1.3 Equation for vertical reach

2.1.4 Origin and deviation of various velocity equations

2.1.5 Fireground rules for velocity calculations

2.2.0 Define discharge

2.2.1 Nozzle discharge, use of co-efficients

2.2.2 Open-butt discharge and use of coefficients:

hydrant flows
2.2.3 Measurement of spray and type nozzle discharge

2.2.4 Nozzle reactions

2.2.5 Define master streams

2.3.0 Define friction loss

2.3.1 Friction loss equations (fire hose) in text

2.3.2 Hydraulic gradient

2.3.3 In fire hose as influenced by:

hose size
hose construction
relationship of hose size and coupling
parallel hose lines
2.3.4 In fire protection system water supply connections

2.3.5 In fire stream devices

2.3.6 Fireground pump chart

2.4.0 Define equivalent pepe method:

2.4.1 As applied to differnet sizes of fire hose

2.4.2 As applied to siamesed hose lines

2.4.3 Proportion applied to equivalent nozzle sizes

2.5.0 Hydraulic gradient in flow problems:

2.5.1 As applied to fire ground dydraulics

2.5.2 As applied to a municipal water system

2.5.3 Reducing loss in flow systems

2.6.0 Study nozzle and engine pressure equations

2.6.1 Computing for value fo K for nozzle size

2.6.2 Uses in pre-fire plannin and training

2.6.3 Application of hydraulic gradient for demonstration

2.6.4 Multiple layouts

2.7.0 Examine solution fo relay problems

2.7.1 Governing principles

2.7.2 Use of hydraulic gradient in demonstrating relay pumping solutions

2.7.3 Pumpers in series

2.7.4 Drafting

flexibility of the stretch
2.7.5 Two pumpers at equal pressures delivering through equal length parallel line

2.7.6 Two pumpers at equal pressures delivering through unequal parellel lines

2.7.7 Two pumpers at equal pressures delivering through equal parallel lines

2.7.8 Two pumpers at unequal pressures delivering through unequal parallel lines

2.7.9 Demonstrate value in pre-fire planning

2.7.10 Tactics, size up, fire streams

3.0 Theory and Practice

The goal is to mock up a hands on scenario which will give students a chance to participate.

3.1.0 Combining theory and practice

3.1.1 Actual or simulated fire ground conditions in which students apply information learned in previous classwork.

3.1.2 "Rule of thumb calculations for fireground use.

3.1.3 Positioning of apparatus as may be related to fireground dydraulics.

3.2.0 Review of material

3.3.0 Use and construction of pitot gauge

Proposed Learning Outcomes:

Apply mathematic calculations and the principles of physics to the movement of water in fire suppression activities.

Use an understanding of the design principles of fire service pumping apparatus to determine the volume and pressure required to flow appropriate amounts of water through handlines, appliances and nozzles to provide an effective water stream.

Analyze community fire flow demand criteria.

Demonstrate, through problem solving, a thorough understanding of the principles of forces that affect water at rest and in motion.

Reason for Learning Outcomes Change:	Update to National Standard.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	no
Request Term:	fall
Requested Year:	2008
Contact Name:	Ed Lindsey
Contact E-Mail:	elindsey@pcc.edu

Curriculum Request Form
New Course

Course Number:	FP 214
Course Title:	Occupational Safety & Health for the Fire Service
Transcript Title:	Occ. Safety & Health for Fire
Lecture Hours:	30
Weekly Contact Hours:	3
Total Credits:	3
Reason for New Course:	To incorporate Nationally recognized curriculum into PCC FP degree.
Course Description:	Introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue.
Prerequisite(s):	None
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	Students will complete all training and education required to establish a fire department occupational safety and health program in an emergency service organization per National Fire Protection Association (NFPA) Standard 1500,
Course Format:	On Campus
Course Format:	Online
Are there similar courses existing:	NO
Description of existing courses:	I have not found any.

Required or Elective:	Required
Is there impact on degrees or certificates:	YES
Description of impact on deg/cert:	This course is intended to be added as a requirement to the AAS Degree in Fire Protection Technology.
Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	NO
Description of Contact:	I have not found any like courses.
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Fall
Implementation Year:	2008
Contact Name:	Ed Lindsey
Contact E-mail:	elindsey@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	CJA 210
Current Course Title:	Arrest, Search and Seizure
Current Description:	Covers issues and procedures regarding stops, frisks, and searches and seizures of property and persons. Explores the Fourth Amendment of the United States Constitution, Article 1 section 9 of the Oregon Constitution and Oregon statutory law. Prerequisites: CJA 100, 111; WR 121.
Proposed Description:	Course covers issues and procedures regarding stops, frisks, searches and seizures of property and persons. Discussed are the Fourth Amendment of the United States Constitution and Article 1, Section 9 of the Oregon State Constitution. Topics include stops, arrests, privacy issues, search warrants and warrantless searches and seizures. Reviewed are fact situations from case law, current events and statutory law from the Criminal Code of Oregon. Prerequisites: CJA 100, CJA 111 and WR 121 or instructor permission.
Reason for Description Change:	Clarify the course description.
Current Learning Outcomes:	The student will be able to: Identify the elements of probable cause; particularly as related to arrests and searches. Discuss the meaning of the Fourth Amendment of the United States Constitution. Compare and distinguish between stops, arrests, frisks and searches. Evaluate fact scenarios in order to determine the existence of reasonable suspicion, probable cause, privacy issues and whether a warrant exception applies. Discuss the meaning of the “Exclusionary Rule” as it relates to the “Fruit of the Poisonous Tree” doctrine.
Proposed Learning Outcomes:	Students who have successfully completed this course will be able to: �Evaluate fact scenarios in order to determine the existence of reasonable suspicion, probable cause, privacy issues and

	whether a warrant exception applies. �Practice in a criminal justice field with knowledge of arrest statutes and related case law. �Conduct searches and seizures with an understanding of legal principles.
Reason for Learning Outcomes Change:	Bring outcomes up to date.
Current Prerequisites:	CJA 100, CJA 111 and WR 121
Proposed Prerequisites:	Same
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Jim Parks
Contact E-Mail:	jparks@pcc.edu

Curriculum Request Form
New Course

Course Number:	MP 110
Course Title:	Medical Terminology 2
Transcript Title:	Medical Terminology 2
Lecture Hours:	2
Load Total:	.136
Weekly Contact Hours:	2
Total Credits:	2
Reason for New Course:	The current medical terminology course that is taught is four credits. The course covers the medical terminology of all body systems along with diseases, medications and imaging terminology for all the body systems. In addition there are separate lectures covering oncology, psychiatry, radiology and nuclear medicine. The course is not only taught at PCC but is taught through articulation agreements at several of the local high schools and through contractual agreements with local hospitals. Both the high schools and the hospitals have asked for a course that is less intense and fewer credits but prepares employees and students for work in the medical field. After much discussion it was decided to take the existing MP 111 course and break it down into two courses. The first course MP 109 Basic Medical Terminology would cover the medical terminology for the basic body systems with scaled down vocabulary for diseases, medications and imaging procedures. It would not cover oncology, psychiatry, radiology and nuclear medicine. A second course, MP 110 Medical Terminology 2 would expand on the medical terminology , diseases, medications and imaging procedures taught in MP 109 as well as cover oncology psychiatry, radiology and nuclear medicine. A student taking both courses would have learned all the material covered in MP 111. At the high schools MP 109 would be taught first and then those students who were going on into college programs would take the second course and be able to articulate both courses into PCC. We have also found that for some PCC students the MP 111 is too much material so once a year we would offer the two course series.
Course Description:	Reviews in depth the basic body systems and medical terminology taught in MP 109. Expands knowledge to include prefixes, suffixes, root words, abbreviations, conditions, symptoms and procedure terms used in oncology, psychiatry, radiology and nuclear medicine. Engligh communications skills necessary.

Prerequisite(s):	MP 109
Learning Outcomes:	1. Have knowledge of rules of medical word construction and vocabulary. 2. Have knowledge of medical terminology for the basic body systems as well as the medical specialties of Oncology. Psychiatry, Radiology and nuclear medicine. 3. Read and understand medical documentation in medical records and medical reports. 4. Communicate with health care professionals utilizing proper medical terminology.
Course Format:	On Campus
Course Format:	Online
Other Format:	
Are there similar courses existing:	NO
Required or Elective:	Elective
Is there impact on degrees or certificates:	NO
Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	YES
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Spring
Implementation Year:	2008

Course Content and Outcome Guide for MP 110

Date: 12-November-2007

Posted by: Curriculum Office

Course Number: MP 110

Course Title: Basic Medical Terminology 2

Lecture hours: 2

Lecture/Lab hours: 0

Lab hours: 0

Special Fee:

Course Description
Reviews basic body systems and medical terminology taught in MP 109. Expands knowledge to include prefixes, suffixes, root words, abbreviations, conditions, symptoms and procedure terms used in oncology, psychiatry, radiology and nuclear medicine. English communication skills necessary.

Intended outcomes for the course
Students who successfully complete this course will be able to:

1. Have knowledge of rules of word construction and vocabulary of the body systems.
2. Read and understand medical documentation in medical records and medical reports.
3. Communicate with health care professionals utilizing medical terminology.

Outcome Assessment Strategies
Student will demonstrate these learning outcomes by these tasks conducted individually and in cooperation with other students.

1. Answer theoretical and application multiple choice questions on information covered in the lecture and reading assignments.
2. Complete a variety of work assignments to demonstrate understanding of basic concepts.

Course Content (Themes, Concepts, Issues and Skills)

1. The goal is to understand a given medical term, give its definition by breaking it into component parts, and identify the body system to which it relates.

2. Understand the basic anatomical structures, terminology, and functions of the major body systems, as well as the medical specialties of oncology, psychiatry, radiology and nuclear medicine.
3. Know the basic diseases and pathological conditions commonly encountered in these body systems.
4. Know the basic medications and imaging procedures commonly encountered with these body systems.

Curriculum Request Form
Course Revision

CHANGE:	Course Title
Current Course Number:	CIS244
Proposed Course Number:	
Current Course Title:	Structured Systems Analysis
Proposed Course Title:	Systems Analysis
Proposed Transcript Title:	Systems Analysis
Reason for Title Change:	This course is teaching object oriented systems analysis as well as structured systems analysis. This change just reflects what is being taught.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	spring
Requested Year:	2008
Contact Name:	Dan Dougherty
Contact E-Mail:	ddougher@pcc.edu

Curriculum Request Form
Course Revision

CHANGE: Learning Outcomes

Current Course Number: CIS 233b

Current Course Title: Int Visual Basic.NET Program.

Current Learning Outcomes:

- Create and execute an advanced program in Visual Basic.
- Write a Visual Basic program using ActiveX Data Objects (ADO) to navigate and update a database.
- Write a program to read and write to a random access file.
- Use existing sorting algorithms.
- Develop searching algorithms and demonstrate their use in business applications.
- Write user defined data structures
- Write and implement a class module
- Design a business application using N-tier architecture
- Code to find minimum and maximum values
- Implement a control array
- Use one and two dimensional arrays
- Trap and handle run time errors with error handling procedures.
- Write a test plan for a project

Proposed Learning Outcomes:

Expected Student Outcomes
? Create and execute advanced programs in Visual Basic.NET
? Write a Visual Basic program using ActiveX Data Objects (ADO.NET) to navigate and update a database.
? Write a program to read and write to streams
? Write and implement a class module using properties, methods, events and inheritance
? Use collections
? Use one and two dimensional arrays
? Handle exceptions
? Write a test plan for a project
? Pass information in a multiform environment
Course Activities and Design
This course will be presented by means of lectures and labs.

