Print Caution: This document is 113 pages long. Select only pages 1-6 if you want the abbreviated agenda.

CURRICULUM/GEN ED COMMITTEE

a standing committee of the Educational Advisory Council

Minutes
May 4, 2005 - 3:00 pm
Sylvania, CC – Conference Room B

Informational Items from the Curriculum Office:

(These items do not require curriculum committee recommendation)

- Experimental Course Requests
  - None this month
- Course Inactivations
  - MSD 102 – Communication for Results
  - MSD 114 – Rapport/Relationships: Key to Sales
  - MSD 116a – Organizations and Social Responsibility
  - MSD 117a – Finance for Non Financial People
  - MSD 118 – Non-Productive Conduct
  - MSD 119 – Emotional Intelligence in the Workplace
  - MSD 124 – Mediation: How and Why it Works
  - MSD 127 – Increasing Human Effectiveness
  - MSD 129a – Putting Myers-Briggs to Work
  - MSD 132 – Manage Disagreements Constructively
  - MSD 136 – Prepare/Deliver Effective Training
  - MSD 137 – Team Dynamics/Problem Solving
  - MSD 138 – Championship Sales Strategies
  - MSD 139a – How to Fight Fair
  - MSD 140c – Core competencies
  - MSD 141a – The Time-Stress-Communication Triangle
  - MSD 141c – Business Grammar
  - MSD 142b – Thriving in Transition
  - MSD 143 – Working Smarter, Not Harder
  - MSD 145a – Supervision and Retention of Volunteer Staff
  - MSD 153b – Self Directed Teams
  - MSD 154b – ADA: Workplace Interpretation
  - MSD 155a – Creative Thinking
  - MSD 159a – Recruiting, Interviewing and Placing Volunteers
  - MSD 163a – Empowering Others in the Workplace
  - MSD 164a – Facilitating the Continuous Improvement Process
  - MSD 167b – Avoiding Stress Burnout
  - MSD 179a – Improving Work Relations
  - MSD 182a – Telephone Skills for the Professional
  - MSD 185b – Writing that Works
  - MSD 186a – Cultural Diversity in Communication
  - MSD 186b – Professional Writing II
  - MSD 189 – Coaching and Assisting Other Employees
  - MSD 193b – Successful Employee Interviewing
  - MSD 195a – The Basics of ISO 9000
- Distance Learning
  - None this month

OLD BUSINESS

285. BA 177 – Payroll Accounting
Description Change: remove BA96 from recommended courses
If BA 96 is not being offered, a request for inactivation needs to be submitted.
Postponed due to lack of representation.
286. BA 210 – Advanced Accounting Spreadsheet Application
Description Change: remove BA96 from recommended courses
If BA 96 is not being offered, a request for inactivation needs to be submitted.
Postponed due to lack of representation.
287. BA 215 – Basic Cost Accounting
Description Change: remove BA96 from recommended courses
If BA 96 is not being offered, a request for inactivation needs to be submitted.
Postponed due to lack of representation.
288. BA 228 – Computer Accounting Applications
Description Change: remove BA96 from recommended courses
If BA 96 is not being offered, a request for inactivation needs to be submitted.
Postponed due to lack of representation.
289. BA211 – Principles of Accounting I
Description Change: Add "Recommend familiarity with spreadsheet applications such as Excel"
Postponed due to lack of representation.
290. BA 212 – Principles of Accounting II
Description Change: Add "Recommend familiarity with spreadsheet applications such as Excel"
Postponed due to lack of representation.

NEW BUSINESS

296. GD 170 – Photoshop and Design Basics
New Course

297. BIT 165 – Biotechniques: Recombinant DNA
New Course
298. BIT 175 – Biotechniques: Protiens
New Course

299. CIS 145 – Microcomputer Hardware and Troubleshooting
New Course

300. HST 284 – History of Africa
New Course
301. HST 284 – History of Africa
Gen/Ed; List A; Diversity Designation
302. HST 104 – History of Eastern Civilization: The Middle East
Description Change: See request for details
303. HST 105 – History of Eastern Civilization: India and Subcontinent
Description Change: See request for details
303a. HST 106 - History of Eastern Civilizations: East Asia
Description Change: See request for details
304. HST 285 – The Holocaust
Description Change: See Request for Details

305. HST 101 –Western Civilization: ancient World to 1200
    Title Change: Western Civilization: Ancient World to Medieval
    Description Change: See Request for Details
306. HST 102 – Western Civilization: Medieval to Early Modern Europe
    Description Change: See Request for Details
307. HST 279 – Russian History
    Description Change: See Request for Details

308. HUM 221 – Leadership Through the Classics
    Title Change: Leadership Development
    Prerequisites
        Current: Students must be at or beyond the WR 121 level to take this course. In addition, students should possess sufficient oral skills to fully participate in small group activities.
        Proposed: College level reading and writing scores, or completion of WR 115 with a C or higher grade.
    Description Change: See full request for details
    Outcomes Change: See full request for details

309. MTH 10b – Fundamentals of Arithmetic I
    Description Change: See request for details
310. MTH 10c – Fundamentals of Arithmetic I
    Description Change: See request for details
    Outcomes Change: See request for details
311. MTH 11b – Fundamentals of Arithmetic II
    Description Change: See request for details
312. MTH 11c – Course Description
    Description Change: See request for details
313. MTH 20 – Basic Math
    Description Change: See request for details
    Outcomes Change: See request for details
314. MTH 20b – Basic Math
    Description Change: See request for Details
    Outcomes Change: See Request for Details

315. MT 110 – Introduction to Microelectronics
    Course Number Change: MT 100
316. MT 222 – Process Control in Semiconductor Manufacturing
    Title Change: Quality Control Methods in Manufacturing
    Description Change: See Request for Details
    Prerequisite Change: Current – None
        Proposed – MTH 243, WR 227
317. MT 222 – Process Control in Semiconductor Manufacturing
    Contact/Credit Change: From 2 Lecture to 3 Lecture
318. MT 223 – Vacuum Technology
    Description Change: See Request for Details
    Prerequisite Change: Current – MT 110, MT 111, CH 221
        Proposed – MT 100, MT 113, CH 222, WR 227
319. MT 200 – Semiconductor Processing
    Description Change: See Request for Details
    Prerequisite Change: Current – MT 223, CH 222
        Proposed – MT 223, MT 240, CH 222, SP 130

320. MT 100 – Basic Electronics
    Course Number: MT 90
321. MT 240 – RF Plasma Systems
        Prerequisite Change: Current – MT 223, CH 223
        Proposed – MT 223, MT 224, CH 222, WR 227
322. MT 101 – Cleanroom Safety and Protocol
    Number Change: MT 80
    Title Change: Safety and Cleanroom Protocol
323. MT 227 – Process Equipment
    Prerequisite Change: Current – MT 224
        Proposed – MT 224, MT 223

324. CIS 133G – Introduction to Computer Games
    New Course
325. CS 233G – Game Programming
    New Course
326. CST 115 – Introduction to Object-Oriented Software Engineering
    Course Number: CIS 115
327. CST 116 – Object-Oriented Software Development
    Course Number: CIS 116
    Prerequisite Change: Current – CST 115, MTH 95 and departmental permission
        Proposed – CIS 115 and MTH 95
328. CST 126 – Object-Oriented Software Methodology
    Course Number: CIS 126
    Prerequisite Change: Current – CST 211 and MTH 231
        Proposed – CIS 211 and MTH 231
329. CST 140S – Perl Scripting
    Course Number: CIS 140S
330. CST 211 – Object-Oriented Data Abstraction
    Course Number: CIS 211
    Prerequisite Change: Current – CST 116, MTH 231, and WR 122 or WR 214
    Proposed – CIS 116 and WR 121
331. CST 250 – Advanced Assembly Language Programming
    Course Number: CIS 250
    Prerequisite Change: Current – CST 116, EET 241, WR 227, or departmental permission
        Proposed – EET 241 or departmental permission
332. CST 256 – Introduction to Systems Software Development
    Course Number: CIS 256
    Prerequisite Change: Current – CST 126, CST 140, WR 227
        Proposed – CIS 126 and CS 140U or departmental permission
333. CST 258 – Object-Oriented GUI Software Development
    Course Number: CIS 258
    Prerequisite Change: Current – CST 126 and WR 227
        Proposed – CIS 126 or departmental permission
334. CST 264 – C# Multi-tier .NET Architecture Software Development
    Course Number: CIS 264
    Prerequisite Change: Current – CST 263 and WR 227
        Proposed – CIS 258 or departmental permission
335. CST 266 – Introduction to Embedded Software Development
    Course Number: CIS 266
    Prerequisite Change: Current - CST 250, CST 256

Proposed – CIS 250 and CIS 256 or departmental permission

336. CST 268 – Object-Oriented Multithreaded Software Development
    Course Number: CIS 268
    Prerequisite Change: Current - CST 258 and WR 227
        Proposed – CIS 258 or departmental permission
337. CST 272 – Software Development Team Project: Deployment
    Course Number: CIS 272
    Prerequisite Change: Current – CST 270
        Proposed – CIS 270 or departmental permission

338. PHL 211 – Existentialism
    New Course
339. PHL 211 – Existentialism
    Gen/Ed; List A Designation

340. AMT 225 - A&P Practicum/Powerplant
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
341. AMT 109 – Assembly & Rigging
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
342. AMT 115 – Aircraft Structures & Inspections
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
343. AMT 117 – Reciprocating Engine Theory & Maintenance
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
344. AMT 120 – Propellers & Engine Installation
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
345. AMT 121 – Turbine Engine Theory & Maintenance
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
346. AMT 123 – Ignition Systems
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
347. AMT 124 – Fuel Metering Systems
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
348. AMT 208 – Aircraft Systems
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
349. AMT 211 – Composite Structures
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
350. AMT 212 – Sheet Metal
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
351. AMT 213 – Hydraulics Pneumatics & Landing Gear
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204

352. AMT 214 – Instruments, Communication & Navigation Systems
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
353. AMT 216 – A&P Practicum/Airframe
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
354. AMT 218 – Powerplant Inspection
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
355. AMT 219 – Turbine Engine Overhaul
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204
356. AMT 222 – Reciprocating Engine Overhaul
    Prerequisite Changes: Replacing Math course prerequisites with department placement test or MTH 60; Change AMT 101 to AMT 203 & 204

Discussion: Spanish Courses - Description Addition

4 Credit Subcommittee Report (Click here for website)

Curriculum Course Revision Form
Course Changes for Number, Title, Description, Prerequisites, and Outcomes

Change:	Description (Requisites)
Current course number:	BA 177
Current course title:	Payroll Accounting
Current description:	no change.
Proposed description:	Remove BA 96 from the list of recommended courses.
Reason for description change:	BA 96 Accelerated Computerized Accounting is not being actively offered at any PCC Campus.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Geoff Boice
Contact e-mail:	gboice@pcc.edu

Curriculum Course Revision Form
Course Changes for Number, Title, Description, Prerequisites, and Outcomes

Change:	Requisites
Current course number:	BA 210
Current course title:	Advanced Accounting Spreadsheet Application
Current description:	no change.
Proposed description:	Remove BA 96 from the list of recommended courses.
Reason for description change:	BA 96 Accelerated Computerized Accounting is not being actively offered at any PCC Campus.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Geoff Boice
Contact e-mail:	gboice@pcc.edu

