CURRICULUM/GEN ED COMMITTEE
a standing committee of the Education Advisory Committee
Agenda
February 5, 2014
Downtown Center, Rose Room

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

Experimental Courses:
CAS 199F - Intro to Web Administration
CAS 199M - Intro to Apple Mac Computers

Course Inactivation:

AM 125, AM 137
AVS 241, 245
DA 140, 156, 160
DT 143, 206, 285

Available Grading Option:

NA

The following are submissions from *Oregon Coast Community College:

1. NCMA 101 – Body Structures and Function I
2. NCMA 102 – Clinical Procedures I
3. NCMA 103 – Office Skills for the Medical Assistant
4. NCMA 111 – Body Structure and Function II
5. NCMA 112– Clinical Procedures II
6. NCMA 113 – Clinical Practicum I
7. NCMA 123 – Clinical Practicum II
8. NCMA 125 – Pharmacology
9. NUR 101 – Nursing Assistant Level 1
10. NUR 102 – Nursing Assistant Level 2
11. NUR 141 – Fundamentals of Nursing
12. NUR 142 – Care of Acutely III Patients and Developing Families I
13. NUR 143 – Care of Acutely III Patients and Developing Families II
14. NUR 145- Introduction to Pharmacology & Pathophysiology
15. NUR 241 – Care of Patients with Complex Health Problems
16. NUR 242 – Care of Patients in Situations of Crisis and in Community-Based Settings
17. NUR 243 – Preparation for Entry into Practice
18. NUR 244 – Preparation for the NCLEX-RN Exam
19. AQS 100 – Introduction to Aquarium Science
20. AQS 110 – Aquarium Science Practicum 1
21. AQS 111 – Aquarium Science Practicum 2
23. AGS 165 – Current Issues in Aquarium Science

24. AQS 186 – Introduction to Scientific Diving
25. AQS 215 – Biology of Captive Fishes
26. AQS 216- Elasmobranch Husbandry
27. AQS 220 – Biology of Captive Invertebrates
28. AQS 226 – Biology of Diverse Captive Species
29. AQS 232 – Reproduction and Nutrition of Aquatic Animals
30. AQS 240 – Life Support System Design and Operation
31. AQS 245 – Animal Husbandry in a Research Capacity
32. AQS 252 – Exhibits and Interpretation
33. AQS 270 – Fish and Invertebrate Health Management
34. AQS 295 – Aquarium Science Internship
35. AQS 110 - Aquarium Science Practicum 1
Related Instruction
36. AQS 232 – Reproduction and Nutrition of Aquatic Animals
Related Instruction
37. AQS 240 – Life Support System Design and Operation
Related Instruction
38. AQS 252 – Exhibits and Interpretation
Related Instruction
39. AQS 270 – Fish and Invertebrate Health Management
Related Instruction

40. PHL 212 – Introduction to Philosophy of Mind
General Education

Remember: this agenda will need to be reviewed in Courseleaf:

Directions for accessing Courseleaf: Log into MyPCC, open the Course Management link
under "Tools" in the Faculty tab, and then click on this link to open the committee agenda
list. You can also copy and paste this link directly into the Course Management window.
https://catalog-next.pcc.edu/courseleaf/approve/?role=Curriculum_Committee_Chair

ABE 0791 Advanced Integrated Reading and Writing

AVS 137   Applied Aerodynamics

CG 111B   Study Skills for College Learning

CH 221   General Chemistry I

CH 221H   General Chemistry I: Honors

CH 222   General Chemistry II

CH 222H   General Chemistry II: Honors

CH 223   General Chemistry III

CH 223H   General Chemistry III: Honors

CH 298A   Chemistry Independent Study

GEO 210   The Natural Environment

GRN 273   Interior Plants

HOR 285   Permaculture Design

MCH 115   Geometric Dimensioning and Tolerancing

MM 220   Multimedia Design II

MM 231   Vector Graphics & Animation for the World Wide Web

MM 232   Multimedia 3D Modeling and Animation

MM 236   Video Compression and Streaming on the Internet

MM 245   Internet Delivery Methods

MT 227   Process Equipment II

RUS 260A Russian culture

*OCCC is currently in negotiations to become a contracting college under PCC

Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA101	Credits:	4
Course Title: (60 characters max)	Body Structure and Function I	Transcript Title (30 characters max)	Body Structure I
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 40 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Explores medical terminology in its proper context. Includes form and function of the human body in health and disease and basic word structure. Reviews select body system including: their components, basic structure and function to be able to apply these language skills in the clinical setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: NCMA 102	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number: NCMA 103	☐ Prerequisite	☐ Corequisite	☒ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Define basic combining word forms, suffixes, prefixes and demonstrate how to build medical words. 2. Define terms that apply to the structural organization of the human body. 3. Locate and identify terms that describe positions, directions and planes of the body. 4. Correctly describe locations, structure and functions of each organ of the following systems: integumentary, digestive, urinary, female reproductive and male reproductive.
Course activities and design: **(from CCOG)**	1. Lecture 2. Assignments 3. Small group activities 4. Research project
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class. 2. Identification of body systems using diagrams, models and student peers during class, homework and skills lab. 3. Written assignments designed to stimulate critical thinking related to the function and structure of the human body.