Reason for Learning Outcomes Change:	To correct a bookkeeping error on the Curriculum Office's part that posted an old CCOG rather than one that had been approved by the SAC almost 2 years ago.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Dan Dougherty
Contact E-Mail:	ddougher@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	ESOL 10
Current Course Title:	Level 1 Integrated Skills
Current Description:	The first of four levels of English as a second language. Students develop basic English communications, Reading, Writing, Speaking and Listening skills are taught in the context of communicating in adult life roles as family and community members, workers, citizens and lifelong learners. A language placement test is required for enrollment.
Proposed Description:	This is the first of eight levels of English for Speakers of Other Languages. Students develop beginning English reading, writing, speaking and listening skills in the context of communicating in adult life roles as family and community members, workers, citizens and lifelong learners. A language placement test is required for enrollment.
Reason for Description Change:	The change reflects the merger of ESL and ENNL into ESOL, which is now an eight-level program.
Current Learning Outcomes:	Upon completing ESL A - Integrated Skills students will be able to use the English language to communicate as related to roles as family members, community members, workers, lifelong learners, and citizens. They will be able to use the English language to communicate basic needs to do the following: • Convey personal information orally and in writing • Complete simple forms • Use a limited number of expressions and phrases to ask and answer basic questions and make simple statements in role contexts (orally and in writing) • Give and follow simple oral and written directions • Ask for clarification • Recognize and use letters, numbers, and common sight words • Read simple printed information and common signs and symbols
Proposed Learning Outcomes:	Student uses the English language to communicate in written and spoken form at a beginning level as related to roles as

	family members, community members, workers, lifelong learners, and citizens. Student reads simple printed information.
Reason for Learning Outcomes Change:	The change is intended to present the outcomes in simpler form.
Current Prerequisites:	A language placement test is required for enrollment
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	ESOL 20
Current Course Title:	Level 2 Integrated Skills
Current Description:	The second of four levels of English as a second language. Students develop basic English communication. Reading, Writing, Speaking and Listening skills are taught in the context of communicating in adult life roles as family and community members, workers, citizens and lifelong learners. A language placement test is required for enrollment.
Proposed Description:	This is the second of eight levels of English for Speakers of Other Languages. Students develop high-beginning English communication skills. Reading, Writing, Speaking and Listening skills are taught in the context of communicating in adult life roles as family and community members, workers, citizens and lifelong learners. A language placement test is required for enrollment.
Reason for Description Change:	The change reflects the merger of ESL and ENNL into ESOL, which is an eight-level program.
Current Learning Outcomes:	Upon completing ESL B - Integrated Skills students will be able to use the English language to communicate as related to roles as family members, community members, workers, lifelong learners, and citizens. They will be able to initiate and participate in conversations on common subjects and to satisfy basic needs, ask for clarification and the following: • Interact in a group to evaluate and solve a problem • Read and interpret simple materials on familiar topics • Write a short paragraph and notes using accurate basic grammatical structures and spelling • Use telephone technology to communicate
Proposed Learning Outcomes:	Student uses the English language to communicate in written and spoken form at a high-beginning level as related to roles as family members, community members, workers, lifelong learners, and citizens. Student reads high-beginning printed materials.

Reason for Learning Outcomes Change:	The change is to simplify the outcome.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Learning Outcomes
Current Course Number:	ESOL 30
Current Course Title:	Level 3 Integrated Skills
Current Description:	The third of four levels of English as a second language. Students develop low intermediate English communication. Reading, Writing, Speaking and Listening skills are taught in the context of communicating in adult life roles as family and community members, workers, citizens and lifelong learners. A language placement test is required for enrollment.
Proposed Description:	This is the third of eight levels of English for Speakers of Other Languages. Students develop low-intermediate English communication skills. Reading, Writing, Speaking and Listening skills are taught in the context of communicating in adult life roles as family and community members, workers, citizens and lifelong learners. A language placement test is required for enrollment.
Reason for Description Change:	The change reflects the merger from ESL and ENNL to ESOL, which is an eight-level program.
Current Learning Outcomes:	Upon completing ESL C - Integrated Skills students will be able to use the English language to communicate as related to roles as family members, community members, workers, lifelong learners, and citizens. They will be able to do the following: • Speak with comprehensible pronunciation in a variety of familiar situations • Participate in group work and activities in the English-speaking community with intermediate conversation skills; ask for clarification • Use English to evaluate and solve a problem • Read and comprehend easy short fiction and nonfiction on familiar subjects (includes graphs, charts, maps, etc.) • Write basic paragraphs and letters using grammatical and structural accuracy • Use telephone and computer technology to communicate and access information

Proposed Learning Outcomes:	Student uses the English language to communicate in written and spoken form at a low-intermediate level as related to roles as family members, community members, workers, lifelong learners, and citizens. Student reads simple printed information.
Reason for Learning Outcomes Change:	The change simplifies the outcomes.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
New Course

Course Number:	ESOL 012
Course Title:	ESOL Beginning Reading and Writing
Transcript Title:	ESOL Beginning Literacy
Lecture Hours:	3
Weekly Contact Hours:	3
Total Credits:	0
Reason for New Course:	This course is the former ESL 0725, which was unintentionally inactivated.
Course Description:	Non-native English speaking students develop beginning literacy skills. Reading and writing are taught in the context of communicating in adult life roles.
Prerequisite(s):	Placement in ESOL 10 or ESOL 20 or instructor permission based on an in-class writing assessment that demonstrates writing skills at the pre- or basic sentence level in English.
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	Beginning Reading and Writing students read and write English at a basic level. Student uses simple written English to communicate as related to roles as family member, community member, worker, lifelong learner and citizen.
Course Format:	On Campus
Are there similar courses existing:	NO
Required or Elective:	Elective
Is there impact on degrees or certificates:	NO
Is there an impact on	NO

another dept or campus?:	
Have other SACs been contacted?:	NO
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Winter
Implementation Year:	2008
Contact Name:	Roxanne Hill
Contact E-mail:	rhill@pcc.edu

Course Content & Outcomes Guide

Date: October 22, 2007

Course Number: 12

Course Title: ESOL Beginning Reading and Writing

Credit Hours: 3 non-credit contact hours per week

Number of weeks: 11 or 12 weeks

Special Fee: $15

Course Description for Publication:

Non-native English speaking students develop beginning literacy skills. Reading and writing and reading are taught in the context of communicating in adult life roles.

Prerequisite:

Placement in ESOL 10 or ESOL 20 or instructor permission based on an in-class writing assessment that demonstrates writing skills at the pre- or basic sentence level in English.

Learning Outcomes:

Beginning Reading and Writing students read and write English at a basic level. Student uses written English to communicate as related to roles as family member, community member, worker, lifelong learner and citizen.

Course Activities & Design:

Oral Communications

- Answer Wh-questions using prompts such as pictures
- Exchange information in groups
- Dictate numbers, letters and words to others
- Ask for clarification: use phrases and ask questions to express lack of understanding

Reading

- Use reading strategies (skim, scan, context, prediction, sequencing, categorizing)
- Recognize words from personal information forms
- Recognize and respond correctly to common sight words
- Recognize common signs and symbols

- Read simple sentences and questions
- Read clocks, calendars, simplified maps and schedules

Written Communication

- Alphabetize
- Copy or write individual letters, numbers and sight words dictated by another
- Write numbers in context
- Write legibly (form letters, left to right orientation, word spacing, staying on the line)
- Write personal information in correct location on simple forms
- Write sight words, simple sentences and phrases using basic grammar (the verb "be" in present tense, simple present, yes/no and Wh-questions) in context
- Use punctuation (period, question mark, and apostrophes for contractions)

Phonics

- Recognize and apply sound - symbol correspondence

Technology

- Use writing tools (pen, pencil, paper, etc.)
- Use mouse, keyboard
- Scroll, click, double click

Outcome Assessment Strategies:

Performance tasks used at this level may include:

- Complete a written form supplying basic personal information.
- Interview a classmate asking personal information questions and record information on a form or matrix. Write simple sentences based on the information.
- Read a simplified illustrate short story and indicate "yes" or "no" to associated comprehension questions.
- Put simple sentences or a story (in pictures, numbers, and/or words) in sequence.
- On a simplified map, draw the route from point A to point B, following written direction
- Create a collage which represents a topic or phonic sound (e.g. words that begin with the hard /g/ sound)

Course Content:

<u>Concepts Themes and Issues:</u>

- Written language
- Language structure

- Cultural awareness
- Classroom expectations
- Pair/Group work
- Personal information
- Roles
- Empowerment
- Personal identity
- Critical Thinking
- Self-evaluation
- Numeracy
- Contextual awareness
- Communicative Competence
- Grammatical competence
- Negotiate meaning
- Linking written words or signs with abstract concepts
- Phonics, sound - symbol correspondence
- Sight word reading and writing
- Left-right orientation
- Top down
- Listening comprehension
- Communication
- Literacy
- Self-confidence
- US education style
- Multicultural classroom
- Studying
- Identification of self as part of a literate community
- Technology

Assessment outcomes include the ability to:

- Complete personal information portion of simple forms
- Read simple printed information and common signs and symbols
- Follow simple written directions
- Recognize and write letters, common sight words and numbers (i.e. time, money, phone numbers, ID numbers, etc.) to meet daily needs.
- Convey personal information in writing
- Use a limited number of expressions to write answers and make simple statements in role contexts
- Ask for clarification

Curriculum Request Form
New Course

Course Number:	ESOL 023
Course Title:	ESOL Language Learning Lab
Transcript Title:	ESOL Language Learning Lab
Lab Hours:	open
Lec/Lab Hours:	
Load Total:	Open
Weekly Contact Hours:	Open
Total Credits:	0.00
Reason for New Course:	This is the former ESL 0749 which unintentionally became inactive.
Course Description:	The ESOL Language Lab provides ESOL students with self-paced, individualized learning. The primary focus in the lab is on grammar, vocabulary, reading, writing, listening and speaking skills related to the eight levels of the ESOL program curriculum. Multi-media/computer assisted instruction in addition to textbook and workbook assignments are used. Learning activities may be supplemented with one-on-one or small group tutoring.
Prerequisite(s):	Placement in ESOL program or Volunteer Literacy Tutoring
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	Student uses technology to improve English reading, writing, listening, speaking, grammar, and vocabulary skills.
Course Format:	On Campus
Are there similar courses existing:	NO
Required or Elective:	Elective
Is there impact on degrees or certificates:	NO

Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	NO
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Winter
Implementation Year:	2008
Contact Name:	Roxanne Hill
Contact E-mail:	rhill@pcc.edu

Course Content and Outcomes Guide

Date: October 22, 2007

Course Number: 023

Course Title: ESOL Language Learning Lab

Credit Hours: Open/Variable non-credit hours

Number of Weeks: 5 to 12

Course Description for Publication

The ESOL Language Lab provides ESOL students with self-paced, individualized learning. The primary focus in the lab is on grammar, vocabulary, reading, writing, listening and speaking skills related to the eight levels of the ESOL program curriculum. Multi-media/computer assisted instruction in addition to textbook and workbook assignments are used. Learning activities may be supplemented with one-on-one or small group tutoring.

Pre-requisite: Placement in ESOL program or Volunteer Literacy Tutoring

Learning Outcome

Student uses technology to improve English reading, writing, listening, speaking, grammar, and vocabulary skills. Students receive supplemental support for the ESOL curriculum from additional opportunities for student skill practice.