Curriculum Course Revision Form
Course Changes for Number, Title, Description, Prerequisites, and Outcomes

Change:	Requisites
Current course number:	BA 215
Current course title:	Basic Cost Accounting
Current description:	no change.
Proposed description:	Remove BA 96 from the list of recommended courses.
Reason for description change:	BA 96 Accelerated Computerized Accounting is not being actively offered at any PCC Campus.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Geoff Boice
Contact e-mail:	gboice@pcc.edu

Curriculum Course Revision Form
Course Changes for Number, Title, Description, Prerequisites, and Outcomes

Change:	Requisites
Current course number:	BA 228
Current course title:	Computer Accounting Applications
Current prerequisites:	BA 96 or BA 211 or instructor permission
Proposed prerequisites:	none
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	yes This course is offered at Cascade, RC and Sylvania.
Implementation term:	summer
Implementation year:	2005
Contact name:	Geoff Boice
Contact e-mail:	gboice@pcc.edu

Curriculum Course Revision Form
Course Changes for Number, Title, Description, Prerequisites, and Outcomes

Change:	Description (Requisites)
Current course number:	BA 211
Current course title:	Principles of Accounting I
Current description:	no change-just adding a recommended course.
Proposed description:	No change. Adding: Recommend familiarity with spreadsheet applications such as Excel.
Reason for description change:	Much of the homework students are required to do can be done with the use of spreadsheet applications and by knowing excel students will enhance their learning of the course materials.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Geoff Boice
Contact e-mail:	gboice@pcc.edu

Curriculum Course Revision Form
Course Changes for Number, Title, Description, Prerequisites, and Outcomes

Change:	Requisites
Current course number:	BA 212
Current course title:	Principles of Accounting II
Current description:	no change-just adding a recommended course.
Proposed description:	No change. Adding: Recommend familiarity with spreadsheet applications such as Excel.
Reason for description change:	Much of the homework students are required to do can be done with the use of spreadsheet applications and by knowing excel students will enhance their learning of the course materials.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Geoff Boice
Contact e-mail:	gboice@pcc.edu

Curriculum Request Form
New Course

Course number:	GD 170
Course title:	Photoshop and Design Basics
Transcript title:	Photoshop and Design Basics
Lecture hours:	
Lab hours:	
Lec/lab hours:	40
Load total:	.08
Weekly contact hours:	
Total credits:	2
Reason for new course:	There is a need to balance the technical aspects of photo imaging software with an understanding of aesthetic principles in order to produce work that looks good. This course has been taught under a 199 status for several years. Its experimental status has expired.
Course description:	Introductory Photoshop tools and techniques combined with basic design and composition principles. Ideal for learning digital photo page layout and design. Macintosh experience highly recommended.
Learning outcomes:	At the completion of the course students will be able to design and produce a multi-layered photo layout page demonstrating the principles of successful eyeflow and hierarchy.
Course format:	On Campus
Are there similar courses existing:	YES - yes and no. The computer program Adobe Photoshop is taught in other departments at PCC, but this course is different because it combines design theory curriculum with learning the software.
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 - I've contacted Art Schneider, Michael Cleghorn and Thom Perry.

Is there an increase in costs for library or av dept?:	NO
Implementation term:	Summer
Implementation year:	2005
Contact name:	Cece Cutsforth
Contact e-mail:	ccutsfor@pcc.edu

This CCOG has not been submitted electronically.

Curriculum Course Request
New Course

Course number:	BIT 165
Course title:	Biotechniques: Recombinant DNA
Transcript title:	Biotechniques: Recombinant DNA
Lecture hours:	3 cr
Lab hours:	1 cr
Lec/lab hours:	
Load total:	0.342
Weekly contact hours:	6
Total credits:	4

Reason for new course:

When the Biotechnology Laboratory Technician program was parked as a result of the budget cuts of 02-04, the administration determined that BIT courses might still be offered under Rock Creek s Biology department, assuming adequate enrollment. The established courses were not appropriate to run in this way, because they were big courses (many lab hours, hard to market to students), and they depended on a BIT prerequisite that could only be offered once a year. For this year, I developed three 199 courses that would cover the main focus areas of DNA, proteins, and cell culture/antibody techniques, and could be offered to students who have a bit of Biology and Chemistry, to give them some experience in authentic and valuable laboratory techniques. It is also possible that this course, which introduces techiques that are used also in human DNA analysis, yet stands by itself as a single term introduction to DNA technqieus, might be of interest to students who are studying Criminal Justics or MLT. Each of these has an introductory component tailored to the specific area covered, so that a student can start with any one of the three. These courses have had respectable enrollment, and the strategy of splitting the introductory material up in this fashion seems satisactory. We are working on a proposed revision of the program that might allow it to become unparked , and envision these courses as part of the new design. A note on the recommendations in place of prerequisites: For the 199s, the suggested recommended courses were put in as prerequisites, and I am nearly certain that our enrollment would have been even better if this had not been the case. Most of the students who took the class were taking their first PCC class and had prior course work that went substantially beyond the stated minima. However, I could not even unlock the prereqs until they had gotten into the PCC system, and I know that a few people I talked to just gave up. I also considered WR, RD and MTH prerequisites, but decided against them for similar reasons. Also, has been my experience

	that foreign students whose English skills are not strong often have compensatory skills and experience in science to do very well anyway. The math involved tends to not be very sophisticated (exponents and logs), just tricky to learn to apply, and that skill is noted in the CCOG and embedded in the outcomes.
Course description:	This course will give students authentic hands-on experience in recombinant DNA work. Students will learn the basic principles, strategies and techniques that are the essential tools for molecular biology. These include the preparation of plasmid vector and insert DNA, transformation , plasmid purification, and analysis of constructs from restriction patterns, Southern blot hybridization and PCR. Recommended: BI 101 or 211 and CH 100, 104 or 221.
Prerequisite(s):	None
Learning outcomes:	Students successfully completing this course will be able to: Plan and carry out the steps and procedures used to prepare and subclone recombinant constructs of DNA; understand the purpose of each step within the context of the construction. Interpret the results of analytical methods used to evaluate stages of DNA subcloning. Prepare solutions and reagents to support DNA techniques
Course format:	On Campus
Are there similar courses existing:	NO
Required or elective:	Elective
Is there impact on degrees or certificates:	NO
Description of impact on deg/cert:	Not at this time -- see above.
Is there an impact on another dept or campus?:	NO
Description of impact on dept/campus:	At least, that seems unlikely. It is possible that some students might take this as an elective instead of another science course, but on the other hand, they might take more science as a result of interest in this area.

Have other sacs been contacted?:	YES
Description of contact:	Biology and Chemistry SACs have been contacted to make sure there are no concerns. There appears to be no overlap with any courses listed in CJA or MLT (DNA techniques are not listed among the courses in areas in the catalog).
Is there an increase in costs for library or av dept?:	NO
Implementation term:	Fall
Implementation year:	2005
Contact name:	Kendra Cawley
Contact e-mail:	kcawley@pcc.edu

DATE: April 15, 2005

PREPARED BY: Kendra Cawley

COURSE NUMBER: BIT 165

COURSE TITLE: **Biotechniques: Recombinant DNA**

CREDIT HOURS: 4

LECTURE HOURS PER WEEK: 3

LAB HOURS PER WEEK: 3

NUMBER OF WEEKS: 10

SPECIAL FEE: $ 8 (laboratory fee)

COURSE DESCRIPTION FOR PUBLICATION:
This course will give students authentic hands-on experience in recombinant DNA work. Students will learn the basic principles, strategies and techniques that are the essential tools for molecular biology. These include the preparation of plasmid vector and insert DNA, transformation , plasmid purification, and analysis of constructs from restriction patterns, Southern blot hybridization and PCR. Recommended: BI 101 or 211, CH 104 or 221, MTH 95.

PREREQUISITES: None

ADDENDUM TO DESCRIPTION:

A major and routine activity in recombinant DNA technology involves moving a segment of DNA from one place, usually a plasmid or phage, to another, usually a plasmid or perhaps a modified virus. One then isolates and characterizes the product. This operation (subcloning to create new "constructs, or new combinations of DNA sequences) is critical for basic research as well as research and development of new products 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 procedure, analysis of the results, are more involved, and require facility with the principles and strategies along with necessary calculations and some skill at carrying out analytical procedures.

This course will provide the student with experience in several of the key techniques that are used when working with DNA. The course will begin by introducing/reviewing some key lab issues and techniques, including measuring liquid in the uL range with accuracy and precision, and the solution preparation for DNA manipulation and analysis. An overview of basic molecular biology and an introduction to the key tools used in recombinant DNA will prepare the student for the project of obtaining a specified fragment of DNA from one plasmid and subcloning it into another.

INDENDED OUTCOME(S) FOR THE COURSE:

Students successfully completing this course will be able to:

- Plan and carry out the steps and procedures used to prepare and subclone recombinant constructs of DNA; understand the purpose of each step within the context of the construction.
- Interpret the results of analytical methods used to evaluate stages of DNA subcloning.
- Prepare solutions and reagents to support DNA techniques

OUTCOME ASSESSMENT STATEGIES:

At the beginning of the course, the instructor will describe the methods that will be used to evaluate student progress and the criteria for assigning a course grade. These may include examinations and/or quizzes, papers and/or oral presentations, demonstration of competency in specified techniques, and evaluation of the laboratory notebook.

- Carry out a recombinant DNA project according to an established protocols; be able to explain how each of the steps contributes to the project, and the degree to which the success of each can be evaluated.
- Maintain a complete, accurate and real-time record of procedures, results and interpretation in the laboratory notebook.
- Demonstrate working knowledge of key principles and terminology of recombinant DNA techniques and strategies.