Course Content: Themes, Concepts, Issues and Skills: (**from CCOG)**	1. Basic Word Structure
	2. Suffixes
	3. Prefixes
	4. Terms Pertaining to the Body as a Whole
	5. Specific systems:
	    a. Skin
	    b. Digestive System
	    c. Urinary System
	    d. Female Reproductive System
	    e. Male Reproductive System

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit:45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	

If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino		
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins		
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.		

Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA102	Credits:	4
Course Title: (60 characters max)	Clinical Procedures I	Transcript Title (30 characters max)	Clinical Procedures I
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 20 Lec/lab: 60 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)
Develop communication and technical skills used in a medical office setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: NCMA 101	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number: NCMA 103	☐ Prerequisite	☐ Corequisite	☒ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Apply principles of aseptic technique and infection control. 2. Obtain and document a patient history and vital signs. 3. Prepare and maintain examination and treatment areas, and patients for examination, procedures and treatments. 4. Recognize and adhere to legal guidelines and ethical principles for medical assisting. 5. Recognize and respect cultural diversity by using effective and appropriate verbal and written communication. 6. Receive, organize, prioritize, and transmit information.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with patient scenarios 3. Small group activities 4. Assignments 5. Research project 6. Skills videos
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class. 2. Small group assignments designed to stimulate critical thinking and positive interactive communication with peers. 3. Written assignments designed to stimulate critical thinking related to level of current knowledge. 4. Skills practice lab with formative and summative performance evaluations.

Course Content: Themes, Concepts, Issues and Skills:
(from CCOG)
	1.Medical Assisting Law and Ethics
	  a. Monitoring federal and state regulations, changes, and updates
	  b.
	2. Communication Skills
	Patient Education
	  a. Document patient education
	  b. Develop and maintain a current list of community resources related to patients' healthcare needs
	  c.
	3. Health Information Management and Protection
	  a. Establishing, organizing, and maintaining a medical file
	  b. Filing medical records
	
	4. Medical History and Patient Assessment
	  a. Obtain and record a patient history

	b. Document a chief complaint and present illness

	5. Medical Asepsis and Infection
	   a. Perform medical aseptic hand washing
	   b. Remove contaminated gloves
	   c. Cleaning bio-hazardous spills
	
	 6. Anthropometric Measurements
	   a. Measure and record a patient's weight
	   b. Measure and record a patient's height
	   c. Measure and record a patient's oral temperature using a glass thermometer
	   d. Measure and record a rectal temperature
	   e. Measure and record an axillary temperature
	   f. Measure and record a patient's temperature using and electronic thermometer
	   g. Measure and record a patient's temperature using a tympanic thermometer
	   h. Measure and record a patient's temperature using a temporal artery thermometer
	   i. Measure and record a patient's radial pulse
	   j. Measure and record a patient's respirations
	   k. Measure and record a patient's blood pressure
	
	 7. Sterilization and Surgical Instruments
	   a. Sanitize equipment and instruments
	   b. Properly wrap instruments for autoclaving
	   c. Perform sterilization technique and operate an autoclave
	
	 8. Assisting with the Physical Examination
	 Assisting with the adult physical examination

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No

If **no** is selected continue to part three.
If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date

Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA103	Credits:	5
Course Title: (60 characters max)	Office Skills for the Medical Assistant	Transcript Title (30 characters max)	Medical Office Skills
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 50 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Introduces entry level office procedures. Includes telephone techniques, patient scheduling, office organization, office communication, the use of office machinery, while providing for patient privacy and confidentiality, computer systems, patient medical records, software and billing, coding and insurance procedures.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Apply and use proper telephone etiquette, including scheduling, patient triage, prior authorizations for insurance, and referrals. 2. Apply a basic understanding of office communication including verbal and written communication. 3. Correctly use office machinery including fax machines, copy machines, multi-line phone systems, computers, etc. while providing for patient privacy and confidentiality. 4. Display the ability to get along with co-workers, classmates and instructors and resolve conflicts in a positive, professional manner. 5. Show evidence of basic billing, coding and insurance procedures, the basic foundation of banking and financial records and processes, and the ability to assemble and file in both paper and electronic patient medical records.
Course activities and design: **(from CCOG)**	1. Lecture 2. Patient scenario simulation modules 3. Assignments 4. Small group activities
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class. 2. Small group assignments designed to stimulate critical thinking and positive interactive communication with peers. 3. Written assignments designed to stimulate critical thinking related to potential clinical experiences.