English Language Communication Skills

- Practice speaking skills with language software, audio/video technology and/or face to face interaction.
- Practice listening skills using interactive language software, audio/video delivery technology.
- Practice reading skills using textbooks, educational software programs, or selected interactive websites to develop comprehension skills.
- Practice grammar skills using on-line activity skill banks and educational software.
- Practice writing skills by using documents in word processing software applications, via on-line tutorials, and through e-mail communications.
- Use reference materials found in lab to enhance skills, such as using Internet search engines to find information, and edit with spell check and grammar check in word processing program.
- Describe situations related to ESOL curriculum themes: family member, community member, worker, citizen, and lifelong learner

Technology Skills

- Use basic computer programs, both language and technology enhancing
- Use keyboarding software to increase keyboarding skills
- Use educational software or web-based language exercises to increase English language skills
- Gain access to web sites for communication and skill building purposes
- Create, edit, save, print, and close simple text documents using word processing software
- Use e-mail to communicate with others, both locally and globally

Performance tasks used in this course may include:

- Demonstrate ability to use interactive listening activities such as responding orally and in writing to recorded speech via video/audio delivered technology, interactive language software, and communicate orally with tutor, instructor, and other students
- Demonstrate reading skills using assessment through textbooks, websites, and interactive technology-based activities
- Demonstrate oral language skills by responding to text with oral or written responses to reading material
- Demonstrate basic knowledge of computer terminology, operation and programs
- Demonstrate keyboarding skills using assessment tools both within the program and via the Internet
- Write and present reports via computer mediated presentation programs

Themes. Concepts and Issues:

- Technology enhancement
- Technology empowerment/skill gain
- Goal Setting
- Self-directed learning
- Learning strategies
- Problem solving
- Grammatical competence
- Listening practice
- Skills to increase employment gain
- Global community
- Technology
- Personal Advocacy

Curriculum Request Form
New Course

Course Number:	ESOL 032
Course Title:	ESOL High Beginning Reading and Writing
Transcript Title:	ESOL High Beginning Literacy
Lecture Hours:	3
Weekly Contact Hours:	3
Total Credits:	0
Reason for New Course:	This course is intended to reactivate ESL 0726, which unintentionally became inactive.
Course Description:	Non-native English speaking students develop high beginning literacy skills. Reading and writing are taught in the context of communicating in adult life roles.
Prerequisite(s):	Placement in ESOL 30 or instructor permission based on an in-class writing assessment that demonstrates ability to write simple sentences in English but reflects a need to develop ability to write paragraphs.
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	Student writes sentences and short paragraphs using comprehensible basic grammatical structures and spelling. Student expresses basic ideas in notes and short written communication such as job applications and accident reports. Student communicates in written English as related to roles as family member, community member, worker, lifelong learner and citizen. Student reads at a basic level and comprehends simple material on familiar topics.
Course Format:	On Campus
Are there similar courses existing:	NO
Required or Elective:	Elective
Is there impact on	NO

degrees or certificates:	
Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	NO
Description of Contact:	
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Winter
Implementation Year:	2008
Contact Name:	Roxanne Hill
Contact E-mail:	rhill@pcc.edu

Course Content & Outcomes Guide

Date: October 22, 2007

Course Number: ESOL 32

Course Title: ESOL High Beginning Reading and Writing

Credit Hours: 3 non-credit contact hours per week

Number of weeks: 11 or 12 weeks

Special Fee: $15

Course Description for Publication:

Non-native English speaking students develop high beginning literacy skills. Reading and writing are taught in the context of communicating in adult life roles.

Prerequisite:

Placement in ESOL 30 or instructor permission based on an in-class writing assessment that demonstrates ability to write simple sentences in English but reflects a need to develop ability to write paragraphs.

Learning Outcomes:

Student writes sentences and short paragraphs using comprehensible basic grammatical structures and spelling. Student expresses basic ideas in notes and short written communication such as job applications and accident reports. Student communicates in written English as related to roles as family member, community member, worker, lifelong learner and citizen. Student reads at a basic level and comprehends simple material on familiar topics.

Course Activities and Design:

Oral Communication

- Listen for meaning in short dictation, dialogs, and short stories; answer comprehension questions in writing
- Clarify or seek information by asking questions
- Participate in group activities using comprehensible pronunciation

Reading

- Comprehend simple written material
- Use reading strategies such as previewing, predicting, picture cues, skimming and scanning to read paragraphs and brief stories

Written Communication

- Spell common sight words correctly
- Form questions (yes/no, Wh-) to express needs; to describe physical/emotional states, problems, possible solutions, daily activities, etc
- Write simple sentences about a single topic (in preparation for writing a paragraph)
- Use writing strategies such as brainstorming, graphic organizers, clustering and outlining to develop the concept of writing a paragraph
- Use correct format for writing notes and informal letters
- Phonics – recognize and apply sound/symbol correspondence

Outcome Assessment Strategies:

- Give and follow simple written directions (e.g. a map, a recipe, a schedule, assembly directions).
- Read a brief story and write answers to comprehension questions.
- Read a real-life situation described in simple language to solve a problem. Discuss and identify source of dilemma, possible solutions and consequences in small groups, ask for clarification, and make a decision. Write sentences to give advice or opinion to address the issue.
- Write information from a live or recorded source to pass on a simple message to another person.
- Fill out an information form or application in preparation for an interview.

<u>Themes Concepts and Issues:</u>

- Language Structure
- Written Language
- Cultural Awareness
- English Speaking Community
- Technology
- Personal Expression /Reflection
- Personal Responsibility
- Problem Solving
- Participation

- Teamwork
- Grammar
- Reading Comprehension
- Native Language Transference
- Multicultural classroom
- Technology
- Self-evaluation
- Numeracy
- Educational
- Employment
- Grammatical Competence
- English Writing System
- Communication

Curriculum Request Form
New Course

Course Number:	ESOL 033
Course Title:	EL Civics
Transcript Title:	EL Civics
Lecture Hours:	2-6
Weekly Contact Hours:	2-6
Total Credits:	0
Reason for New Course:	This is the former ESL 0748, which unintentionally became inactivated.
Course Description:	Adult English language learners receive civics education in how to gain US citizenship, US history and culture, and becoming active participants in their new communities. Reading, writing, speaking and listening skills are taught in the context of communicating in the adult life roles of community member and citizen. Instruction includes a variety of methods based on students' individual skill levels, needs and learning styles. Concepts and skills taught in the EL Civics classes help students gain citizenship.
Prerequisite(s):	Placement in ESOL 30, 40, 42, or 44.
Prereq/Concurrent:	None
Corequisite(s):	None
Learning Outcomes:	Student communicates in English as community member and citizen, and understands the rights and responsibilities of citizenship and civic participation. Student identifies and accesses a variety of community resources, exercises his/her civic rights and responsibilities, and is ready to complete the naturalization process.
Course Format:	On Campus
Other Format:	
Are there similar courses existing:	NO
Required or Elective:	Elective
Is there impact on	NO

degrees or certificates:

Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	NO
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Winter
Implementation Year:	2008
Contact Name:	Roxanne Hill
Contact E-mail:	rhill@pcc.edu

Course Content and Outcomes Guide

Date: October 22, 2007

Course Number: ESOL 33

Course Title: EL Civics

Credit Hours: 2-6 non-credit contact hours per week

Number of Weeks: 10 - 12

Special Fee: $15

Course Description for Publication

Adult English language learners receive civics education in how to gain US citizenship, US history and culture, and becoming active participants in their new communities. Reading, writing, speaking and listening skills are taught in the context of communicating in the adult life roles of community member and citizen. Instruction includes a variety of methods based on students' individual skill levels, needs and learning styles. Concepts and skills taught in the EL Civics classes help students gain citizenship.

Prerequisite: Placement in ESOL 30, 40, 42, or 44.

Learning Outcomes:

Student communicates in English as community member and citizen, and understands the rights and responsibilities of citizenship and civic participation. Student identifies and accesses a variety of community resources, exercises his/her civic rights and responsibilities, and is ready to complete the naturalization process.

Activities and Design Overview of Practiced Skills:

The student will practice some or all of the following, depending on his/her level in the specified skill area and available resources:

Oral Communication Skills

- Describe problems and possible solutions using comprehensible grammar
- Present ideas and opinions to others using comprehensible pronunciation, structure and grammar
- Ask for clarification, paraphrase and summarize during group discussion
- Participate in conversations on community topics
- Ask for information on a variety of topics in the context of community member and civic roles

- Express personal values
- Ask and respond to questions
- Use active listening strategies to listen for meaning in conversations, stories, telephone recordings etc
- Clarify meaning using a variety of strategies
- Give and follow multiple directions

Reading Skills

- Develop and use reading strategies such as identifying the main idea, skimming, scanning, inferring, paraphrasing, predicting, using context, background knowledge, and using picture cues to read and understand a variety of authentic materials
- Follow written instructions and interpret visual aids, tables and charts

Written Communication Skills

- Write a clear paragraph including: a good topic sentence, supporting details and comprehensible grammar
- Write simple narrative descriptions and short essays on familiar topics using appropriate vocabulary, correct spelling, standard format and organization, and comprehensible grammar and punctuation
- Communicate personal opinion in writing
- Develop editing and proofreading strategies

Technology Skills

- Respond to authentic telephone menu systems
- Use e-mail to communicate with others
- Become familiar with Internet vocabulary
- Access web-sites of interest
- Use educational software or online language exercises to practice English language skills
- Create, edit, save, print and close a simple text document
- Access, use and research resources through the Internet using a search engine

Outcome Assessment Strategies

Performance Tasks that may include:

- Taking a field trip to a location in the community – library, health clinics, employment services, public meeting etc, and giving a written or oral summary of the experience.

- Locating key community services on a map of the city (police station, hospital, fire, schools, libraries, post office etc.) and giving an oral or written description of their services.
- Developing and implementing a 'mock' voting session
- Listening to a guest speaker from the local community and giving an oral or written summary of the main points.
- Completing authentic job applications, health information forms, school information forms etc.
- Demonstrating the ability to obtain a driver's license in a classroom role-play.
- Doing a report on an American holiday and including a comparison with customs in home country.
- Demonstrating an appropriate response in a role-play, given a situation related to legal rights and responsibilities.
- Listing (orally or in writing) the conditions required when applying for citizenship
- Listing in order (orally or in writing) the steps necessary to obtain US citizenship
- Participating in a mock citizenship test, including the oral interview, answering some of the 100 questions, and completing a dictation.

Themes, Concepts and Issues:

Themes: Communication in roles as citizen, worker, community member, and family member; cultural awareness, lifelong learning, historical figures

Concepts: Culture, problem solving, English speaking community, technology empowerment, self-evaluation, goal setting, critical thinking, personal responsibility, personal expression, democracy

Issues: Role-balancing, cultural adjustment, naturalization, self-confidence, technology, communication, goal setting, parenting, personal advocacy, voting, civic responsibilities

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ESOL 260
Current Course Title:	Level 8 Academic Reading
Current Learning Outcomes:	Read college-level materials in English
Proposed Learning Outcomes:	Student reads unmodified, authentic basic college-level materials. Student demonstrates understanding by writing clear, well-developed summaries, analyses, responses and presentations, and by speaking comprehensibly about the material.
Reason for Learning Outcomes Change:	This change is to distinguish ESOL 260 from ESOL 250.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ESOL 262
Current Course Title:	Level 8 Writing
Current Learning Outcomes:	None posted
Proposed Learning Outcomes:	Write a clear, well-developed academic paper with an appropriate introduction and conclusion and a clear thesis statement using outside resources at a basic level.
Reason for Learning Outcomes Change:	This change is to add an outcome that is distinct from ESOL 252.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Learning Outcomes
Current Course Number:	ESOL 267
Current Course Title:	Level 8 Pronunciation
Current Learning Outcomes:	A. Consonants and Vowels 1. Pronounce word endings consistently 2. Avoid common sound substitutions: e.g. i/I, "th" and "r" sounds B. Stress and Intonation 1. Understand and use stress patterns and their relation to meanings 2. Understand and use intonation 3. Apply the I.P.A. in pronunciation improvement strategies C. Listening Comprehension 1. understand American English sound, rhythm and intonation patterns Explanation of Satisfactory Pronunciation Assignments A. speech can be understood by a native speaker
Proposed Learning Outcomes:	Student is able to communicate clearly, demonstrating command of most American English sound, rhythm, and intonation patterns.
Reason for Learning Outcomes Change:	The information currently posted as learning outcomes belongs in the Course Content-Themes, Concepts, Issues section of the COGs. It is not an outcome!
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2007
Contact Name:	Roxanne Hill
Contact E-Mail:	rhill@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 101
Current Course Title:	Introduction to Biotechnology

	Current	Proposed
Lecture Hours:	2/20	3/30
Lab Hours:	0	1/30
Current Lec/Lab Hours:	1/20	0
Contact Hours:	4	6
Credits:	3	4

Reason for Change:	Is appropriate for this course to have a companion laboratory to illustrate and emphasize key points. A prior revision from 3 cr lecture to the current combination of lec and lec lab was an move in this direction, but sacrificed needed lecture time while adding only 2 hrs of lec-lab per week, which was not adequate. Activities in lab will include scaled-down versions of authentic bioscience practices in several different areas (e.g., genome analysis as is used in forensics and genetic disease diagnosis, detection of food contaminants by PCR, Ab-based diagnostics). Experience, along with the availability of many published labs (and kits for labs!) suggests that students can do reasonably authentic labs in a more traditional lab (rather than lec-lab) format. The lab time may also be used for extended class discussion of issues in bioscience, and field trip(s) or discussion sessions with visiting industry representatives
Are outcomes affected?:	YES
Are degrees/certs affected?:	YES
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Impact on SACs:	There are no other courses in our curriculum that are remotely like this one, as far as I know (closest would be Biology, which has BIT 235 on the books, but BIT 101 course predates BIT 235, and that course has not been taught for several years.