COURSE CONTENT

Basic Techniques

Solution Preparation
Buffers, and their preparation
Use and care of pH Meters
Precision and Accuracy in measurement (esp micropipettors)

Recombinant DNA and Related Techniques

Basic DNA structure and function and chemistry
Recombinant DNA fundamentals and strategies
Restriction Enzyme digestion: principles and parameters for practical situations
Agarose Gel Electrophoresis: basic protocol, choosing appropriate variations
Purification of DNA from agarose
Preparation of plasmid vector for receiving DNA
Quantification of DNA (in agarose gels)
Ligation: principles, parameters and using manufacturers instructions
Transformation
Plasmid purification, small scale (mini-prep)
Diagnostic restriction digest Southern blot: Transfer, hybridization and detection of probe
Southern blot, and the use of probes for blot hybridization
Polymerase Chain Reaction

THEMES, ISSUES AND CONCEPTS

THEMES

- Care for Procedure
- Project planning
- Alternative strategies
- Documentation

ISSUES

- Maintaining laboratory notebook for continuity and detail
- Communication: with instructor/supervisor, lab partners and other lab personnel
- Dealing with unexpected results

CONCEPTS

- Purification of DNA
- Quantification of DNA
- Ligation
- Transformation
- Cloning
- Restriction analysis
- Interpretation and analysis of map and sequence information.
- Southern blot analysis
- PCR analysis

SKILLS

1. Measure microliter volumes of liquid with a level precision and accuracy that is reasonable for the instrument used (CoV and %E less than 2%); test assigned instruments for precision and accuracy.
2. Carry out the calculations necessary to prepare solutions needed for DNA work.
3. Prepare solutions for DNA work.
4. Determine the appropriate parameters (amounts of DNA, water, buffer (s) and enzyme, time and temperature of incubation) for digesting DNA given amount of plasmid; explain the rationale behind specific conditions chosen an enzyme digest.
5. Calculate the amount (ug) of any particular restriction fragment that would be generated from the digestion of a given plasmid on which the restriction sites are known by sequence or mapping.
6. Interpret the amount and size of DNA fragments in ethidium bromide-stained agarose gels by comparing the fragment with molecular weight markers
7. Describe and carry out methods for purifying fragments of DNA from common "contaminants" (other DNA fragments, proteins and enzymes, RNA, agarose and salts)
8. Describe several alternative strategies for subcloning when compatible ends are not conveniently located.
9. Explain the difference between and implications of directional vs. non-directional cloning, and identify the benefits and drawbacks of each
10. Explain the benefit of alkaline phosphatase in cloning, and the caveats that apply to its use.
11. Set up a ligation reaction, including appropriate controls. Explain the rationale for selecting particular parameters for the reaction (DNA concentration, vector to insert ratio, amount of enzyme, buffer components, time and temperature of the reaction, controls.)
12. Transform competent bacteria with ligated (and intact) plasmid, including appropriate controls.
13. Plate transformed bacteria. For bacteria transformed with intact plasmid, determine transformation efficiency.
14. Plan and carry out restriction digests that will allow analysis of transformation results (identify clones containing insert and determine the orientation of the insert with respect to the vector sequence).
15. Carry out capillary transfer of DNA to nitrocellulose or nylon membrane, and demonstrate understanding of principles and practices involved.
16. Describe at least two methods for labeling DNA, and describe how those labels are detected.
17. Carry out hybridization, wash and detection of DNA probe (Southern Blot)
18. Set up, carry out and interpret the results of a PCR reaction designed to evaluate the success of a plasmid construction.

Curriculum Course Request
New Course

Course number:	BIT 175
Course title:	Biotechniques: Proteins
Transcript title:	Biotechniques: Proteins
Lecture hours:	3 cr
Lab hours:	1 cr
Lec/lab hours:	
Load total:	.342
Weekly contact hours:	6
Total credits:	4

Reason for new course:

When the Biotechnology Laboratory Technician program was parked as a result of the budget cuts of 02-04, the administration determined that BIT courses might still be offered under Rock Creek s Biology department, assuming adequate enrollment. The established courses were not appropriate to run in this way, because they were big courses (many lab hours, hard to market to students), and they depended on a BIT prerequisite that could only be offered once a year. For this year, I developed three 199 courses that would cover the main focus areas of DNA, proteins, and cell culture/antibody techniques, and could be offered to students who have a bit of Biology and Chemistry, to give them some experience in authentic and valuable laboratory techniques. This particular course, focusing on Proteins, might complement Biochemistry, which is offered by the Chemistry department but without a lab component. Each of these has an introductory section that is tailored to the specific area covered, so that a student can start with any one of the three. These courses have had respectable enrollment, and the strategy of splitting the introductory material up in this fashion seems to work. We are working on a proposed revision of the program that might allow it to become unparked , and envision these courses as part of the new design. A note on the recommendations in place of prerequisites: For the 199s, the suggested recommended courses were put in as prerequisites, and I am nearly certain that our enrollment would have been even better if this had not been the case. Most of the students who took the class were taking their first PCC class and had prior course work that went substantially beyond the stated minima. However, I could not even unlock the prereqs until they had gotten into the PCC system, and I know that a few people I talked to just gave up. I also considered WR, RD and MTH prerequisites, but decided against them for similar reasons. Also, has been my experience that foreign students whose English skills are not strong often have compensatory skills

	and experience in science to do very well anyway. The math involved tends to not be very sophisticated (exponents and logs), just tricky to learn to apply, and that skill is noted in the CCOG and embedded in the outcomes.
Course description:	Covers theory and practice in the purification and analysis of proteins. Techniques commonly used in research labs and biotechnology settings will be covered, including protein assay, SDS-PAGE, enzyme assay, chromatography and protein purification principles and practices. Recommended: BI 101 or 211 and CH 100, 104 or 221 and MTH 95
Prerequisite(s):	None
Learning outcomes:	Students successfully completing this course will be able to: Plan, prepare and carry out standard analytical and preparative protein techniques, including, protein and enzyme assay, SDS-PAGE, and chromatography. Interpret data from quantitative protein and enzyme assays to assess purification procedures. Prepare solutions and reagents to support protein techniques
Course format:	On Campus
Are there similar courses existing:	YES
Description of existing courses:	Chemistry offers Biochemistry, and there is some overlap in theortical matieral, but the approach in this class is narrower and more focused on technques. It is also heavily lab-based whereas the Chem course does not have a lab component. The Chemistry SAC has been consulted.
Required or elective:	Elective
Is there impact on degrees or certificates:	NO
Description of impact on deg/cert:	Not at this time; see ablve
Is there an impact on another dept or campus?:	YES
Description of impact on dept/campus:	Possibly, if students chose to take this course instead of Biochemistry. This seems unlikely, because the Biochemistry course covers more theoretical ground, and is also more recognizable on a student's transcript (and is also more generally transferable) -- it seems more likely that this course would complement Biochem. Also, we have had two courses in

	Bioseparations that have been open to qualified students since the incpetion fo the Biotech program, covering much the same material. However, the Chem SAC has been consulted.
Have other sacs been contacted?:	YES
Description of contact:	See above
Is there an increase in costs for library or av dept?:	NO
Implementation term:	Fall
Implementation year:	2005
Contact name:	Kendra Cawley
Contact e-mail:	kcawley@pcc.edu

DATE: April 15, 2005

PREPARED BY: Kendra Cawley

COURSE NUMBER: BIT 175

COURSE TITLE: **Biotechniques: Proteins**

CREDIT HOURS: 4

LECTURE HOURS PER WEEK: 3

LAB HOURS PER WEEK: 3

NUMBER OF WEEKS: 10

SPECIAL FEE: $ 8 (laboratory fee)

COURSE DESCRIPTION FOR PUBLICATION: Covers theory and practice in the purification and analysis of proteins. Techniques commonly used in research labs and biotechnology settings will be covered, including protein assay, SDS-PAGE, enzyme assay, chromatography and protein purification principles and practices. Recommended: BI 101 or 211 and CH 100, 104 or 221 and MTH 95

PREREQUISITES: None

ADDENDUM TO DESCRIPTION:

This course will provide the student with experience in several of the key techniques that are used in protein biochemistry. The course will begin by introducing/reviewing the principles of solution preparation, with particular attention to pH and buffers (what they are and how they should be prepared). An introduction to protein chemistry will prepare the student to understand the basis of analytical and preparative techniques that will be used. These techniques may be coordinated into one a single multifaceted project or into several smaller projects, as the instructor determines is appropriate. However, at least on of the projects should involve principles and strategies of protein purification.

INDENDED OUTCOME(S) FOR THE COURSE:

Students successfully completing this course will be able to:

- Plan, prepare and carry out standard analytical and preparative protein techniques, including, protein and enzyme assay, SDS-PAGE, and chromatography.
- Interpret data from quantitative protein and enzyme assays to assess purification procedures.
- Prepare solutions and reagents to support protein techniques

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OUTCOME ASSESSMENT STATEGIES:
At the beginning of the course, the instructor will describe the methods that will be used to evaluate student progress and the criteria for assigning a course grade. These may include examinations and/or quizzes, papers and/or oral presentations, demonstration of competency in specified techniques, and evaluation of the laboratory notebook.

- Working with others in a team, carry out a purification project according to an established protocol
- Use analytical tools (protein assay, enzyme assay, SDS-PAGE) to evaluate samples
- Evaluate the results of each procedure as appropriate.
- Maintain a complete, accurate and real-time record of procedures, results and interpretation in the laboratory notebook.
- Prepare a report in which the procedures, results and interpretations are presented the form of a standard scientific paper.
- Demonstrate working knowledge of key concepts and terminology of separation techniques and principles

COURSE CONTENT, CONCEPTS and ISSUES

Basic Techniques
- Solution Preparation
- Buffers, and their preparation
- Use and care of pH Meters
- Precision and Accuracy in measurement (including micropipettors)
- Basic protein structure and chemistry

Analytical Techniques
- Spectrophotometry (direct quantification by A280, use of spectrophotometer in other assays)
- Protein Assay -- introduction of several methods; practice with one
- Enzyme Assay – principles, and practice with one.
- Electrophoresis: SDS-PAGE

Purification Concepts and Methods
- Overview of protein features useful in separation
- Bulk separation methods
- Chromatography: gel filtration, ion-exchange, hydrophobic interaction, affinity
- Centrifugation
- Dialysis and concentration of proteins

Critical issues in purification
- Assay and source
- Method development and modification
- Analysis and characterization of product

SKILLS
- Use of micropipettors with accuracy and precision
- Solution and buffer preparation
- Protein Assay
- Enzyme Assay
- SDS-PAGE
- Ammonium sulfate precipitation
- Centrifugation
- Dialysis
- Ion-exchange chromatography
- Evaluation of purification results
- Preparation of report in the format of a standard journal submission

Curriculum Course Request
New Course

Course number:	CIS 145
Course title:	Microcomputer Hardware and Troubleshooting
Transcript title:	Micro Computer Hardware
Lecture hours:	3
Lab hours:	3
Lec/lab hours:	
Load total:	
Weekly contact hours:	6
Total credits:	4
Reason for new course:	Knowledge of microcomputer hardware and troubleshooting is important for Information Technology personnel. Students in the Computer Information Systems, Computer Science, and Network Administration programs will benefit from this course.
Course description:	Students will learn to identify, remove, and install standard components of a PC style microcomputer, including motherboards, CPUs, RAM, hard drives, removable media drives, and power supplies. Additional topics include BIOS, CMOS, the boot process, video displays, printers, and home networking.
Prerequisite(s):	None
Prereq/concurrent:	None
Corequisite(s):	None
Learning outcomes:	Students will be able to remove and replace component parts of an x86 microcomputer, and to troubleshoot and repair common problems with these computers.
Course format:	On Campus
Are there similar courses existing:	YES
Description of existing courses:	A similar course, EET 178 PC Architecture for the technician is offered by the Engineering Department.
Required or elective:	Required
Is there impact on degrees or certificates:	YES

Description of impact on deg/cert:	This course is an elective for the Computer Information Systems Associate of Applied Science degree, but is a required course in the Network Administration CIS option which is pending state approval.
Is there an impact on another dept or campus?:	NO
Description of impact on dept/campus:	As mentioned above a similar course, EET 178 is offered by the Engineering Department. However, EET 178 will not be impacted because CIS 145 focuses on the needs of a desk top support person, network administrator, or programmer, while EET 178 focuses on the needs of an electronic technician.
Have other sacs been contacted?:	YES
Description of contact:	Skip Goldy consulted with Gary Hecht before we offered this course as CIS 199H. He had no objections.
Is there an increase in costs for library or av dept?:	NO
Implementation term:	Summer
Implementation year:	2005

Contact name:	Jim Straight
Contact e-mail:	jstraigh@pcc.edu

Course Content & Outcome Guide

DATE:	March 2005
PREPARED BY:	Skip Goldy
COURSE NUMBER:	CIS 145
COURSE TITLE:	Microcomputer Hardware and Troubleshooting
CREDIT HOURS:	4
LECTURE HOURS PER WEEK:	3
LECTURE/LAB HOURS PER WEEK:	0
LAB HOURS PER WEEK:	3
NUMBER OF WEEKS:	11/12
SPECIAL FEE:	Lab fee levied at the current rate published in the PCC schedule.