Implem. Term:	Fall
Implementation Year,Implem. Year:	2008
Contact Name:	Kendra Cawley
Contact Email:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 101
Current Course Title:	Introduction to Biotechnology
Proposed Course Title:	Introduction to Bioscience Technology
Proposed Transcript Title:	Intro Bioscience Technology
Reason for Title Change:	Reflects increase breadth in the way the industry has defined itself in many places, notably Oregon. Several years ago the OBA changed its name from Oregon Biotechnology Association to Oregon Bioscience Association, to include activities that had not self-identified as “Biotechnology” (a term that has become associated with genetic manipulation, but not so much other areas that with a broader definition would be considered to be Biotech (e.g., HemCon, a local company makes bandages from shrimp exoskeleton - no genetic manipulation, but clearly technology from living things).
Current Description:	Introduces biotechnology industry and related areas. Reviews the basic science and tool in the context of major biotechnology applications (in medicine, agriculture, environmental science and forensics), examines ethical, legal and social issues, and career opportunities in biotechnology. Recommended: completion of two terms of college Biology or Chemistry.
Proposed Description:	Introduction to and survey of the broad range of activities in bioscience technology. Major applications and advances in pharmaceuticals, medical devices, genomics, forensics, proteomics, agriculture, and environmental science will be covered. Includes examination and discussion of ethical, legal and social issues, and career opportunities. The lab emphasizes hands-on activities based on authentic bioscience applications. Recommended: BI 112 or 211. Prerequisite: Placement into WR 115 and RD 115
Reason for Description Change:	Reflects increased breadth (included in medical devices) and presence of lab.
Current Learning Outcomes:	Interpret and evaluate biotechnology activities and issues across the broad spectrum of applications (medical, agricultural, forensic,

	environmental)
Proposed Learning Outcomes:	Interpret and evaluate information about bioscience technology across the broad spectrum of current applications. Make informed decisions that relate to applications of bioscience that have impact on self, family, community and the environment.
Reason for Learning Outcomes Change:	Revision of old outcome and addition of a new one that speaks more directly to what we hope students will take away from this course. The additional credit due to the added lab is not directly reflected in these outcomes, because the activities in lab support, rather than add to, content that was mostly already present. There is content added, however, in the breadth inherent in refocusing from biotechnology to bioscience technology (and a concomitant decrease in the level of detail with which some of the applications, particularly those involving recombinant DNA technology, are covered). To a degree, the lab helps support that increased breadth as well, especially in allowing time for field trips to local companies that are a bit outside of what has been "traditionally" seen as biotechnology
Current Prerequisites:	None
Proposed Prerequisites:	Placement into WR 115 and RD 115
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 105
Current Course Title:	Biotechnology Lab Safety

	Current	Proposed
Lecture Hours:	3/30	2/20
Total Contact Hours:	3	2
Current Credits:	3	2

Reason for Change:	Two credits are sufficient for the level of detail required, and is proportional to the safety instruction in BIT 110, the parallel introductory course in the BIT program. Content has been adjusted to include physical hazards and deemphasize radiation safety, and in general, some depth will be removed that has been deemed unnecessary Students in taking BIT 105 will generally also take BI 109, in which the principles and practices of safety are observed and reinforced.
Are outcomes affected?:	YES
Are degrees/certs affected?:	No
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Implem. Term:	Fall
Implementation Year,Implem. Year:	2008

Contact Name:	Kendra Cawley
Contact Email:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 105
Current Course Title:	Biotechnology Lab Safety
Proposed Course Title:	Safety in the Bioscience Workplace
Proposed Transcript Title:	Bioscience Workplace Safety
Reason for Title Change:	Reflects increased breadth and focus of revised program.
Current Description:	Provides survey of technical and regulatory aspects of chemical, radiation, and biological safety in the biotechnology laboratory. Principle topics covered are: handling and storing hazardous chemicals, personal protective equipment, chemical waste disposal and spills, ionizing radiation, radiation control measures/programs, biological containment, disinfection/sterilization, medical waste handling, applicable regulations and guidelines.
Proposed Description:	Survey of technical and regulatory aspects of physical, chemical, radiation and biological safety in the bioscience laboratory. Topics covered include: mechanical and electrical systems, hazards due to temperature and pressure, handling and storing hazardous chemicals, personal protective equipment, chemical waste disposals and spill, ionizing radiation and control measures, biological containment, disinfection/sterilization, medical waste handling, applicable regulations and guidelines. Prerequisite: Placement into WR 115, RD 115.
Reason for Description Change:	Reflects addition of content on physical hazards, removes reference to radiation control programs (these tend to be specific to the institutional/industry setting and part of required orientation for new workers who are working with or likely to be exposed to ionizing radiation. OHSU offers their in-house training course to all PCC BIT students gratis). Adds prerequisites in RD and WR.
Current Learning Outcomes:	Identify hazards that are relevant to the biotechnology laboratory and the appropriate steps to minimize exposure to oneself, ones coworkers and the environment in routine work. Describe proper handling and disposal of chemicals, radioisotopes and biohazardous materials that are commonly used in a biotechnology laboratory.

	Work within the federal and state regulations and guidelines that apply to the use of hazardous materials in the laboratory.
Proposed Learning Outcomes:	Work effectively within the safety parameters, regulations and guidelines in a bioscience laboratory or biomanufacturing environment Identify hazards (mechanical, electrical temperature and pressure, chemicals, radiation and biological) that apply to a particular bioscience setting, take appropriate steps to minimize risk to self, co-workers and the environment during routine work, and deal with accidents appropriately.
Reason for Learning Outcomes Change:	Broadened to include workplaces other than biotechnology laboratory. Refocus outcomes to “out there” expectation.
Current Prerequisites:	None
Proposed Prerequisites:	Placement into WR 115, RD 115.
Proposed Corequisites:	
Will this impact other SACs?,Is there an impact on other SACs?:	No
How other SACs may be impacted:	
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 107
Current Course Title:	Laboratory Mathematics

	Current	proposed
Current Lecture Hours:	3/30	2/20
Total Contact Hours:	3	2
Current Credits:	3	2

Reason for Change: Three credits are more than is needed for the level of detail required. Also, 2 cr is proportional to the instruction /assessment in BIT 110, the parallel introductory course in the BIT program. Finally, students in taking BIT 107 will generally also take BI 109, in which the calculations are repeatedly practiced, expanded upon, and assessed.

Are outcomes affected?:	YES
Are degrees/certs affected?:	No
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Implem. Term:	Fall
Implementation Year,Implem. Year:	2008

Contact Name:	Kendra Cawley
Contact Email:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 107
Current Course Title:	Laboratory Mathematics
Proposed Course Title:	Bioscience Lab Math
Reason for Title Change:	Specifies bioscience lab as context; shortened to common parlance.
Current Description:	Focuses on mathematical skills and problems relevant to the biotechnology laboratory. Covers calculations for solution preparation, analysis and manipulation of biological molecules and cells, analysis and interpretation of data and commonly used statistical methods. Prerequisite: MTH 95.
Proposed Description:	Develops mathematics skill and problem-solving related to work in a bioscience laboratory or biomanufacturing environment. Includes calculations for solution preparation, analysis and manipulate of molecules and cells, analysis and interpretation of data and commonly used statistical methods. Recommended: Prior or concurrent college level course in Chemistry, or Biology 112 or 211. Prerequisite: Placement MTH 65/70.
Reason for Description Change:	Reflects broader context for application of math in the bioscience workplace. Experience has suggested that a prerequisite of MTH 95 is more than is needed. The main skill that students need is solving problems in ratio and proportions, and setting up a simple linear equation to solve for X. The applications require some knowledge of chemistry (molecular weight, for example), but these are reviewed and remediated when necessary within the context of the course. Also exponents, scientific notation, and logarithmic functions (to a limited degree) are taught in the course, as they are not covered even in MTH 95, and a higher math prerequisite is not necessary for most operations.
Current Learning Outcomes:	Students completing this class will be able to : Utilize mathematics as a vocabulary and problem solving tool in an exact way for communication in preparation for further course and laboratory work Recognize interpret formulate and apply common mathematical situations in the biomolecular laboratory with consistency and

	confidence Represent data and master sound solution methods to draw trustworthy conclusions based on data
Proposed Learning Outcomes:	Carry out calculations needed to prepare solutions, make dilutions, interpret protocols and evaluate data in bioscience laboratory or manufacturing environment
Reason for Learning Outcomes Change:	This outcome is cleaner and speaks more directly to the desired ability student successfully completing the course. Detail on the specific kinds of calculations, formulae and unit conversions are described in the body of the CCOG.
Current Prerequisites:	Prerequisite: MTH 95
Proposed Prerequisites:	Placement MTH 65/70
Will this impact other SACs?,Is there an impact on other SACs?:	no
How other SACs may be impacted:	
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	no
How other Depts/Campuses will be impacted:	
Request Term:	Select One
Requested Year:	Select One
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 109
Current Course Title:	Basic Lab Techniques and Instruments

	Current	Proposed
Lecture Hours:	2/20	1/10
Lab Hours:	1/30	0
Current Lec/Lab Hours:	0	4/80
Total Contact Hours:	5	9
Current Credits:	3	5

Reason for Change: Redistribution of credit from BIT 105 and 107 to provide more time for hands-on instruction in this course. The combination of BIT 105, 107 and 109 remains at 9 cr, but the new distribution more closely aligns with the parallel course BIT 110. Retaining this sequence as a parallel offering allows us to more flexibly offer the introductory sequence, either over different terms, or using different modalities. In addition, the individual aspects of this sequence (safety, math, lab techniques) have utility on their own (we have often had non-program students enroll in the Lab safety course, for example, on the advice of their employer). The lab math course, especially if developed for DL, could be of great use for people starting out in lab work, because even folks with BS degrees and higher need to learn to do these calculations routinely, accurately and with confidence.