COURSE DESCRIPTION FOR PUBLICATION:
Students will learn to identify, remove, and install standard components of a PC style microcomputer, including motherboards, CPUs, RAM, hard drives, removable media drives, and power supplies. Additional topics include BIOS, CMOS, the boot process, video displays, printers, and home networking.

Prerequisites: A lively interest.

INTENDED OUTCOMES:
Students will be able to remove and replace component parts of an x86 microcomputer, and to troubleshoot and repair common problems with these computers.

ASSESSMENT:

- Identify the basic components of a microcomputer.
- Remove and replace the basic components of a microcomputer.
- Describe the function of the CPU, RAM, motherboard, power supply, chipset, BIOS, and CMOS.
- Describe how hard drives, floppy drives, and optical drives work.
- Describe prevailing technologies and specifications of monitors and printers.
- Troubleshoot and repair simple problem conditions effecting microcomputers.
- Describe how to install home networking using different methods for obtaining Internet service.

COURSE CONTENT:

Identify the basic components of a microcomputer

- CPU
- RAM
- Power supply and cables
- Hard drive
- Removable media drives
- Adapter cards
- Motherboard

Remove and replace the basic components of a microcomputer

- CPU
- RAM
- Power supply and cables
- Hard drive
- Removable media drives
- Adapter cards
- Motherboard

Describe the function of the CPU, RAM, motherboard, power supply, chipset, BIOS, and CMOS

- Program instruction storage
- CPU packages
- CPU manufacturers
- CPU speeds
- RAM physical forms
- RAM technologies
- Motherboard form factors
- Power supply plug types
- Northbridge and Southbridge
- Boot process

Describe how hard drives, floppy drives, and optical drives work

- Tracks and sectors
- CHS, LBA, and Large
- Formatting and partitioning
- DET, FAT, and MFT
- Pits and lands
- CD-ROM, CD-R, and CD-RW
- DVD-RAM; DVD-R,-RW; DVD+R,+RW

Describe prevailing technologies and specifications of monitors and printers

- CRT
- LCD
- OLED
- Plasma
- Display resolution
- Dot pitch
- Refresh rate
- Response time
- Dot matrix printers
- Ink jet printers
- Laser printers
- Thermal printers
- Photo printers

Troubleshoot and repair simple problem conditions effecting microcomputers

- Loose or improperly installed CPU
- Loose or improperly installed RAM
- Loose or improperly installed controller cables
- Loose power supply cables
- Master, Slave, and Cable Select settings on IDE devices
- Defragment the hard drive
- Check and repair hard drive integrity
- Adjust video display settings

Describe how to install home networking using different methods for obtaining Internet service

- Nodes
- Media
- Protocols
- NIC
- UTP
- TCP/IP
- 802.11b, g, & a
- Physical topologies
- Logical topologies
- Dial-up Internet service
- Cable Internet service
- DSL Internet service
- NAT routers

Curriculum Course Request
New Course

Course number:	Hst 284
Course title:	History of Africa
Transcript title:	History of Africa
Lecture hours:	4
Lab hours:	
Lec/lab hours:	
Load total:	2.72
Weekly contact hours:	4
Total credits:	4
Reason for new course:	To provide an option for history majors by cross listing the existing humanities course Hum 204- History of Africa.
Course description:	An introductory course designed to provide students with an understanding of major themes and issues in the culture and history of the African continent, the course will consider the rise of complex indigenous empires, smaller African societies, agricultural and technological achievements, African state systems, as well as the impact of international trade and Islam on Africa. It will examine colonialism, independence and social, political and cultural contributions of Africa s diverse people to the global enterprise. Recommended: completion of WR 115 with a C or better grade.
Prerequisite(s):	None
Learning outcomes:	Use critical thinking to analyze and evaluate aspects of African civilizations: peoples, societies and nations, in different geographic areas and time periods Understand and appreciate the diverse cultural attributes of individuals and groups from ancient times to the era of independence. Demonstrate college-level communication skills by speaking, listening and writing clearly about African peoples and their civilizations.
Gened list:	YES, Gen. Ed. Requested
Diversity list:	YES, Diversity Designation Requested
List a:	YES, Transfer List A requested
Course format:	On Campus
Other format:	Hybrid, online component

Are there similar courses existing:	YES
Description of existing courses:	Hum 204 is the exact same course.
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:	It would coordinate with the HUM 204 course in terms of enrollment.
Have other sacs been contacted?:	YES
Description of contact:	The history SAC approved the course and the Humanities SAC is compliant with that request.
Is there an increase in costs for library or av dept?:	NO
Implementation term:	Fall
Implementation year:	2005
Contact name:	James S. Harrison
Contact e-mail:	jharriso@pcc.edu

Portland Community College
Course Outcome Guide (COG)

Date: March 2005 Prepared by: J.S. Harrison
Course Number: HST 284
Course Title: History of Africa
Credit Hours: 4
Lecture Hours Per Week: 4
Number of Weeks: 10-11

COURSE DESCRIPTION:
An introductory course designed to provide students with an understanding of major themes and issues in the culture and history of the African continent, the course will consider the rise of complex indigenous empires, smaller African societies, agricultural and technological achievements, African state systems, as well as the impact of international trade and Islam on Africa. It will examine colonialism, independence and social, political and cultural contributions of Africa's diverse people to the global enterprise.

Recommended: completion of WR 115 with a C or better grade.

EXTENDED DESCRIPTION
This course explores the history of African civilizations in each of five geographic regions: Northern, Eastern, Western, Central and Southern. It will focus on topics and issues that were important to the various African civilizations and explore how they interacted with each other; it also encompasses information about the activities of famous as well as ordinary people as they lived their daily lives within the larger framework of cultural and historical realities.

INTENDED LEARNING OUTCOMES
After successful completion of HST 284 students will be able to:
- Use critical thinking to analyze and evaluate aspects of African civilizations: peoples, societies and nations, in different geographic areas and time periods
- Understand and appreciate the diverse cultural attributes of individuals and groups from ancient times to the era of independence.
- Demonstrate college-level communication skills by speaking, listening and writing clearly about African peoples and their civilizations.

OUTCOME ASSESSMENT STRATEGIES
The SAC expects that instructors will assess student learning throughout the term using a variety of methods. The SAC encourages instructors to consider the following in determining the achievement of course outcomes:
- Analyze primary and secondary sources of information
- Individual or team oral dialogues
- Investigative papers that analyze historical topics or issues
- Assess how civilizations have changed over time
- Participation in, and contribution to, all large and small group discussions and activities
- Quizzes, exams, response papers, and exercises
- Evaluate different interpretations of past events and develop their own
- Associate past events to contemporary times

COURSE CONTENT

Themes

- State formation: the rise and development of political entities
- The role of women
- Cultural continuity and change
- Acculturation
- Political and economic progress
- Developments in literature, art and music
- Conflict and cooperation
- Religions and philosophies
- Leadership

Concepts

- Revolution
- Religious pluralism (belief systems)
- Self-understanding (world views)
- The Diaspora
- Pan Africanism
- Leadership and statecraft
- Colonialism and imperialism
- Historical interpretation
- Resistance

Issues

- Domestic and commercial slavery
- Ethnicity, gender and socio-economic class
- Inter- and intra-ethnic cooperation and conflicts
- Impact of Christianity and Islam
- State-building and empire building
- Cultural evolution
- Colonialism and its impact
- *Negritude* and other aspects of cultural pride
- The symbiotic relationship between Europe and Africa

COMPETENCIES AND SKILLS

- Critical and creative thinking
- Evaluate interpretations of historical events
- Effective communication orally and in writing
- Analyze the causal relationship between two or more historical events
- Connect past and present events
- Problem posing
- Work collaboratively with others
- Clearly articulate thoughts in discussions and other activities
- Close reading of primary and secondary sources
- Select what is important from a large body of material

Curriculum Course Request
Gen/Ed Designation

Current course number:	HST 284
Current course title:	History of Africa
Category:	Course is in Arts and Humanities
Category:	Course is in Social Science
Explain how this course fits in the above category:	It is a social science because it applies the discipline of historical investigation to the interaction of individuals in societies. It is a humanities course because it studies the human condition by examining cultural factors such as religion, political structure, family, language and technology and it does that over a period of time.
How does course incorporate breadth and scope of gen/ed philosophy statement:	This course will include several aspects- how to relate to other cultures, understanding and appreciating the history of other cultures, gaining a new perspective on how societies interact over time.
Course is transferable to:	PSU and U of O
Is course available to all pcc students:	Course is available to all PCC Students
How does the course demonstrate rigor and require significant student preparation:	The course has required readings both in text form and from the Internet. Students are also required to complete out of class written assignments.
How does the course incorporate substantial student evaluation and demonstrate literacy:	Students will be quizzed on a regular basis and are required to participate in discussion groups orally in class and in written form as part of the online hybrid.
How does course include a wide spectrum of concepts and theoretical models:	The COG has a listing of the concepts and they include- The Diaspora Pan Africanism Leadership and statecraft Colonialism and imperialism Historical interpretation. Students will learn about different models of state building from ancient Egypt, through the savanna empires, the Zulu nation and modern nations such as Ghana and South Africa. They will also investigate various schools of historical interpretation.
How does course examine relation to other disciplines and reflect historical perspective:	The course is interdisciplinary in its makeup and will involve materials from history, archeaology, anthropology, sociology, political science, philososphy and religion all from a historical perspective.

How does course develop ability to examine, evaluate and make comparisons of relevant concepts:	Students will be given numerous opportunities to engage in critical thinking about events, will examine the historiography of this sub-discipline, for example the concept of Afrocentrism.

Contact name:	James S. Harrison
Contact email:	jharriso@pcc.edu

Curriculum Course Request
Gen/Ed Designation

Current course number:	Hst 284
Current course title:	History of Africa
Request for:	List A
Does the course rely on primary text or texts which address, analyze or comment upon the question of what it means to be human? Does it use secondary or summation materials and to what degree?:	Yes, it examines the complexity of human societies and civilizations of Africa over a period of time. The main text is a secondary source but students will also be directed to primary sources of evidence and field work with several indigenous cultures.
Does the course focus on questions of value, ethics, belief; and does the course attempt to place such questions in a historical context?:	Yes, it examines the values, ethics and beliefs of various cultures- for example: ancient Egypt, Islamic culture, several ethnic societies as well as modern values.
Does the course attempt an examination or analysis of the discipline to which it belongs; in other words, does the course provide students with a way of seeing the approach to the subject or subjects involved as one way among others of discussing text?:	The course examines both the disciplines of history and humanities (as an interdisciplinary field of study). Historiography is a regular and frequent part of this course of studies and several aspects of "humanities" are addressed- literature, politics, music and religion.
Does the course attend to the role that language plays in the discipline and in ways the subject is understood and has been understood?:	Yes. WE do look at the varieites of interpretations of historical events from different viewpoints and how these interpretations help us to better understand conflicting points of view.
Does the course provide students with access to the thinking and feelings of the disciplines respected and acknowledged contributors? :	Yes- we look at major historians and thinkers such as WEB DuBois and Basil Davidson.
Does the course provide students an opportunity to meaningfully interact with the texts of the discipline and with each other, through discussion and writing about the perspectives on the human condition that such texts provide?:	Yes, student attention to the text is tested by quizzes as well as longer written assignments and in small and large discussion groups. The writing calls for critical examination of events.
Does the course and the discipline to which it belongs value and seriously examine the subjective response to human experiences?:	yes, both history and the humanities by definition study the human condition.

Curriculum Course Request
Diversity Designation

Current course number:	HST 284
Current course title:	History of Africa
Explain how this course meets the diversity statement:	This course will examine the contributions and perspectives of a variety of peoples on the African continent including their social systems, politics, as well as the religion of Islam.
Contact name:	James S. Harrison
Contact email:	jharriso@pc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Does this correspond with a conversion request?:	YES (Recommended by subcommittee)
Current course number:	HST 104
Current course title:	History of Eastern Civilization: The Middle East
Current description:	Surveys the Middle East from ancient to modern times. Includes political, economic, social, religious and diplomatic events from pre-history to modern times.
Proposed description:	Surveys the Middle East from ancient to modern times. Includes political, economic, social, religious and cultural themes from pre-history to modern times. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	The new description more accurately characterizes the course, and makes the course recommendations consistent with other history classes.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Robert J. Flynn
Contact e-mail:	robert.flynn@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Does this correspond with a conversion request?:	YES (Recommended by subcommittee)
Current course number:	HST 105
Current course title:	History of Eastern Civilizations: India and Subcontinent
Current description:	Surveys India and Subcontinent, including Pakistan and Afghanistan. Includes political, economic, social, religious, and diplomatic events from pre-history to modern times. Recommended: Completion of WR 115 with a C or higher grade.
Proposed description:	Surveys India and Subcontinent, including Pakistan and Afghanistan. Includes political, economic, social, religious, and cultural themes from pre-history to modern times. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	more accurate description
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Sylvia Gray
Contact e-mail:	sgray@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Does this correspond with a conversion request?:	YES (Recommended by subcommittee)
Current course number:	HST 106
Current course title:	History of Eastern Civilizations: East Asia
Current description:	Surveys the eastern regions of Asia, specifically China and Japan. Includes political, social, religious and diplomatic events from pre-history to modern times. Recommended: Completion of WR 115 with a C or higher grade.
Proposed description:	Surveys the eastern regions of Asia, specifically China and Japan. Includes political, social, religious and cultural themes from pre-history to modern times. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	More accurate description
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Sylvia Gray
Contact e-mail:	sgray@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Current course number:	HST 285
Current course title:	The Holocaust
Current description:	The aftermath of World War I and the rise of the Nazis, the historical roots of anti-Semitism, the evolution of the Final Solution and its coordination in Nazi-occupied Europe, the victims of Nazi policies, the camps, the perpetrators, bystanders and resistance will be discussed. Videos, documents, and personal accounts will be used to explore interpretations of the Holocaust. Recommended: Completion of WR 115 with a C or higher grade.
Proposed description:	The aftermath of World War I and the rise of the Nazis, the historical roots of anti-Semitism, the evolution of the Final Solution and its coordination in Nazi-occupied Europe, the victims of Nazi policies, the camps, the perpetrators, bystanders, resistance, and the aftermath of the Holocaust will be discussed. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	The revised description reflects changes resulting from the four-credit conversion of this course.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Loretta Goldy
Contact e-mail:	lgoldy@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Title, Course Description
Current course number:	HST 101
Current course title:	Western Civilization: Ancient World to 1200
Proposed course title:	Western Civilization: Ancient World to Medieval
Proposed transcript title:	West Civ: Ancnt Wrld to Mediev
Reason for title change:	This is a more accurate title for the course.
Current description:	Studies the ancient civilizations of Egypt, Mesopotamia, Greece and Rome. Covers development of Judeo-Christian beliefs and early Medieval Europe. Recommended: Completion of WR 115 with a C or higher grade.
Proposed description:	Studies the ancient civilizations of Egypt, Mesopotamia, Persia, Greece and Rome. Covers development of Judeo-Christian beliefs, early Islamic civilization, the Byzantine Empire and the early Medieval period. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	This description incorporates the four-credit conversion changes.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Loretta Goldy
Contact e-mail:	lgoldy@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Current course number:	HST 102
Current course title:	Western Civilization: Medieval to Early Modern Europe
Current description:	Studies the High Middle Ages and early modern Europe, including the Renaissance, Reformation, Scientific Revolution and French Revolution. Recommended: Completion of WR 115 with a C or higher grade.
Proposed description:	Studies the High Middle Ages and early modern Europe, including the Renaissance, Reformation, Scientific Revolution, Enlightenment and French Revolution. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	This description more accurately describes the course content.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Loretta Goldy
Contact e-mail:	lgoldy@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Current course number:	HST 279
Current course title:	Russian History II
Current description:	The main aspects of Russian history will be reviewed from the reign of Catherine the Great to the present. Through historical analysis, a critical understanding will be gained of the cultural, social, political, and economic forces that shaped Russian history from the late eighteenth century to the present. Recommended: Completion of WR 115 with a C or higher grade.
Proposed description:	The main lines of Russian history will be reviewed from the late eighteenth century to the present. Through historical analysis, a critical understanding will be gained of the cultural, social, political, and economic forces that shaped Russian history from the late eighteenth century to the present. Recommended: Completion of WR 115 with a C or higher grade.
Reason for description change:	The revised description reflects changes resulting from the four-credit conversion of this course.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Loretta Goldy
Contact e-mail:	lgoldy@pcc.edu

Curriculum Request Form
Course Title, Number, Description, Prerequisite, Outcomes Change

Change:	Course Title, Description, Prerequisites, Outcomes
Current course number:	Hum 221
Current course title:	Leadership Through the Classics
Proposed course title:	Leadership Development
Proposed transcript title:	Leadership Development
Reason for title change:	To provide a more accurate description of the course and to align with other courses at the two-year level.
Current description:	The Phi Theta Kappa Leadership Through the Classics course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from the classics, experiential exercises, films, and contemporary readings on leadership. Prerequisites: Students must be at or beyond the WR 121 level to take this course. In addition, students should possess sufficient oral skills to fully participate in small group activities.
Proposed description:	The primary focus of the course is the development of leadership skills. It provides a basic understand of leadership principles and group dynamics and helps students develop a personal leadership philosophy and style. The course integrates readings from classic works of literature, contemporary multicultural readings, experiential exercises and films. Issues of diversity, personal growth and interpersonal relationships are explored within the context of leadership development.
Reason for description change:	To provide a better description of the course content, rather than the origin of the course.
Current learning outcomes:	NONE- the current CCOG is old form- 1997. A New COG has been written.

Proposed learning outcomes:	After successful completion of HUM 221 the student will be able to: Employ eleven critical leadership skills in solving problems. Clearly explain leadership concepts orally and in writing. Understand, employ and appreciate a variety of leadership styles. Demonstrate an understanding of leadership principles. Develop a personal leadership style.
Reason for learning outcomes change:	This is part of the cyclical update.
Current prerequisites:	Students must be at or beyond the WR 121 level to take this course. In addition, students should possess sufficient oral skills to fully participate in small group activities.
Proposed prerequisites:	college level reading and writing scores, or completion of WR 115 with a C or higher grade.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	James S. Harrison
Contact e-mail:	jharriso@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Current course number:	Mth 10B
Current course title:	Fundamental of Arithmetic I
Current description:	Use of whole numbers to write, manipulate, interpret and solve applications and formulas. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: Math placement test score above 22.
Proposed description:	Use whole numbers to write, manipulate, interpret and solve application and formula problems. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: Math placement test score above 22.
Reason for description change:	grammar changes
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Kathy Bernunzio
Contact e-mail:	kbernunz@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description,Learning Outcomes
Course number:	Mth 10C
Current course title:	Fundamental of Arithmetic I
Current description:	use of fractions and decimals to write, manipulate, interpret and solve applications and formulas. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: Math placement test score above 22 or successful completion of Mth 10B.
Proposed description:	Use whole numbers to write, manipulate, interpret and solve application and formula problems. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: Math placement test score above 22.
Reason for description change:	WRONG DESCRIPTION for Mth 10C. DE SACC had already approved Mth 10C - COG to be whole numbers in a lab setting. Mth 10B (whole # - lec/lab), Mth 10C (whole # - lab), Mth 11B (fractions/decimals - lec/lab), and Mth 11C (fractions/decimals - lab) were sent up the chain and approved years ago - date???? The original intent was to state - "grammar changes."
Current learning outcomes:	SKILLS: 1.0 BASIC ARITHMETIC FACTS 1.1 Master fraction and decimal vocabulary 1.2 Solve numerical and application problems with fractions and decimals 1.3 Round a given number to a specified place 1.4 Arrange numbers in numerical order 1.5 Perform order of operations accurately using fractions and decimals 1.6 Develop skills in estimation and number sense 2.0 WRITING 2.1 Write answers to application problems as complete sentences.
Proposed learning outcomes:	SKILLS: 1.0 BASIC ARITHMETIC FACTS 1.1 Solve numerical and application problems with whole numbers 1.2 Perform order of operations accurately using whole numbers 1.3 Develop skills in estimation and number sense 2.0 WRITING 2.1 Write answers to application problems as complete sentences.
Reason for learning outcomes change:	Originally it should be the same as Mth 10B (whole numbers), but this COG never got changed even though it was approved by the DE SACC years ago. (Really, I should have only needed to change the Course Description.)
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Kathy Bernunzio
Contact e-mail:	kbernunz@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Current course number:	Mth 11B
Current course title:	Fundamental of Arithmetic II
Current description:	Use of fractions and decimals to write, manipulate, interpret and solve applications and formulas. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: math placement test score above 22 or successful completion of MTH 10B.
Proposed description:	Use fractions and decimals to write, manipulate, interpret and solve application and formula problems. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: Math placement test score above 22 or successful completion of MTH 10B or MTH 10C.
Reason for description change:	grammar changes
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Kathy Bernunzio
Contact e-mail:	kbernunz@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description
Current course number:	Mth 11C
Current course title:	Fundamental of Arithmetic II
Current description:	Use of fractions and decimals to write, manipulate, interpret and solve applications and formulas. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites; Math placement test score above 22 or successful completion of MTH 10B or MTH 10C.
Proposed description:	Use fractions and decimals to write, manipulate, interpret and solve application and formula problems. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Prerequisites: Math placement test score above 22 or successful completion of MTH 10B or MTH 10C.
Reason for description change:	
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Kathy Bernunzio
Contact e-mail:	kbernunz@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description, Learning Outcomes
Current course number:	Mth 20
Current course title:	Basic Math
Current description:	Use of fractions, decimals, percents, integer arithmetic, measurements, and geometric properties to write, manipulate, interpret and solve applications and formulas. Introduce concepts of basic statistics, charts and graphs. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Scientific calculator with fraction capabilities required. Prerequisites: Math placement test score above 32 or successful completion of MTH 11B. Reading placement test score above 31 or successful completion of RD 80 or ENNL 250.
Proposed description:	Use fractions, decimals, percents, integer arithmetic, measurements, and geometric properties to write, manipulate, interpret and solve application and formula problems. Introduce concepts of basic statistics, charts and graphs. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Scientific calculator with fraction capabilities required. Prerequisites: Math placement test score above 32 or successful completion of MTH 10 or MTH 11. Reading placement test score above 31 or successful completion of RD 80 or ENNL 250.
Reason for description change:	grammar changes
Current learning outcomes:	1.7 Perform order of operations accurately using fractions, decimals, and percents * 1.10 Convert between standard and scientific notation * 2.3 Collect, interpret, organize data and draw graphs for a particular application * 3.3 Measure objects to a specified unit * 3.5 Convert Fahrenheit and Celsius temperatures accurately using formulas * 4.3 Determine the perimeter and area of polygons * 4.4 Determine the circumference and area of a circles * 4.5 Determine the volume of solids * 4.6 Determine side lengths using Pythagorean Theorem * 5.0 INTEGERS 5.1 Introduce operations with opposites and absolute values, and integer arithmetic * 6.1 Determine square roots to specified decimal place, exponents, fraction key, add, subtract, multiply, divide, order of operations, parentheses *
Proposed learning outcomes:	1.7 Perform operations accurately using fractions, decimals, percents, and integers * 1.8 Perform order of operations accurately with decimals, fractions, and integers * 4.2 Determine the perimeter, circumference, area, and volume of geometric figures * 4.3 Determine the hypotenuse by using the Pythagorean Theorem * 5.1 Use the scientific calculator * OPTIONAL: 1) Convert between standard and scientific notation * 2) Convert Fahrenheit and Celsius * 3) One-step algebraic equations *