Are outcomes affected?:	YES
Are degrees/certs affected?:	No
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Implem. Term:	Fall
Implementation	2008

Year,Implem. Year:

Contact Name: Kendra Cawley
Contact Email: kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Description, Requisites, Learning Outcomes
Current Course Number:	BIT 109
Current Course Title:	Basic Lab Techniques and Instruments
Current Description:	Introduces fundamental laboratory skills. Learn procedures for solution preparation, measurement of pH, use and calibration of pipettors, UV/VIS spectroscopy, protein assay techniques and interpretation, and some techniques in purification and analysis of DNA. Prerequisite for all 200-level BIT courses. Prerequisite/Corequisite: BIT 107.
Proposed Description:	Introduces fundamental principles and practices for the bioscience laboratory. Principles of quality documentation, safety, and precise communication will be emphasized throughout, in the context of technical activities that include solution preparation, instrumentation for measurements (weight, volume, temperature, pH, conductivity and spectroscopy), assay techniques and routine laboratory maintenance. Recommend prior or concurrent college level course in Chemistry, or Biology 112 or 211. Prerequisite: Placement into WR 115, RD 115, MTH 65/70. Prerequisite or Concurrent enrollment in: BIT 105 and BIT 107.
Reason for Description Change:	Description is parallel (but not identical) to BIT 110. Emphasis is on the bioscience laboratory rather than the biomanufacuting environment. Content related to assay principles and techniques and routine laboratory maintenance will be covered this course. Both BOT 109 and BIT 110 include the critical foundation content to prepare students for the more advanced laboratory courses in the BIT program.
Current Learning Outcomes:	Carry out fundamental and commonly used routine laboratory tasks with confidence, quality and appropriate documentation. Maintain laboratory equipment and environment
Proposed Learning Outcomes:	Work in a bioscience laboratory environment, applying principles of safety, quality and teamwork Carry out common laboratory measurements (weight, volume, temperature, pH and light) demonstrating understanding of the limits of detection, principles of calibration, and limits in

	the precision and accuracy of the instrumentation used. Perform calculations needed to prepare solutions, make dilutions, maintain records and evaluate data in bioscience laboratory environment. Use an understanding of microbiological principles and properties to work effectively in a standard laboratory environment. Communicate clearly and succinctly the purpose, procedures, results and interpretation of data collected from measuring/monitoring equipment and from laboratory experiments.
Reason for Learning Outcomes Change:	Proposed outcomes are parallel (but not identical) to those of BIT 110, emphasizing the bioscience laboratory. The outcome related to informed career choices is not in this class because industry partners are not as actively engaged in this course as in BIT 110, so students will not have as much opportunity to evaluate career choices. However, students in the program are still required to take BIT 181, which will be offered concurrently with BIT 109, and is, to a degree part of BIT 101, so at the degree/certificate level that outcome is retained.
Current Prerequisites:	see prereq/concurrent)
Proposed Prerequisites:	Placement into WR 115, RD 115, MTH 65/70
Current Prerequisites/Concurrent:	BIT 107.
Proposed Prerequisites/Concurrent:	BIT 105 and BIT 107
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
New Course

Course Number:	BIT 110
Course Title:	Bioscience Technology Basics
Transcript Title:	Bioscience Technology Basics
Lec/Lab Hours:	9
Weekly Contact Hours:	18
Total Credits:	9
Reason for New Course:	This course is intended to serve as the core of the proposed Bioscience Technology Certificate I (pre-employment skills for entry-level workers in the bioscience industry), as well as the prerequisite course for more advanced and specific courses in the Bioscience Technology program. It will serve as an alternative to the trio of courses (BIT 105, 107 and 109, 9 cr) that has been the technical foundation level for the Biotechnology program. BIT 110 has been developed in collaboration with Genentech and other members of the Oregon Bioscience Association, with the intention of expanding the content to include topics and activities relevant to a broader group of bioscience employers. Because some of the prior content was removed to make room for the additional material covered, the other courses in the program are being concomitantly adjusted. A key part of the course actively involves industry partners, to put very clear real-world context around the principles and practices emphasized in the course.
Course Description:	Introduces fundamental principles and practices for the bioscience laboratory and biomanufacturing environment. Principles of quality documentation, safety, and communication will be emphasized throughout, in the context of technical activities that include solution preparation, instrumentation for measurements (weight, volume, temperature, pH, conductivity and spectroscopy) and selected biomanufacturing activities. Recommend concurrent enrollment in BIT 181
Prerequisite(s):	Placement into WR 115, RD 115 and MTH 65/70, or equivalent test scores.
Prereq/Concurrent:	None
Corequisite(s):	None

Learning Outcomes:	• Work in a bioscience laboratory or biomanufacturing environment, applying principles of safety, quality, teamwork and good business practices • Carry out common laboratory measurements (weight, volume, temperature, pH and light) demonstrating understanding of the limits of detection, principles of calibration, and limits in the precision and accuracy of the instrumentation used. • Carry out calculations needed to prepare solutions, make dilutions, maintain records and evaluate data in bioscience laboratory environment. • Use an understanding of microbiological principles and properties to work effectively in a standard lab or aseptic environment • Communicate clearly and succinctly the purpose, procedures, results and interpretation of data collected from measuring/monitoring equipment and from laboratory experiments. • Make informed decision about career opportunities and related education and training choices for the bioscience field.
Course Format:	On Campus
Other Format:	
Are there similar courses existing:	NO
Required or Elective:	Required
Is there impact on degrees or certificates:	YES
Description of impact on deg/cert:	This course will serve as the core of the proposed Bioscience Technology I certificate, and as a prerequisite for most of the technical courses in the Bioscience Technology program.
Is there an impact on another dept or campus?:	YES
Description of impact on dept/campus:	Because it is multidisciplinary in nature, we initially intend to collaborate with other disciplines to provide appropriate instruction in areas more closely related to physics, mechanics and electronics. The course should not have a negative enrollment impact on any other department or campus, because there is no similar course in our curriculum
Have other SACs been	YES

contacted?:	
Description of Contact:	There are clearly no similar courses in PCCs curriculum, but there are areas covered within this course that overlap with content in other discipline areas. I have been working with the faculty in the Microelectronics to collaborate on the teaching of this course. I have also contacted the Electrical Engineering SAC Chair regarding this course. We initially thought that Genentech wanted a full AAS degree, and it seemed likely that there would be significant overlap in part of such a program. When EET learned that Genentech has asked for this much smaller more foundation-level certificate that includes a significant instruction in areas traditionally taught in Biotechnology (solution preparation, lab math and safety, basic lab techniques), the SAC chair acknowledged no concerns about content overlap or enrollment impact.
Is there an increase in costs for Library or AV Dept?:	YES
Description of Library/AV impact:	Although our specific needs have not yet been identified, we anticipate that some additional reference material, industry-based periodicals and training videos may be requested.
Implementation Term:	Summer
Implementation Year:	2008
Contact Name:	Kendra Cawley
Contact E-mail:	kcawley@pcc.edu

Course Content and Outcome Guide
Prepared by: Kendra Cawley

Course Number: BIT 110

Course Title: **Bioscience Technology Basics**

Credits: 9

Lecture Hours (total):
Lec Lab Hours (total): 180
Lab Hours (total):

Course Description:
Introduces fundamental principles and practices for the bioscience laboratory and biomanufacturing environment. Principles of quality documentation, safety, and communication will be emphasized throughout, in the context of technical activities that include solution preparation, instrumentation for measurements (weight, volume, temperature, pH, conductivity and spectroscopy) and selected biomanufacturing activities. Recommend concurrent enrollment in BIT 181.

Prerequisites:
Placement into WR 115, RD 115 and MTH 65/70, or equivalent test scores.

Addendum to Description *(additional information that is not in the official course description)*

This course is intended to serve as the core of the most basic bioscience certificate (pre-employment skills for entry-level workers in the bioscience industry), as well as the prerequisite course for more advanced and specific courses in the Bioscience Technology program. The content was developed in collaboration with Genentech and other members of the Oregon Bioscience Association . A key part of the course actively involves these partners, to put industry context around the principles and practices emphasized in the course. The course should be structured and paced in such a way as to facilitate this key interaction.

In addition, students will be expected to concurrently enroll in BIT 181, a career exploration course that focuses on a survey of the Bioscience industry in Oregon, field trips, and preparation for employment in this field.

Outcomes:

- Work in a bioscience laboratory or biomanufacturing environment, applying principles of safety, quality, teamwork and good business practices
- Carry out common laboratory measurements (weight, volume, temperature, pH and light) demonstrating understanding of the limits of detection, principles of calibration, and limits in the precision and accuracy of the instrumentation used.
- Carry out calculations needed to prepare solutions, make dilutions, maintain records and evaluate data in bioscience laboratory environment.
- Use an understanding of microbiological principles and properties to work effectively in a standard lab or aseptic environment
- Communicate clearly and succinctly the purpose, procedures, results and interpretation of data collected from measuring/monitoring equipment and from laboratory experiments.
- Make informed decision about career opportunities and related education and training choices for the bioscience field.

Assessment of Outcomes

Written Exams There are certain concepts and facts that students must master in order to meet the outcomes that are most efficiently assessed via standard written exams. Skills related to solution calculations can also be authentically assessed this way. Exams may also include questions that ask students to respond to "what if" situations in the work setting.

Practical Exams allow students to demonstrate skills such as making and interpreting measurements, preparing solutions, following SOPs

Interactive Exams ideally one-on-one, or in small groups, going over results of measurements and/or experiment. Students should be able to explain the purpose of the work, the results and the interpretation to an instructor/supervisor, and make suggestions for improvements. This assessment is for both the content and the communication of the work.

Lab Notebooks should be kept current for all laboratory activities. Frequent evaluation and feedback on this documentation is essential.

Papers: by writing up some of the experiments conducted in the laboratory, students are forced to think more critically about the interpretation of the results than they otherwise might. They are asked to do this in a formal scientific-style paper (even though it is not an entry-level expectation), because each section of the paper reinforces and allows evaluation on specific communication skills. Instructors can also help students develop communication skills by feedback and allowing revision, if possible.

Exit Interview: At the end of the course, students will meet one-on-one with instructor for the assessment of mastery of selected key concepts and issues. This interview will include a discussion of plans for employment and/or future study

COURSE ACTIVITES AND DESIGN:
The course is set up in a lec-lab format, to facilitate smooth integration activities. The most likely schedule would be three days/week, with Friday afternoons (or all day when appropriate) dedicated to presentations/guest lectures form industry representatives. The purpose of these "Industry Fridays" is to put the topics covered that week into their "real-world' context.

COURSE CONTENT:

Themes – *Topics that thread through all of the instruction*

- Systems for Quality
- Laboratory and Industrial Safety
- Communication

Concepts -- *Things that need to be known and understood in support of the outcomes*

- The nature of Biotech/bioscience (applications, products, activities, careers and education)
- Atomic structure and bonding
- Solution chemistry: ions, solution properties , pH; water (properties, purity)
- Structure and function of biological molecules (proteins and nucleic acids in particular)
- Quality Measurements: accuracy and precision, calibration and standards, validation
- Safety: typical hazards, elements of working safely
- Microbiological properties and contamination
- Separations involving biological molecules: principles and practices

Issues – *Things that may need to be "overcome" in order to achieve the outcomes*

- Applications of quality systems to general laboratory tasks:
- Calibration, validation, recordkeeping, documentation -- from SOPs to lab notebooks
- Working safely
- Working aseptically
- Applying concepts and principles to laboratory practices
- Teamwork

Skills – *Mastered by repletion and practice in order to achieve the outcomes*

- Laboratory Math (solutions, dilutions, data management and presentation)
- Measurements: weight, volume, pH, etc, with good precision and accuracy
- Solution Preparation: single and multi-component, adjusting pH, documentation and labeling
- Basic aseptic technique
- Recognizing and responding appropriately to normal hazards and unexpected events
- Communication: written (summarizing, interpreting, providing background – succinctly)
  Communication: interactive (conference, in teams, presentation)
- Using computers for obtaining information, using forms, record-keeping, communication

Curriculum Request Form
Course Revision

CHANGE:	Course Number,Course Title,Course Description,Learning Outcomes
Current Course Number:	BIT 225
Proposed Course Number:	BIT 125
Current Course Title:	Quality Systems in Biotechnology
Proposed Course Title:	Quality Systems in Bioscience Technology
Proposed Transcript Title:	
Reason for Title Change:	Title change consistent intended change in Program and AAS degree title. Number change reflects expectation that this course will be taken early in the program, as regulatory compliance is critical for even the most entry level workers in the field.
Current Description:	Introduces various regulatory bodies with jurisdiction over activities in biotechnolgy. Particular emphasis placed on the FDA regulation for good laboratory and manufacturing practices and processes relating to product approval.
Proposed Description:	Introduction to internal and external quality systems that apply to the bioscience industry, with emphasis on working a regulated environment. Also covers various agencies that regulate the bioscience industry, FDA regulation for good laboratory and manufacturing practices (GLP and cGMP), and processes relating to product approval.
Reason for Description Change:	Adds verbiage about working in a regulated environment, which is critical to employers.
Current Learning Outcomes:	Identify the regulatory compliance issues attending the development and manufacture of a new biotechnology product Describe the key elements of a Quality System for the FDA-regulated manufacture of a biotechnolgy product (drug, biologic or device). Write a functional Standard Operating Procedure for a familar laboratory process
Proposed Learning Outcomes:	Use an understanding and appreciation of the importance of quality systems and regulatory compliance to work effectively and within established parameters in a regulated bioscience

	laboratory or biomanufacturing environment.
Reason for Learning Outcomes Change:	It's wordy, but it speaks to the critical work place context. This is one place where leaving in "understanding" and "appreciation" is important, especially if employers are reading the outcomes. What they ask for is that workers understand the importance of adherence to whatever rules are put in place by the company to satisfy compliance. They say that they can easily train workers to the specifics of the product or company if the worker has already gained an appreciation of how critical this aspect of the work is.
Current Prerequisites:	None
Proposed Prerequisites:	None
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
New Course