Reason for learning outcomes change:	Old 1.7 to new 1.7 & 1.8 - Can't use order of operations with percents. * Old 1.10 to Optional #1 * Old 2.3 (took out - put in addendum - one of the choices for in-class activities) * Old 3.3 (took out - put in addendum - one of the choices for in-class activities) * Old 3.5 to Optional #2 * Old 4.3, 4.4, & 4.5 combined to new 4.2 * Old 4.6 to new 4.3 - changed from determining any side measurement to determining the hypotenuse only (not the legs) * Old 5.1 to new 1.7 & 1.8 - Integers are now integrated with the rest of the number system * Old 6.1 to new 5.1 - simplify the language concerning the use of a scientific calculator *
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	yes
How other depts/campuses will be impacted:	Probably for a program that requires Mth 20 for certificate. But, we didn't make any drastic changes.
Implementation term:	fall
Implementation year:	2005
Contact name:	Kathy Bernunzio

Curriculum Course Request
Course Revision

Change:	Course Description, Learning Outcomes
Current course number:	Mth 20B
Current course title:	Basic Math
Current description:	Use of fractions, decimals, percents, integer arithmetic, measurements, and geometric properties to write, manipulate, interpret and solve applications and formulas. Introduce concepts of basic statistics, charts and graphs. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Scientific calculator with fraction capabilities required. Prerequisites: Math placement test score above 32 or successful completion of MTH 10C. Reading placement test score above 31 or successful completion of RD 80 or ENNL 250.
Proposed description:	Use fractions, decimals, percents, integer arithmetic, measurements, and geometric properties to write, manipulate, interpret and solve application and formula problems. Introduce concepts of basic statistics, charts and graphs. Concepts will be introduced numerically, graphically, symbolically, and in oral and written form. Scientific calculator with fraction capabilities required. Prerequisites: Math placement test score above 32 or successful completion of MTH 10 or MTH 11. Reading placement test score above 31 or successful completion of RD 80 or ENNL 250.
Reason for description change:	grammar corrections
Current learning outcomes:	1.7 Perform order of operations accurately using fractions, decimals, and percents * 1.10 Convert between standard scientific notation * 2.3 Collect, interpret, organize data and draw graphs for a particular application * 3.3 Measure objects to a specified unit * 3.5 Convert Fahrenheit and Celsius temperatures accurately using formulas * 4.3 Determine the perimeter and area of polygons * 4.4 Determine the circumference and area of a circles * 4.5 Determine the volume of solids * 4.6 Determine side lengths * 5.0 INTEGERS 5.1 Introduce operations with opposites and absolute values, and integer arithmetic using Pythagorean Theorem * 6.1 Determine square roots to specified decimal place, exponents, fraction key, add, subtract, multiply, divide, order of operations, parentheses *

Proposed learning outcomes:	1.7 Perform operations accurately using fractions, decimals, percents, and integers * 1.8 Perform order of operations accurately with decimals, fractions, and integers * 4.3 Determine the hypotenuse by using the Pythagorean Theorem * 5.1 Use the scientific calculator * OPTIONAL: 1) Convert between standard and scientific notation * 2) Convert Fahrenheit and Celsius * 3) One-step algebraic equations *
Reason for learning outcomes change:	Old 1.7 - want to separate to new 1.7 & 1.8. Can't use order of operations with percents. * Old 1.10 - changed to Optional #1 * Old 2.3 - took out (it's in choices for in-class activities-addendum) * Old 3.3 - took out (it's in choices for in-class activities-addendum) * Old 3.5 - changed to Optional #2 * Old 4.3, 4.4, & 4.5 - combined them into new 4.2 * Old 4.6 to new 4.3 - changed from determining any side measurement (pythagorean theorem-determining the legs) to determining the hypotenuse * Old 5.1 - Integers now integrated with the rest of the number system - new 1.7 & 1.8 * Old 6.1 to new 5.1 - simplify the language concerning use of scientific calculator * Added Optional
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	yes
How other depts/campuses will be impacted:	Probably for a program that requires Mth 20 for certificate. But, we didn't make any drastic changes.
Implementation term:	fall
Implementation year:	2005
Contact name:	Kathy Bernunzio
Contact e-mail:	kbernunz@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number
Current course number:	MT110
Proposed Course Number:	MT 100
Current course title:	Introduction to Microelectronics
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	winter
Implementation year:	2006
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Title, Course Description
Course number:	MT222
Current course title:	Process Control in Semiconductor Manufacturing
Proposed course title:	Quality Control Methods in Manufacturing
Proposed transcript title:	Quality Control Methods in Mfr
Reason for title change:	Change working title for new course to match the content actually developed. This will make the course more appealing to more prospective students
Current description:	Covers contamination control and the use of statistical process control techniques to monitor semiconductor for manufacturing processes, e.g. use of control charts.
Proposed description:	Explores quality control methods used in semiconductor manufacturing, including statistical process control (SPC), control charts, performance representation and capability measurements. Emphasizes computer manipulation of actual data for analysis and design of quality.
Reason for description change:	Change working description for new course to match actual developed content
Current learning outcomes:	Understand the history and requirements for effective quality systems in modern manufacturing. Understand and utilize the tools of quality systems. Collect, analyze and plot variable and attribute data. Determine and use capability indices to describe a process. Create and react to control charts. Understand the sources of costs for implementing (or not implementing) quality systems. Describe various quality systems used in modern manufacturing.
Current prerequisites:	none
Proposed prerequisites:	MTH243, WR227
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Contact/Credit Hour Change

Current course number:	MT222	
Current course title:	Process Control in Semiconductor Manufacturing	
	Current	Proposed
Lecture hours:	2	3
Lab hours:	0	0
Lec/lab hours:	0	0
Load Total:	1.36	2.04
Contact Hours:	2	3
Credit Hours:	2	3
Reason for change:	After offering this course for two years in its current form, the MT SAC agrees that the content reflects 3 credit hours, and does not want to reduce the content.	
Are outcomes affected?:	NO	
Are degrees/certs affected?:	YES	
Impact on other departments campuses:	NO	
Is there potential conflict with another sac?:	NO	
Request Term:	Fall	
Request Year:	2005	
Contact name:	Eric Kirchner	
Contact email:	ekirchne@pcc.edu	

Course Content and Outcome Guide

DATE: May 2, 2005 PREPARED BY: Eric J. Kirchner
COURSE NUMBER: MT 222
COURSE TITLE: Quality Control Methods in Manufacturing
CREDIT HOURS: 3
LECTURE HOURS PER WEEK: 3
LECTURE/LAB HOURS PER WEEK: 0
LAB HOURS PER WEEK: 0
NUMBER OF WEEKS: 11
SPECIAL FEE: 0

COURSE DESCRIPTION:
Explores quality control methods used in semiconductor manufacturing, including statistical process control (SPC), control charts, performance representation and capability measurements. Emphasizes computer manipulation of actual data for analysis and design of quality.
Prerequisite: MTH243

ADDENDUM TO DESCRIPTION:
This course follows the process of collecting and analyzing data as it would be done in a semiconductor manufacturing line to characterize process performance. The data will be used to examine effects of sampling, utilize methods of representation, and options for process control as would be done using process control charts. Additional analysis will be done using capability indices and examining opportunities for improvement. Additionally students will study the history and philosophy of managing quality in manufacturing. Students should have access to a computer with data analysis software (spreadsheets). Software for SPC will also be examined with the opportunity to install and evaluate. Students must be able to manipulate data mathematically, and communicate meaning, both in oral and written form, using the English language.

INTENDED OUTCOME(S) FOR THE COURSE:
On completion of this course the student should be able to:

- Understand the history and requirements for effective quality systems in modern manufacturing
- Understand and utilize the tools of quality systems
- Collect, analyze and plot variable and attribute data
- Determine and use capability indices to describe a process
- Create and react to control charts
- Understand the sources of costs for implementing (or not implementing) quality systems
- Describe various quality systems used in modern manufacturing

OUTCOME ASSESSMENT STRATEGIES:
Assessment of student performance in this course will be based on students' ability to demonstrate knowledge and understanding of the required competencies, as determined through homework assignments and class participation. Assignments will include problem sets and projects involving analysis of data sets, statistics, case studies, and evaluation methods. Class work will involve group work and presentation, as well as written examinations.

REQUIRED STUDENT COMPETENCIES:

1.0 Understand contexts for defining quality

2.0 Define quality in terms of processes

2.1 Requirements
2.2 Improvement

3.0 Describe the evolution of quality systems in manufacturing

3.1 Artisan - Apprentice
3.2 Inspection
3.3 Quality Control
3.4 Statistical Quality Control
3.5 Statistical Process Control
3.6 Total Quality Management
3.7 Best Practices

4.0 Describe continuous improvement requirements in manufacturing

4.1 Commitment
4.2 Motivation
4.3 Change - in the corporate culture
4.4 Responsibility
4.5 Training
4.6 Communication

5.0 Setup and follow problem solving methodology using:

5.1 Cycle of steps (planning, acting, studying, doing)
5.2 Tools (charts, checksheets, diagrams, etc.)

6.0 Collect, analyze and chart variable data parameters:

6.1 Using charts for decision making and problem solving
6.2 Understanding and monitoring sources of variation (with piece, piece-to-piece, time-to-time)
6.3 Constructing control charts (center line, spec limits, control limits, sample size)
6.4 Recognizing patterns of variation
6.5 Revising charts

7.0 Measure and describe process capability

7.1 Control limits and spec limits
7.2 Six-sigma
7.3 Capability indices

8.0 Setup and use various chart types

8.1 Xbar-R
8.2 Xbar-S
8.3 Moving range
8.4 Moving average
8.5 All values

8.6 Run charts
8.7 Charts for short runs

9.0 Collect, analyze and chart attribute data parameters

9.1 Setup and use Conform/Non-conform charts
9.2 Setup and use Counts charts

10.0 Define and understand costs associated with quality

10.1 Prevention costs
10.2 Appraisal costs
10.3 Costs of failure

11.0 Understand and describe quality systems

11.1 ISO 9000
11.2 Supplier Certification
11.3 ISO 14000

Curriculum Course Request
Course Revision

Change:	Course Description, Requisites
Current course number:	MT223
Current course title:	Vacuum Technology
Current description:	Covers theory and practice of vacuum technology as used in semiconductor manufacturing. Includes vacuum principles, gas loads, pumping techniques, pressure measurement, RGAs, and leak defection. Prerequisites: MT 110, MT 111; CH 221.
Proposed description:	Covers theory and practice of vacuum technology as used in semiconductor manufacturing. Includes vacuum principles, gas loads, pumping techniques, pressure measurement, RGAs, and leak detection. Prerequisites: MT 110, MT 113, CH 222, WR227.
Reason for description change:	typo
Current prerequisites:	MT110, MT111, CH221
Proposed prerequisites:	MT110, MT113, CH222, WR227
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	fall
Implementation year:	2005
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Description, Requisites
Current course number:	MT200
Current course title:	Semiconductor Processing
Current description:	The first course in a two-course capstone sequence in semiconductor processing. Covers semiconductor device physics and the following manufacturing processes: oxidation, mask design, photolithography, and etch. Prerequisites: MT 223 and CH 222.
Proposed description:	This course explores aspects of semiconductor processing. Covers semiconductor device (CMOS) design and the following manufacturing processes: oxidation, photolithography, etch, doping, chemical vapor deposition, metallization and test/sort. Prerequisites: MT 223, MT 240, SP 130, and CH 222.
Reason for description change:	Old description matched course when it was part of a two course sequence. This was changed two years ago to a stand alone course.
Current prerequisites:	MT223, CH222
Proposed prerequisites:	MT223, MT240, CH222, SP130
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	spring
Implementation year:	2006
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number
Current course number:	MT100
Proposed Course Number:	MT 90
Current course title:	Basic Electronics
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	winter
Implementation year:	2006
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	MT240
Current course title:	RF Plasma Systems
Current prerequisites:	MT223, CH223
Proposed prerequisites:	MT223, MT224, CH222, WR227
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	winter
Implementation year:	2006
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Title
Current course number:	MT101
Proposed Course Number:	MT 80
Current course title:	Cleanroom Safety and Protocol
Proposed course title:	Safety and Cleanroom Protocol
Reason for title Change:	This was what the course was supposed to be called. Somewhere along the way the two words got interchanged.
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	winter
Implementation year:	2006
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	MT227
Current course title:	Process Equipment II
Current prerequisites:	MT224
Proposed prerequisites:	MT224, MT223
Will this impact other sacs?:	no
Will this impact other depts/campuses?:	no
Implementation term:	winter
Implementation year:	2006
Contact name:	Eric Kirchner
Contact e-mail:	ekirchne@pcc.edu

Curriculum Course Request
New Course

Course number:	CIS133G
Course title:	Introduction to Computer Games
Transcript title:	Introduction to Computer Games
Lecture hours:	3
Lab hours:	3
Lec/lab hours:	0
Load total:	3.42
Weekly contact hours:	6
Total credits:	4
Reason for new course:	There is a great deal of student interest in computer gaming. It is now offered as an academic discipline by several community colleges on the west coast, and PCC needs to develop an offering in this emerging field. There are excellent employment prospects for good students in this subject.
Course description:	Fundamentals of computer game development, including a survey of computer game categories and platforms, major game components, an overview of the game development process, and an introduction to game graphics. This course will design and develop some elementary two-dimensional computer games.
Prerequisite(s):	None
Learning outcomes:	Discuss the cultural background of video gaming: literature, film, television, theater, and interactive arts. Discuss the interplay of the various disciplines involved in a successful video game: Graphic arts and Multimedia, Business, Computer Science. Describe and utilize an effective methodology for game development and testing, emphasizing interdisciplinary teamwork throughout. Develop and storyboard a video game idea. Develop a rudimentary design document. Describe and implement the basic structure of a video game. Describe and implement a simple 2D graphics game environment. Discuss the general outline of 3D graphics game environments.
Course format:	On Campus
Course format:	Online
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
Description of contact:	I have discussed this class with Art Schneider (CAS) and Michael Cleghorn (Multimedia).
Is there an increase in costs for library or av dept?:	NO
Requested term:	Fall
Requested year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Course Content and Outcome Guide

Date: December 6th, 2004
Course Number: CIS 133G
Course Title: Introduction to Computer Games
Credit Hours: 4
Lecture Hours/Week: 3
Lecture/Lab Hours/Week: 0
Lab Hours/Week: 3
Number of Weeks: 11
Special Fee: none

PREPARED BY: Colin Goble

Course Description For Publication:
Fundamentals of computer game development, including a survey of computer game categories and platforms, major game components, an overview of the game development process, and an introduction to game graphics. This course will design and develop some elementary two-dimensional computer games.

Recommended Prerequisites: Computer Literacy, such as CIS 120 or CAS 133

Intended Outcomes for the Course:
On completion of this course students should be able to:

- Discuss the cultural background of video gaming: literature, film, television, theater, and interactive arts.
- Discuss the interplay of the various disciplines involved in a successful video game: Graphic arts and Multimedia, Business, Computer Science.
- Describe and utilize an effective methodology for game development and testing, emphasizing interdisciplinary teamwork throughout.
- Develop and storyboard a video game idea.
- Develop a rudimentary design document.
- Describe and implement the basic structure of a video game.
- Describe and implement a simple 2D graphics game environment.
- Discuss the general outline of 3D graphics game environments.

Course Content:
- History of game development and genres.
- Game design methodologies: proposal, storyboarding, design.
- Basics of gaming technologies: game engines, graphics, sound, and music.
- Development of some elementary 2D games
- Overview of 3D game development techniques

Curriculum Course Request
New Course

Course number:	CS233G
Course title:	Game Programming
Transcript title:	Game Programming
Lecture hours:	3
Lab hours:	3
Lec/lab hours:	0
Load total:	3.42
Weekly contact hours:	6
Total credits:	4
Reason for new course:	There is a great deal of student interest in computer gaming. It is now offered as an academic discipline by several community colleges on the west coast, and PCC needs to develop an offering in this emerging field. There are excellent employment prospects for good students in this subject.
Course description:	Object-oriented architectures and software design patterns used for game design. Students work with a game engine software framework to design and implement several kinds of games. Additional topics include animation techniques, physics simulation, user controls, graphical methods, and intelligent behaviors.
Prerequisite(s):	None
Learning outcomes:	Develop and Storyboard a video game idea. Develop a Design Document. Describe and implement the basic structure of a video game. Describe and implement both 2D and 3D graphics game environments. Describe and implement game audio. Describe and implement the necessary algorithms, data structures, and optimization for video game development. Describe and utilize an effective software engineering methodology for game development and testing.
Course format:	On Campus
Course format:	Online
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
Description of contact:	I have discussed this class with Art Schneider (CAS) and Michael Cleghorn (Multimedia).
Is there an increase in costs for library or av dept?:	NO
Implementation term:	Fall
Implementation year:	2005
Contact name:	Annie Groeninger
Contact e-mail:	agroenin@pcc.edu

Course Content and Outcome Guide

Date: December 6th, 2004
Course Number: CS 233G
Course Title: Game Programming
Credit Hours: 4
Lecture Hours/Week: 3
Lecture/Lab Hours/Week: 0
Lab Hours/Week: 3
Number of Weeks: 11
Special Fee: none

PREPARED BY: Colin Goble

Course Description for Publication:
Object-oriented architectures and software design patterns used for game design. Students work with a game engine software framework to design and implement several kinds of games. Additional topics include animation techniques, physics simulation, user controls, graphical methods, and intelligent behaviors

Recommended Prerequisites: Object–oriented programming in C++ and/or C#, such as CS 162, CST 211, or CIS 234N.

Addendum to Description:
Students will complete an implementation of several computer games and a team-oriented final project. This work will be conducted partly in the PCC labs and partly on the student's home PC.

Intended Outcomes for the Course:
On completion of this course students should be able to:

- Develop and Storyboard a video game idea.
- Develop a Design Document.
- Describe and implement the basic structure of a video game.
- Describe and implement both 2D and 3D graphics game environments.
- Describe and implement game audio.
- Describe and implement the necessary algorithms, data structures, and optimization for video game development.
- Describe and utilize an effective software engineering methodology for game development and testing.

Course Content:

- Overview of Computer Games
- Game Project Management
- Object-Oriented Methods for Games
- Software Design Patterns for Games
- Animation Techniques
- Simulating Physics
- Graphical Sprites
- Game Worlds
- Game Intelligence
- Analysis and presentations of Sample Games and Student Projects

Curriculum Course Request
Course Revision

Change:	Course Number
Current course number:	CST115
Proposed course number:	CIS115
Current course title:	Introduction to Object-Oriented Software Engineering
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST116
Proposed course number:	CIS116
Current course title:	Object-Oriented Software Development
Current prerequisites:	CST 115, MTH 95, and departmental permission
Proposed prerequisites:	CIS 115 and MTH 95
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST126
Proposed course number:	CIS126
Current course title:	Object-Oriented Software Methodology
Current prerequisites:	CST 211 and MTH 231
Proposed prerequisites:	CIS 211 and MTH 231
Current Prereq/Concurrent:	WR 227
Proposed Prereq/Concurrent:	WR 227
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number
Current course number:	CST140S
Proposed course number:	CIS140S
Current course title:	Perl Scripting (DL)
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST211
Proposed course number:	CIS211
Current course title:	Object-Oriented Data Abstraction
Current prerequisites:	CST 116, MTH 231, and WR 122 or WR 214
Proposed prerequisites:	CIS 116 and WR 121
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 250
Proposed course number:	CIS 250
Current course title:	Advanced Assembly Language Programming
Current prerequisites:	CST 116, EET 241, WR 227, or departmental permission
Proposed prerequisites:	EET 241 or departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 256
Proposed course number:	CIS 256
Current course title:	Introduction to Systems Software Development
Current prerequisites:	CST 126, CST 140, WR 227
Proposed prerequisites:	CIS 126 and CS 140U or departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 258
Proposed course number:	CIS 258
Current course title:	Object-Oriented GUI Software Development
Current prerequisites:	CST 126 and WR 227
Proposed prerequisites:	CIS 126 or departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 264
Proposed course number:	CIS 264
Current course title:	C# Multi-tier .NET Architecture Software Development
Current prerequisites:	CST 263 and WR 227
Proposed prerequisites:	CIS 258 or departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 266
Proposed course number:	CIS 266
Current course title:	Introduction to Embedded Software Development
Current prerequisites:	CST 250, CST 256
Proposed prerequisites:	CIS 250 and CIS 256 or departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 268
Proposed course number:	CIS 268
Current course title:	Object-Oriented Multithreaded Software Development
Current prerequisites:	CST 258 and WR 227
Proposed prerequisites:	CIS 258 or departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Curriculum Course Request
Course Revision