Course Number:	BIT 181
Course Title:	Exploring Bioscience
Transcript Title:	Exploring Bioscience
Lecture Hours:	1/1
Lab Hours:	1/3
Weekly Contact Hours:	4
Total Credits:	2
Reason for New Course:	The particular combination of learning about the bioscience industry and learning how to find employment in this sector was requested by and developed in collaboration with Genentech representatives, who wished to replicate a successful model for pre-employment training they had developed in partnership with Skyline Community College in California. This course is intended to be a companion course to BIT 110. While BIT 110 focuses on technical content, bringing industry representatives in to provide real-world context, this course takes the student on a journey through several bioscience companies, both virtually and physically, to investigate the variety of applications of bioscience in our local industry. In addition, Genentech specifically requested that the course involve emphasis on employment “soft skills”, as well as instruction and support for job-searching. At Skyline, HR employees from local companies participate in the resume review and mock interviews with program students, and a similar level of engagement has been promised by Genentech here, with the anticipated participation of other companies expected.
Course Description:	Overview and exploration of bioscience technology, from research and development to manufacturing. Covers career options and pathways, and guides students in the development of skills to identify potential internships, entry-level positions and education and training opportunities that fit the student’s goals and trends in the field. Participation in field trips is essential.
Prerequisite(s):	None
Prereq/Concurrent:	Concurrent enrollment in BIT 110 or instructor permission

Corequisite(s):	None
Learning Outcomes:	• Make informed decisions about career options and education/training requirements for employment and advancement in the bioscience field. • Research, apply and interview for employment with a company or other employer in the bioscience industry.
Other Format:	
Are there similar courses existing:	YES
Description of existing courses:	Similar courses of career exploration are offered by several CTE disciplines, and there are some multidisciplinary courses of that nature in the CG. Likewise many CTE disciplines work with students on resume preparation and interviewing skills, sometimes in the context of other courses. There is a 1 cr Job Finding Skills course that is offered by CG, but in the past, biotechnology students have found that they need more specific advice and feedback when looking for employment in this industry sector. Genentech specifically requested a course emphasizing exploration of the field, job-search and acquisition skills, and emphasizing the importance of “soft skills” especially as they relate to this technical and , in many ways, sensitive industry. At this submission, I have not yet contacted the CG SAC chair about the course, but will do so prior to committee review.
Required or Elective:	Required
Is there impact on degrees or certificates:	YES
Description of impact on deg/cert:	This course will be required for the proposed Bioscience Technology Certificate I, and for the proposed revised AAS degree.
Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	YES
Description of Contact:	The only area in which a concern of overlap/duplication is anticipated would be with the CG SAC, as the course does incorporate job-finding skills such as resume and interview preparation. At this submission, I have not yet contacted the CG SAC chair about the course, but will do so prior to committee review.

Is there an increase in costs for Library or AV Dept?:	NO
Description of Library/AV impact:	Well, probably not. Students are likely to benefit from the expertise of library faculty and staff for conducting research into the companies investigated. Additional library or AV materials are not anticipated.
Implementation Term:	Summer
Implementation Year:	2008
Contact Name:	Kendra Cawley
Contact E-mail:	kcawley@pcc.edu

Course Content and Outcome Guide
Prepared by: Kendra Cawley

Course Number: BIT 181

Course Title: Exploring Bioscience

Credits: 2

Lecture Hours (total): 10
Lec Lab Hours (total):
Lab Hours (total): 30

Course Description:
Overview and exploration of bioscience technology, from research and development to manufacturing. Covers career options and pathways, and guides students in the development of skills to identify potential internships, entry-level positions and education and training opportunities that fit the student's goals and trends in the field. Participation in field trips is essential.

Prerequisites:
Concurrent enrollment in BIT 110 or instructor permission

Addendum to Description *(additional information that is not in the official course description)*
This course is intended to be a companion course to BIT 110. While BIT 110 focuses on technical content, bringing industry representatives in to provide real-world context, this course takes the student on a journey through several bioscience companies, both virtually and physically, to investigate the variety of applications of bioscience in our local industry.
The emphasis on this course is a combination of learning about local companies and employment opportunities, as well as learning what it takes to both get and keep such jobs, and advance in the field.

The particular combination of learning about and learning how to find employment in this industry was requested by and developed in collaboration with Genentech representatives, who wished to replicate a successful model for pre-employment training they had developed in partnership with Skyline Community College in California.

Outcomes:

- Make informed decisions about career options and education/training requirements for employment and advancement in the bioscience field.
- Research, apply and interview for employment with a company or other employer in the bioscience industry.

Assessment of Outcomes
May include but not limited to the following

Industry Report and Presentations Students will be asked to investigate two or more local companies and prepare both a written summary and class presentation for each.

Preparation of Resumes and Mock Interviews: Students will meet one-on-one with instructor and/or industry HR representatives for practice, feedback on and assessment of their pre-employment skills.

Exit Interview: At the end of the course, students will meet one-on-one with instructor for the assessment of mastery of selected key themes concepts and issues. This interview will include a discussion of plans for employment and/or future study

COURSE ACTIVITES AND DESIGN:
Key activities should include the following

- Exploration of local companies: Investigate several local companies (history, statistics, reaearch and/or product focus, quality and safety issues, employment levels and opportunities etc) prepare both a written summary and class presentation.

- Field trips – Emphasis on local companies and research labs, but also may include employment services and industry-sponsored events.

- Resume and Interview preparation and practice, in collaboration with HR professionals from Bioscience companies.

COURSE CONTENT:

Themes – *Topics that thread through all of the instruction*

- Education and training related to career advancement in Bioscience
- Communication
- Systems for Quality
- Laboratory and Industrial Safety

Concepts -- *Things that need to be known and understood in support of the outcomes*

- The nature of Biotech/bioscience (applications, products, activities, careers and education)
- Systems for quality in context
- Laboratory and Industrial Safety in context
- "Soft skills" and their importance to employers

Issues – *Things that may need to be "overcome" in order to achieve the outcomes*

- Organizing and presenting information
- Understanding employer perspective and needs
- Professional standards of accountability, integrity, dependability, and presentation

Skills – *Mastered by repletion and practice in order to achieve the outcomes*

- Obtain information about a Bioscience company from print, internet and interview
- Prepare and revise resume
- Interview skills

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number: BIT 201

Current Course Title: Applied Immunology

	Current	Proposed
Proposed Lecture Hours:	3/30	1/10
Current Lab Hours:	1/30	0
Current Lec/Lab Hours:	0	4/80
Total Contact Hours:	6	9
Current Credits:	4	5

Reason for Change: Increase in lab hours is necessary because these methods cannot be effectively compressed into 3 hours per week and still provide authentic experience. Outcomes do not change because they are written as “should include but not be limited to ....”, allowing for the additional projects as time allows. Shift of lab hours to lec-lab more accurately reflects the nature of the course and the work expected outside of the contact hours (for both student and instructor), and is consistent with other courses of similar level in the program.

Are outcomes affected?: NO

Are degrees/certs affected?: YES

Is there an impact on other Dept/Campus?: NO

Is there potential conflict with another SAC?: NO

Impact on SACs: Biology has a 199 course in Immunology that has some content overlap with this course (overview of immune response), and a New Course proposal may be forthcoming. This is because students who are applying for the Clinical Lab Science Program (BS, Medical Technology) at OHSU

	are required to take a course in Immunology as a prerequisite, and there are few such courses available locally. BIT 201 has been accepted by the facutly at OHSU as an acceptable prerequisite to the CLS program. The changes suggested here are not likely to affect that, and may argue against the use of this course if a more suitable alternative is available, which would benefit, rather than harm the Biology course offering.
Implem. Term:	Fall
Implementation Year,Implem. Year:	2008
Contact Name:	Kendra Cawley
Contact Email:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites
Current Course Number:	BIT 201
Current Course Title:	Applied Immunology
Proposed Course Title:	Immunochemical Methods
Proposed Transcript Title:	Immunochemical Methods
Reason for Title Change:	Better reflects the content of the course
Current Description:	Familiarizes students with general properties and uses of antibody molecules. Covers an overview of immune response, synthesis of immunoglobulin, obtaining useful antibodies and a variety of commonly used immunochemical techniques and strategies.
Proposed Description:	Introduces the general properties and uses of antibody molecules. Includes an overview immune response, biosynthesis of immunoglobulin, obtain, purifying and labeling antibodies, and using antibodies in a variety of common applications (ELISA, Western blot, immunoprecipitation and immunocytochemistry, antibody-based affinity chromatography). Prerequisite: BIT 109 or 110; BI 112 or CH 100 or higher; or instructor permission.
Reason for Description Change:	Proposed description is more specific about content and specific applications covered in the course.
Current Prerequisites:	Prerequisite: BIT 109
Proposed Prerequisites:	Prerequisite: BIT 109 or 110; BI 112 or CH 100 or higher; or instructor permission.
Will this impact other SACs?,Is there an impact on other SACs?:	No

How other SACs may be impacted:	BIT 112 or a chem course is added prereq, but not anticipated to have a significant imparc on enrollment.
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
New Course

Course Number:	BIT 203
Course Title:	Recombinant DNA
Transcript Title:	Recombinant DNA
Lecture Hours:	1/10
Lec/Lab Hours:	4/80
Weekly Contact Hours:	9
Total Credits:	5
Reason for New Course:	This is not actually a new course, but an old course (BIT 221) for which a new number, name, description, credits and contact hours are proposed. The outcome has not changed. The number change puts it into a more logical "sequence" with other courses in the revised program. The new title and descriptions more clearly and specifically describe the content. The credit/contact hours, especially the shift of lab hours to lec-lab, more accurately reflect the nature of the course and the work expected outside of the contact hours (for both student and instructor), and is consistent with other courses of similar level in the program.
Course Description:	Laboratory-intensive course focusing on the strategies and techniques used in recombinant DNA work. Covers vector and insert options and preparation, quantitation of DNA, ligation and transformation procedures, and analysis by restriction digest, blot hybridization and PCR. Prerequisites: BI 109 or 110; and any one of the following: BIT 101, BI 102, BI 112, BI 212 or BIT 234, or instructor permission.
Prerequisite(s):	BI 109 or 110; and any one of the following: BIT 101, BI 102, BI 112, BI 212 or BIT 234, or instructor permission.
Prereq/Concurrent:	None
Corequisite(s):	None

Learning Outcomes:	Construct and analyze a new plasmid prepared by the subcloning of a restriction fragment from one plasmid to another.
Other Format:	
Are there similar courses existing:	NO
Description of existing courses:	
Required or Elective:	Elective
Is there impact on degrees or certificates:	YES
Description of impact on deg/cert:	This course part of the AAS degree in Bioscience Technology, on a short list of advanced electives in the program
Is there an impact on another dept or campus?:	NO
Have other SACs been contacted?:	NO
Description of Contact:	To the best of my knowledge, no other SAC at PCC is teaching recombinant DNA technology
Is there an increase in costs for Library or AV Dept?:	YES
Description of Library/AV impact:	Maybe. Although this course relies mostly on standard protocol manuals kept in the lab, and product inserts or on-line resources from product suppliers, there may be video recordings to help students visualize procedures before they perform them, which would be useful to acquire.
Implementation Term:	Fall
Implementation Year:	2008
Contact Name:	Kendra Cawley
Contact E-mail:	kcawley@pcc.edu

Course Content and Outcome Guide
Prepared by: Kendra Cawley

Course Number: BIT 203

Course Title: **Recombinant DNA**

Credits: 5

Lecture Hours (total): 10
Lec Lab Hours (total): 80
Lab Hours (total):

Course Description:
Laboratory-intensive course focusing on the strategies and techniques used in recombinant DNA work. Covers vector and insert options and preparation, quantitation of DNA, ligation and transformation procedures, and analysis by restriction digest, blot hybridization and PCR.