Change:	Course Number, Requisites
Current course number:	CST 272
Proposed course number:	CIS 272
Current course title:	Software Development Team Project: Deployment
Current prerequisites:	CST 270
Proposed prerequisites:	CIS 270 and departmental permission
Is there an impact on other SACs?	no
Is there an impact on other depts. or campuses?	no
Request Term:	summer
Request Year:	2005
Contact name:	Taylor Hanna
Contact e-mail:	thanna@pcc.edu

Course number:	PHL 211
Course title:	Existentialism
Transcript title:	Existentialism
Lecture hours:	4
Lab hours:	
Lec/lab hours:	
Load total:	2.72
Weekly contact hours:	4
Total credits:	4
Reason for new course:	Students have expressed interest in existential issues in other philosophy classes that are being taught at PCC. Additionally, this class will directly relate to the College Core Outcomes regarding self-reflection. This class adresses the fundamental questions concerning human meaning and individual value.
Course description:	This course will investigate existential philosophy from the 19th Century to the present. Students will become familiar with the different branches of existentialist thought and the influence existentialism had on philosophy, literature, and culture in the 19th and 20th Century. Philosophers that will be studied include, but are not limited to, some of the following: Kierkegaard, Nietzsche, Heidegger, Camus, and Sartre.
Prerequisite(s):	Placement into WR 121 and placement into RD 90.
Learning outcomes:	This course is organized so that students can encounter philosophers that have asked some of the most profound philosophical questions in contemporary intellectual history. The encounter with some of these ultimate questions will help students think critically about their own place in existence and society. This course will enable students to focus on abstract concepts in a dynamic and interactive manner. Students will develop skills in critical reading, critical thinking, and communication skills, as well as sharpening their philosophical perspectives on life.
Gened list:	YES, Gen. Ed. Requested
List a:	YES, Transfer List A requested
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:	Fall
Implementation year:	2005
Contact name:	John Farnum
Contact e-mail:	jfarnum@pcc.edu

COURSE CONTENT & OUTCOMES GUIDE

REQUIRED FORMAT

DATE: 4/20/05 PREPARED BY: John Farnum

COURSE NUMBER: PHL 211

COURSE TITLE: Existentialism

CREDIT HOURS: 4

LECTURE HOURS PER WEEK: 4

LECTURE/LAB HOURS PER WEEK:

LAB HOURS PER WEEK (INCLUDES CO-OP, PRACTICUM OR CLINICAL):

NUMBER OF WEEKS: 12

SPECIAL FEE:

COURSE DESCRIPTION FOR PUBLICATION: This course will investigate existential philosophy from the 19th Century to the present. Students will become familiar with the different branches of existentialist thought and the influence existentialism had on philosophy, literature, and culture in the 19th and 20th Century. Philosophers that will be studied include, but are not limited to, some of the following: Kierkegaard, Nietzsche, Heidegger, Camus, and Sartre.

(APPROXIMATELY THREE OR FOUR LINES, NOT MORE THAN 50 WORDS, INCLUDING
PRE-REQUISITES OR CO-REQUISITES, RECOMMENDATIONS AND/OR EXPLANATION OF
WHETHER OR NOT THE COURSE NEEDS TO BE TAKEN IN SEQUENCE.)

ADDENDUM TO DESCRIPTION: Prerequisites: Placement into WR 121 and placement into RD 90.

INTENDED OUTCOME(S) FOR THE COURSE:
This course is organized so that students can encounter philosophers that have asked some of the most profound philosophical questions in contemporary intellectual history. The encounter with some of these ultimate questions will help students think critically about their own place in existence and society. This course will enable students to focus on abstract concepts in a dynamic and interactive manner. Students will develop skills in critical reading, critical thinking, and communication skills, as well as sharpening

their philosophical perspectives on life.

COURSE ACTIVITIES & DESIGN: (OPTIONAL)

OUTCOME ASSESSMENT STRATEGIES: (CASE STUDIES, GROUP PROJECTS, INDIVIDUAL PROJECTS, QUIZZES, TEST)

Assessment strategies will include some of the following:

- Essays in the form of in-class exams, short papers, and term papers
- Short-answer exams
- Student presentations
- Class and small group discussions
- Reading Journals
- Participation

COURSE CONTENT: (THEMES, CONCEPTS, ISSUES, COMPETENCIES AND SKILLS)

The course content will include some of the following themes:

- Existential Anxiety
- Existential Faith
- Subjectivity
- Nihilism
- Existential Affirmation
- Being and Time
- Being and Nothingness
- Existential Freedom and Responsibility

Curriculum Course Request
General Education Designation

Current course number:	PHL 211
Current course title:	Existentialism
Category:	Course is in Arts and Humanities
Explain how this course fits in the above category:	This course is a philosophy course and these are usually designated as Arts and Humanities courses. The content squarely fits into that tradition, since its subject matter is the analysis of human existence and meaning.
How does course incorporate breadth and scope of gen/ed philosophy statement:	This course covers most, if not all, of the areas mentioned in the General Education Philosophy Statement. Existentialists have commented on most aspects of human existence including the following areas: 1) how we understand our existence through the lens of contemporary culture; 2)how our perspectives and personal views are influenced by historical value systems we are "thrown" into; 3)what it means to be human in the ever changing technological societies that we live in; 4)what is the best way to develop meaning through philosophical analysis; 5)how we can discuss the nature of aesthetic value and meaning in cultures that disregard its importance; 6)what does it mean to be a person who is connected to one's community in an "authentic" way. This brief description of areas that existentialists have traditionally covered dovetails nicely into the values mentioned in the General Education Philosophy Statement.
Course is transferable to:	University of Oregon and Oregon State University
Is course available to all pcc students:	Course is available to all PCC Students
How does the course demonstrate rigor and require significant student preparation:	Philosophical analysis is rigorous and requires ample student preparation outside of class. The students are responsible for reading a variety of texts by philosophers that relate to a philosophical understanding of existential meaning in the modern world. Reading difficult material engages the students in a reflective process that leads to an evaluation of their own perspective regarding the issues and philosophy of existentialism.
How does the course incorporate substantial student evaluation and demonstrate literacy:	The course will include assessment strategies in the form of in-class exams, short papers and term papers, as well as short answer exams, student presentations, class and small group discussion, and student participation. These assessment strategies will enable the instructor to fully evaluate whether or not students have grasped the essential aspects of the course.

How does course include a wide spectrum of concepts and theoretical models:	The philosophical understanding of existential topics is wide ranging and employs a variety of conceptual frameworks. These frameworks vary in their approach to theoretical understanding and include some of the following issues and concepts: existential anxiety, existential faith, subjectivity, nihilism, existential affirmation, Being and Time, Being and Nothingness, and existential freedom and responsibility. The issues and frameworks just mentioned are concerned with a variety of topics and constitute a wide spectrum of academic inquiry.
How does course examine relation to other disciplines and reflect historical perspective:	The subject matter of existentialism is interdisciplinary in that it takes a socio-historico-philosophic perspective to fully appreciate the multifaceted issues involved. Having said that, the approach to existentialism engages the students in an interdisciplinary manner without trying to answer all questions--especially when they relate to the psychological, historical, and social sciences. The investigation of existentialism frames the discussion and encourages students to recognize where futher research is needed to decide the variety of questions that the topic raises. For these reasons, the field of existentialism problematizes the relationship between philosophy and other disciplines in an engaging manner for students.
How does course develop ability to examine, evaluate and make comparisons of relevant concepts:	The topics mentioned above approach philosophical questions differently and in doing so reveals the multiplicity of perspectives involved in the field of study. Therefore it becomes imperative for students to not only be conversant in the different concepts but also make critical comparisons and evaluations between the different approaches. A philosophical study of existentialism encourages the development of the critical-analytic skills needed for making relevant distinctions and evaluative judgments.
Contact name:	John Farnum
Contact email:	jfarnum@pcc.edu

Curriculum Course Request
Gen/Ed List Designation

Current course number:	PHL 211
Current course title:	Existentialism
Request for:	List A
Does the course rely on primary text or texts which address, analyze or comment upon the question of what it means to be human? Does it use secondary or summation materials and to what degree?:	The course uses primary text articles to elicit reflection on philosophical themes regarding human beings place in existence and considers the question of individual meaning in human societies.
Does the course focus on questions of value, ethics, belief; and does the course attempt to place such questions in a historical context?:	This course directly focuses on value, ethics, and belief and provides a historical as well as a philosophical context to understand such concepts. These themes are dominant in existential philosophy and the perspectives that will be discussed provide an ample array of ideas to compare and consider.
Does the course attempt an examination or analysis of the discipline to which it belongs; in other words, does the course provide students with a way of seeing the approach to the subject or subjects involved as one way among others of discussing text?:	This course examines fundamental conceptual frameworks to understand existential philosophy. Each paradigm of existential philosophy questions the other paradigms claims to validity, value, and conception of reality.
Does the course attend to the role that language plays in the discipline and in ways the subject is understood and has been understood?:	This course examines the linguistic modes of understanding that have been presented in the field of existential philosophy. Each conceptual framework challenges the accepted mode of understanding by communicating unrealized definitions and perspectives that are then recommended for common adoption in the discipline.
Does the course provide students with access to the thinking and feelings of the disciplines respected and acknowledged contributors? :	This course provides students with an overview of the major figures and theories in existential philosophy including, but not limited to, Kierkegaard, Nietzsche, Heidegger, Sartre and Camus.

Does the course provide students an opportunity to meaningfully interact with the texts of the discipline and with each other, through discussion and writing about the perspectives on the human condition that such texts provide?:	This course provides opportunities for students to interact with each other through conversations about the text, concepts, and each others perspectives regarding existence and authentic expressions of individuality.
Does the course and the discipline to which it belongs value and seriously examine the subjective response to human experiences?:	This course and the discipline of philosophy are centered around the development of and individual s conscious awareness of the contexts that shape one s perspective of truth, reality, and ethical action.
Contact name:	John Farnum
Contact email:	jfarnum@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 225
Current course title:	A&P Practicum/Powerplant
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT109
Current course title:	Assembly & Rigging
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT115
Current course title:	Aircraft Structures & Inspections
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT117
Current course title:	Reciprocating Engine Theory & Maintenance
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 120
Current course title:	Propellers & Engine Installation
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 121
Current course title:	Turbine Engine Theory & Maintenance
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 123
Current course title:	Ignition Systems
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 124
Current course title:	Fuel Metering Systems
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT208
Current course title:	Aircraft Systems
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT211
Current course title:	Composite Structures
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT212
Current course title:	Sheet Metal
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT213
Current course title:	Hydraulics, Pneumatics, & Landing Gear
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT214
Current course title:	Instruments, Communication, & Navigation Systems
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 216
Current course title:	A&P Practicum/Airframe
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT218
Current course title:	Powerplant Inspection
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT219
Current course title:	Turbine Engine Overhaul
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu

Curriculum Course Request
Course Revision

Change:	Requisites
Current course number:	AMT 222
Current course title:	Reciprocating Engine Overhaul
Current prerequisites:	AMT101, and MTH60 with "C" or higher; Placement into; RD90 or higher & WR 90 or higher
Proposed prerequisites:	AMT203, AMT204, MTH 60 or AMT Department Math test with 70% or higher
Is there an impact on other sacs?:	no
Is there an impact on another dept or campus?:	no
Request term:	fall
Requested year:	2005
Contact name:	Steve Phillips
Contact e-mail:	shphilli@pcc.edu