Prerequisites: BI 109 or 110; and any one of the following: BIT 101, BI 102, BI 112, BI 212 or BIT 234, or instructor permission

Addendum to Description *(additional information that is not in the official course description)*
An important and routine activity in DNA work involves removing a segment of DNA from one place, usually a plasmid or bacteriophage, and inserting into a different stretch of DNA usually a plasmid or modified virus. One then isolates and characterizes the "cloned" product. This operation (subcloning to create new combinations of DNA sequences) is critical for basic research swell as research and development of new produces and procedures. While the actual ligation and transformation steps can be carried out in a single afternoon, the planning, preparation of insert fragment and vector, and , at the other end of the procedures, the analysis of the results, are considerably more involved. They also require knowledge of with recombinant principles and strategies, and skill at performing a variety of calculations and analytical procures. These are embedded in, and necessary component of the single outcome for this course.

Outcomes:

Construct and analyze a new plasmid prepared by the subcloning of a restriction fragment from one plasmid to another

Assessment of Outcomes

Produce bacterial clones containing the desired inserted fragments, along with the data necessary to show that the insertion was successful and in the desired direction (or not). (Note: an unsuccessful ligation will suffice if the procedures analysis have been carried out, documented and interpreted correctly

Maintain a laboratory notebook which documents all procedure carried out in the lab that can be read and understood by a reader "skilled in the art" and which includes all necessary details of the procedures and analyses.

Participate in, and contribute to, all class and team discussions and activities; Write all schedule examinations

COURSE ACTIVITES AND DESIGN:

Students will work through two complete subcloning operations. They will prepare, purify and quantitate both insert and vector, and following ligation and transformation, identify and characterize transformants. The supporting lecture will provide an opportunity to discuss the theory, strategies and variations which apply to each part of the procedure. The second round of cloning will employ different vectors and/or fragments, and involve more student initiative in planning and execution

COURSE CONTENT:

Themes – *Topics that thread through all of the instruction*

- Care for procedure
- Project planning
- Alternative strategies

Concepts -- *Things that need to be known and understood in support of the outcomes*

- Purification of DNA
- Quantification of DNA
- Ligation
- Transformation
- Cloning
- Restriction analysis
- Southern blot analysis
- PCR analysis

Issues – *Things that may need to be "overcome" in order to achieve the outcomes*

- Maintaining laboratory notebook for continuity and detail
- Communication
- Controls
- Dealing with unexpected results

Skills – *Mastered by repletion and practice in order to achieve the outcomes*

1. Determine the appropriate volumes of DNA, water, buffer(s) and enzyme for digesting the necessary amount of plasmid; explain the rationale behind the specific conditions chosen for the enzyme digest
2. Calculate the amount of any particular restriction fragment to be generated from the digest of a given amount of plasmid on which the restriction sites are known.
3. Determine with reasonable accuracy the size of a DNA fragment using agarose gel electrophoresis
4. Describe and carry out alternative methods for purifying fragments of DNA from common "Contaminants"(other DNA fragments, proteins and enzymes, RNA, agarose and salts)
5. Determine the approximate concentration of fragmented plasmid DNA using gel electrophoresis with ethidium bromide stating and typical DNA standards
6. Explain the use of alkaline phosphatase in the preparation of cloning vectors.
7. Describe several strategies for creating compatible ends.
8. Explain the difference between and consequences of directional vs. non-directional cloning.

9. Setup a ligation reaction, including appropriate controls. Explain the rational for selecting particular parameters for the reaction (DNA concentration, vector:insert ratio, amount of enzyme, buffer components, time and temperature of the reaction, and controls).
10. Transform competent bacteria with ligated plasmid, including appropriate controls.
11. Plate transformed bacteria. Determine transformation efficiency.
12. Pick colonies to prepare “mini-preps” of plasmid DNA for analysis.
13. Plan and carry out restriction digests that twill allow analysis of transformation results (identify clones containing insert and determine the orientation of the insert with respect to the vector sequence).
14. Carry out capillary transfer of DNA to nitrocellulose or nylon membranes, and demonstrate understanding of the principles and practices involved. Describe at least two methods for labeling DNA, and also for detection of labeled probes. Carry out hybridization, wash and detection of DNA probe on Southern Blot.
15. Setup, carry out and interpret the results of a PCR reaction designed to identify clones containing insert, and determine the orientation of insert with respect to the vector sequence.
16. Purify plasmid from cultured bacteria in large scale using ultracentrifugation in CsCl.
17. Interpret, research and describe a technical innovation in cloning strategy promoted by one of the molecular biology material suppliers.

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 205
Current Course Title:	Bioseparations I

	Current	Proposed
Lecture Hours:	2/20	1/10
Lab Hours:	2/60	0
Lec/Lab Hours:	0	4/80
Total Contact Hours:	8	9
Credits:	4	5

Reason for Change:	Additional time needed for completion of separation procedures. Shift of lab hours to lec-lab more accurately reflects the nature of the course and the work expected outside of the contact hours (for both student and instructor), and is consistent with other courses of similar level in the program.
Are outcomes affected?:	NO
Are degrees/certs affected?:	YES
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Implem. Term:	Fall
Implementation Year,Implem. Year:	2008
Contact Name:	Kendra Cawley
Contact Email:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 205
Current Course Title:	Bioseparations I
Proposed Course Title:	Bioseparations
Proposed Transcript Title:	Bioseparations
Reason for Title Change:	A change is proposed to Biosparations II to make it Protein Purification; the "I" thus needs to be removed.
Current Description:	First part of a two-term sequence. Laboratory-intensive course in which commonly used methods for separating biological molecules for both analytical and preparative applications will be introduced. Electrophoretic and chromatographic techniques will be emphasized. Prerequisites: CH 106 or 223, and BIT 109 or permission of instructor.
Proposed Description:	Introduction of commonly used methods for separation biological molecules for both analytical and preparative applications. This laboratory-intensive course will cover the principles of and practice in filtration, differential precipitation, and electrophoretic and chromatographic techniques. Prerequisites: BIT 109 or 110; and any one of the following: BIT 155, BI 112, CH 100 or higher; or instructor permission.
Reason for Description Change:	Removal of reference to two-term sequence and more specific indication of content. Change to prerequisites allows more options for students while meeting the need for sufficient background in chemistry to succeed in this course.
Current Learning Outcomes:	Carry out selected projects illustrating protein purification methods based on different molecular properties Report procedures, results and interpretation in standard forms of scientific communication (laboratory notebook, written report, casual and/or formal oral communication) Develop teamwork and communication skills Demonstrate working knowledge of key concepts and terminology of separation techniques and principles.

Proposed Learning Outcomes:	Carry out separations of biological molecules using methods based on filtration, differential precipitation, electrophoresis and chromatography Record and report the procedures, results and interpretation of these separations in standard forms of scientific communication ((laboratory notebook, written report, casual and/or formal oral communication) Use knowledge of bioseparation principles to troubleshoot unexpected results and suggest solutions Work effectively as part of a team in the execution and reporting of bioseparation procedures
Reason for Learning Outcomes Change:	Revised to better reflect the “out there” nature of outcomes
Current Prerequisites:	CH 106 or 223, and BIT 109 or permission of instructor.
Proposed Prerequisites:	BIT 109 or 110; and any one of the following: BIT 155, BI 112, CH 100 or higher; or instructor permission.
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 207	
Current Course Title:	Tissue Culture I	
	Current	Proposed
Current Lecture Hours:	2/20	2/20
Current Lab Hours:	2/60	3/90
Total Contact Hours:	8	11
Current Credits:	4	5
Reason for Change:	Cell-culture is labor-intensive, and the cells have to be checked, fed and sub-cultured more frequently than twice per week. The additional lab time will more accurately fit the time students spend in lab.	
Are outcomes affected?:	NO	
Are degrees/certs affected?:	No	
Is there an impact on other Dept/Campus?:	NO	
Impact on Dept/Campus:		
Is there potential conflict with another SAC?:	NO	
Impact on SACs:		
Implem. Term:	Fall	
Implementation Year,Implem. Year:	2008	
Contact Name:	Kendra Cawley	
Contact Email:	kcawley@pcc.edu	

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 207
Current Course Title:	Tissue Culture I
Proposed Course Title:	Cell Culture
Proposed Transcript Title:	Cell Culture
Reason for Title Change:	New title is more accurate and removal of ?I? is indicated because the ?II? Course has been removed from the curriculum.
Current Description:	First term of a two-term laboratory-intensive course offering training and practical experience in the fundamentals of the culture of plant and animal cells. Prerequisite: BIT 109; BI 234 or equivalent.
Proposed Description:	Laboratory- intensive course providing introduction to and practice in the culture of animal cells and cell lines. Focus is on routine maintenance and record-keeping, including media preparation, cryopreservation, and troubleshooting common culture problems. BIT 109 or 110 or instructor permission.
Reason for Description Change:	New description is more specific and reflects course content more accurately. Removal of reference to a second course reflects program revision. BI 234 (Microbiology) can be omitted from the prerequisites because it is more than is needed to understand about and work successfully in a clean (aspetic or sterile) field.
Current Learning Outcomes:	Establish and manage a tissue culture laboratory. 1. Create a cell culture procedure notebook detailing procedures used to set up and manage a cell culture laboratory. 2. Maintain both adherent and suspension cell lines without contamination. Demonstrate the ability to freeze and thaw cells, and keep appropriate laboratory records 3. Demonstrate knowledge and understanding of tissue culture principles, and the application of these principles in troubleshooting problems. 4. Explore effects of variables in culture conditions on cell proliferation with appropriate assay techniques.
Proposed Learning Outcomes:	Successfully maintain cultures of animal cells and established cell lines with good viability, minimal contamination and appropriate

	documentation Perform supportive or episodic tasks relevant to cell culture, including preparation and evaluation of media, cryopreservation and recovery, and assessment of cell growth/health. Recognize and troubleshoot problems common to routine cell culture.
Reason for Learning Outcomes Change:	Prior outcomes overestimated reasonable expectations for one terms worth of study. Revised outcomes more specifically reflect the content and expectation of this course.
Current Prerequisites:	BIT 109; BI 234 or equivalent.
Proposed Prerequisites:	BIT 109 or 110 or instructor permission.
Will this impact other SACs?,Is there an impact on other SACs?:	No
How other SACs may be impacted:	Course used to require BI 234, but impact on enrollment was miniscule compared to that other health-related programs (nursing etc), and the BIT has been dormant for several years.
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	no
How other Depts/Campuses will be impacted:	
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 215	
Current Course Title:	Bioseparations II	
	Current	Proposed
Lecture Hours:	2/20	1/10
Lab Hours:	3/90	0
Lec/Lab Hours:	0	4/80
Total Contact Hours:	11	9
Credits:	5	5
Reason for Change:	Shift of lab hours to lec-lab more accurately reflects the nature of the course and the work expected outside of the contact hours (for both student and instructor), and is consistent with other courses of similar level in the program.	
Are outcomes affected?:	YES	
Are degrees/certs affected?:	No	
Is there an impact on other Dept/Campus?:	NO	
Impact on Dept/Campus:		
Is there potential conflict with another SAC?:	NO	
Impact on SACs:		
Implem. Term:	Fall	
Implementation Year,Implem. Year:	2008	
Contact Name:	Kendra Cawley	
Contact Email:	kcawley@pcc.edu	

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 215
Current Course Title:	Bioseparations II
Proposed Course Title:	Protein Purification
Proposed Transcript Title:	Protein Purification
Reason for Title Change:	More accurately reflecting content. This course combines several bioseparation techniques, but the focus is the combination of multiple steps in a purification protocol
Current Description:	Second term of a two-term sequence. Laboratory-intensive courses in which commonly used methods for separating biological molecules for analytical and preparative applications will be combined in the purification of specific proteins from complex sources. Prerequisite: BIT 205.
Proposed Description:	Application of commonly used methods for separation of biological molecules in multi-step protein purifications. This laboratory-intensive course will focus on issues of recovery and yield, step-to step analysis and troubleshooting, as well as documentation and reporting of procedures and results. Prerequisite: BIT 205 or instructor permission.
Reason for Description Change:	Removal of reference to two term sequence and describe content in more detail.
Current Learning Outcomes:	Carry out a multi-step purification procedure to isolate a single protein from a complex mix, using an established protocol. Report procedures, results and interpretation in standard forms of scientific communication (laboratory notebook, written report, casual and/or formal oral communication) Develop teamwork and communication skills.
Proposed Learning Outcomes:	♣ Carry out a multi-step purification procedure to isolate a single protein from a complex mix, using established protocols ♣ Record and report the procedures, results and interpretation of these separations in standard forms of scientific communication (laboratory notebook, written report, casual and/or formal oral communication)

	♣ Use knowledge of bioseparation principles to troubleshoot unexpected events and devise appropriate solutions ♣ Work effectively as part of a team in the execution and reporting of protein purification procedures
Reason for Learning Outcomes Change:	Revised to reflect the extension of outcomes from prerequisite course, BIT 205
Current Prerequisites:	Prerequisite: BIT 205
Proposed Prerequisites:	BIT 205 or instructor permission
Proposed Corequisites:	
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Contact/Credit Hour Change

Current Course Number:	BIT 223
Current Course Title:	Techniques in Molecular Biology II

	Current	Proposed
Lecture Hours:	2/20	1/10
Lab Hours:	2/60	0
Lec/Lab Hours:	0	4/80
Total Contact Hours:	9	9
Current Credits:	4	5

Reason for Change:	Shift of lab hours to lec-lab more accurately reflects the nature of the course and the work expected outside of the contact hours (for both student and instructor), and is consistent with other courses of similar level in the program. Additional contact hour will facilitate completion of lab procedures.
Are outcomes affected?:	NO
Are degrees/certs affected?:	No
Is there an impact on other Dept/Campus?:	NO
Is there potential conflict with another SAC?:	NO
Impact on SACs:	To my knowledge there is no content overlap with existing courses in any other SAC, though I have heard indirectly that some interest has been expressed with regards to teaching aspects of Bioinformatics in CIS. Since the term can be broadly or tightly defined, there may need to be consultation between CIS and BIT for clarification of specific content, appropriate prerequisites, and student expectations. However, bioinformatics, in the sense of sequence searching and comparison against the large public databases, has been a component of this course since its

inception (in 1994).

Implem. Term:	Fall
Implementation Year,Implem. Year:	2008
Contact Name:	Kendra Cawley
Contact Email:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Requisites,Learning Outcomes
Current Course Number:	BIT 223
Proposed Course Number:	
Current Course Title:	Techniques in Molecular Biology I
Proposed Course Title:	Advanced DNA Techniques
Proposed Transcript Title:	Advanced DNA Techniques
Reason for Title Change:	Formerly the second of a I, II sequence. The “I” was removed from the first course to make its content more clear. The content in this course is more difficult to categorize, and these techniques are generally considered to be a second tier of molecular biology expertise.
Current Description:	Second term of a two-term laboratory-intensive course focusing on the theory and practice of techniques for analysis and manipulation of nucleic acids. Emphasizes DNA sequence determination analysis of DNA sequence data, construction and use of plasmid and phage libraries. Prerequisite: BIT 221.
Proposed Description:	Laboratory-intensive course focusing on the theory and practice of techniques for analysis and manipulation of nucleic acids. Topics include construction and use of plasmid and phage libraries, DNA sequence determination and analysis, bioinformatics, and applications of PCR. Prerequisite: BIT 203 or instructor permission
Reason for Description Change:	Omits reference to two- term course; expand upon content, calling out bioinformatics and PCR. Prerequisite change is due to number change of BIT 221 to 203.
Current Learning Outcomes:	Working from biological material, produce a selected region of DNA for cloning and analysis Demonstrate working knowledge of key concepts and terminology of a variety of selected molecular biology techniques and principles. Be able to use standard DNA manipulation software.
Proposed Learning Outcomes:	Working from biological material, produce a selected region of DNA for sequence analysis and/or cloning. Screen a plasmid or phage library

	Interpret reports of library-based gene identification and cloning in the primary literature
	Use standard bioinformatics software for DNA analysis, searches and comparisons among DNA and protein sequences.
Reason for Learning Outcomes Change:	Refocus outcomes to what students should be able to do “out there” as opposed to “in here”
Current Prerequisites:	BIT 221
Proposed Prerequisites:	BIT 203
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	fall
Requested Year:	2008
Contact Name:	Kendra Cawley
Contact E-Mail:	kcawley@pcc.edu

Curriculum Request Form
Course Revision

CHANGE:	Course Title,Course Description,Learning Outcomes
Current Course Number:	PS 111
Proposed Course Number:	PS 111
Current Course Title:	Skills and Issues: Foundations
Proposed Course Title:	Skills and Issues
Proposed Transcript Title:	Skills and Issues
Reason for Title Change:	This makes the course clearly able to be taught concurrently with either P.S. 201 or 202.
Current Description:	Designed to deepen understanding of P.S. 201 "U.S. Government: Foundations and Principles", including interactive tutorials, student skills building exercises, and community-based projects.
Proposed Description:	Designed to deepen understanding of U.S. Government while being taken concurrently with P.S. 201 or P.S. 202. Includes interactive tutorials, student skills building exercises, and community-based projects.
Reason for Description Change:	To allow this PS 111 (one credit) course to be taken in tandem with either P.S. 201 or P.S. 202 (in a manner similar to HST 111 in relation to HST 201, 202, or 203).
Current Learning Outcomes:	* improve understanding of "U.S. Government" course concepts and content, while concurrently enrolled in a regular 4-credit PS 201 "U.S. Government: Foundations and Principles" course at PCC. * increase performance levels on course exams and assignments associated with PS 201 courses taught by various instructors at PCC. * develop critical thinking skills which a) recognize the relationship of political experience to political empowerment, b) appreciate the contribution of diverse groups and ideas to politics in the U.S., and c) include making personal value judgments to evaluate political relationships and their impacts on society.

Proposed Learning Outcomes:	* improve understanding of "U.S. Government" course concepts and content, while concurrently enrolled in a regular 4-credit PS 201 "U.S. Government: Foundations and Principles" or PS 202 "U.S. Government: Institutions and Policies" course at PCC. * increase performance levels on course exams and assignments associated with PS 201 or PS 202 courses taught by various instructors at PCC. * develop critical thinking skills which a) recognize the relationship of political experience to political empowerment, b) appreciate the contribution of diverse groups and ideas to politics in the U.S., and c) include making personal value judgments to evaluate political relationships and their impacts on society.
Reason for Learning Outcomes Change:	Again, to make PS 11 ale to be taken in tandem with either PS 201 or PS 202, in a manner consistent with the way HST 11 may be taken with HST 201, 202, or 203.
Current Prerequisites:	None
Proposed Prerequisites:	None
Current Prerequisites/Concurrent:	concurrent enrollment in 201
Proposed Prerequisites/Concurrent:	concurrent enrollment in 201 or 202
Current Corequisites:	None
Proposed Corequisites:	None
Will this impact other SACs?,Is there an impact on other SACs?:	No
Will this impact other Depts/Campuses?,Is there an impact on another dept or campus?:	No
Request Term:	winter
Requested Year:	2008
Contact Name:	Michael Sonnleitner
Contact E-Mail:	msonnlei@pcc.edu

Curriculum Request Form
New Course

Course Number:	WR 105
Course Title:	Writing for Scholarships
Transcript Title:	Writing for Scholarships
Lecture Hours:	10
Load Total:	.068
Weekly Contact Hours:	10
Total Credits:	1
Reason for New Course:	This course if part of a new learning community designed to help students get scholarship funding for college. (This will help our own students pay for PCC classes as well as pay for funding a transfer to a university.) WR 105 deals specifically with writing essays and other written communication required in the competitive scholarship process.
Course Description:	Explore the essay as a means of inquiry and persuasion in the scholarship application process. Students will write, revise and discuss essays on educational goals, life history and other topics relevant to competitive scholarship applications.
Prerequisite(s):	Placement into WR 115 or instructor approval
Prereq/Concurrent:	None
Corequisite(s):	Concurrent enrollment in CG 105
Learning Outcomes:	Upon successful completion of this course, students will demonstrate ability to: ? Identify purpose and audience for specific scholarship essays ? Evaluate essays for clarity and quality ? Write and revise effective essays for competitive scholarships
Course Format:	On Campus
Course Format:	Online
Other Format:	

Are there similar courses existing:	NO
Description of existing courses:	
Required or Elective:	Elective
Is there impact on degrees or certificates:	NO
Is there an impact on another dept or campus?:	YES
Description of impact on dept/campus:	As part of a Learning Community, WR 105 is linked with CG 105 Scholarships: Finding $ for College and should be offered concurrently.
Have other SACs been contacted?:	YES
Description of Contact:	I have been in contact with the CG instructor and CG SACC chairperson about concurrent enrollment, as well as the course approval process.
Is there an increase in costs for Library or AV Dept?:	NO
Implementation Term:	Winter
Implementation Year:	2008
Contact Name:	Stephen Mainville
Contact E-mail:	smainvil@pcc.edu

Course Content and Outcome Guide for WR 105

DATE: 8/27/07
COURSE NUMBER: WR 105
COURSE TITLE: Writing for Scholarships
CREDIT HOURS: 1

LECTURE HOURS: 10
LECTURE/LAB HOURS:
LAB HOURS

SPECIAL FEE:

COURSE DESCRIPTION and PREREQUISITES:

This course will explore the essay as a means of inquiry and persuasion in the scholarship application process. Students will write, revise and discuss essays on educational goals, life history and other topics relevant to competitive scholarship applications.

Prerequisites: Placement into WR 115 or instructor approval; Co-requisite: This class is linked with *CG 105 - Scholarships: Finding $ for College*. Students must enroll in both courses concurrently.

ADDENDUM TO COURSE DESCRIPTION:

This course will include information and activities relating to the OSAC (Oregon Scholarship Association Commission) scholarships process targeting Oregon residents.

INTENDED OUTCOMES:

Upon successful completion of this course, students will demonstrate ability to:

- Identify purpose and audience for specific scholarship essays
- Evaluate essays for clarity and quality
- Write and revise effective essays for competitive scholarships

COURSE ACTIVITES AND DESIGN:

Activities will include lecture and discussion, in-class and out-of-class writing, essay review and critique, and essay revision. Students will conference with the instructor outside of class by arrangement.

OUTCOME ASSESSMENT:

The instructor will assess the student using in-class and out-of-class writing assignments, group discussion and individual conferencing. Assessment methods will include:

- Written and revised short essays demonstrating self-analysis and audience analysis
- Discussion of audiences for scholarship essays
- Peer review of essays for effectiveness
- Utilization of appropriate scholarship submission formats (e.g. formal letter, on-line submission form, etc.)

Additional assessment methods may include presentations, portfolios, and/or journaling.

COURSE CONTENT (Themes, Concepts, Issues) and SKILLS:

General composition concerns such as: audience, purpose, process, style and mechanics. Self-analysis relevant to competitive scholarships including evaluating academic and life skills, career plans, community involvement, etc. Persuasive writing for targeted academic and financial audiences. Effective delivery of written scholarship application materials.