Course Content: Themes, Concepts, Issues and Skills:
(from CCOG)
	1. The First Contact: Telephone and Reception
	    a. Handling incoming calls
	    b. Calling emergency medical services
	    c. Explain general office policies
	
	2. Managing Appointments
	    a. Scheduling an appointment for a new patient
	    b. Scheduling an appointment for an established patient
	    c. Scheduling an appointment for a referral to an outpatient facility
	    d. Arranging for admission to an inpatient facility

3. Written Communications
    a. Composing a business letter
    b. Opening and sorting incoming mail

4. Electronic Applications in the Medical Office
    a. Care for and maintain computer hardware
    b. Searching on the internet

5. Health Insurance and Reimbursement
    a. Completing a CMS-1500 claim form

6. Credit and Collections
    a. Evaluate and manage a patient's account
    b. Composing a collection letter

7. Accounting Responsibilities
    a. Post charges on a day sheet
    b. Post payments on a day sheet
    c. Process a credit balance
    d. Process refunds
    e. Post adjustments to a day sheet
    f. Post collection agency payments
    g. Process NSF checks
    h. Balance a day sheet
    i. Complete a bank deposit slip and make a deposit
    j. Reconcile a bank statement
    k. Maintain a petty cash account
    l. Order supplies
    m. Write a check

8. Diagnostic Coding
    a. Locating a diagnostic code

9. Outpatient Procedural Coding
    a. Locating a CPT code

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the <u>Related Instruction in CTE Courses</u> form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
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SAC Chair (type name)	Email	Date

Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA 111	Credits:	4
Course Title: (60 characters max)	Body Structure and Function II	Transcript Title (30 characters max)	Body Structure II
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 40 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

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	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Explores medical terminology in its proper context. Includes form and function of the human body in health and disease and basic word structure. Reviews select body system including: their components, basic structure and function to be able to apply these language skills in the clinical setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)

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

☐ Placement into:	☐ Placement into:		
course prefix & number: MTH 63 or 65 or higher	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number: 101	☒ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Define basic combining word forms, suffixes, prefixes and demonstrate how to build medical words. 2. Define terms that apply to the structural organization of the human body. 3. Locate and identify terms that describe positions, directions and planes of the body. 4. Correctly describe locations, structure and functions of each organ of the following systems: nervous, cardiovascular, respiratory, blood, lymphatic and immune, musculoskeletal, sensory, and endocrine and the area of psychiatry.
Course activities and design: **(from CCOG)**	1. Lecture 2. Assignments 3. Small group activities 4. Research project
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class. 2. Identification of body systems using diagrams, models and student peers during class, homework and skills lab. 3. Written assignments designed to stimulate critical thinking related to the function and structure of the human body.

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Specific Systems:**
	    a. Nervous System
	    b. Cardiovascular System
	    c. Respiratory System
	    d. Blood System
	    e. Lymphatic and Immune System
	    f. Musculoskeletal System
	    g. Sense Organs: The Eye and the Ear
	    h. Endocrine System
	    i. Psychiatry

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate		☐ Yes

and/or degree?		☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or	No

describe the nature of acknowledgments and/or agreements that have been reached	
Implementation term:	☐ Next available term after approval
	☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA112	Credits:	4
Course Title: (60 characters max)	Clinical Procedures II	Transcript Title (30 characters max)	Clinical Procedures II
Can this course be repeated? **PCC default is 0 repeats**	⊠ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 20 Lec/lab: 60 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ⊠ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	⊠	⊠
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Continues to develop communication and technical skills used in a medical office and clinic setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: MTH 63, 65 or Highter	☐ Prerequisite	☐ Corequisite		☒ pre/co
course prefix & number: NCMA 102 and NCMA 111	☐ Prerequisite	☐ Corequisite		☒ pre/co
course prefix & number: NCMA 111	☐ Prerequisite	☐ Corequisite		☒ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Comply with quality assurance practices for medical offices. 2. Perform selected diagnostic tests; screen and report test results. 3. Correctly assist with examinations, procedures, and treatments. 4. Recognize and respond appropriately to emergencies. 5. Prioritize and perform multiple tasks, managing time effectively. 6. Use effective verbal and written communication, adapting communication to individual's ability to understand and modify teaching methods to client needs. 7. Receive, organize, prioritize, and transmit medical information adhering to legal and ethical principles.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with patient scenarios 3. Small group activities 4. Assignments 5. Research project 6. Skills videos
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class. 2. Small group assignments designed to stimulate critical thinking and positive interactive communication with peers. 3. Written assignments designed to stimulate critical thinking related to level of current knowledge. 4. Skills practice lab with formative and summative procedural evaluations.

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Pharmacology**
	
	 2. Preparing and Administering Medications
	    a. Administer oral medications
	    b. Prepare injections
	    c. Administer an intradermal injection
	    d. Administer a subcutaneous injection
	    e. Administer an intramuscular injection
	    f. Administer an intramuscular injection using the Z-track method
	    g. Apply transdermal medications
	    h. Obtain and prepare an intravenous site
	
	 3. Neurology

a. Assist with lumbar puncture

4. Urology
   a. Perform a female urinary catheterization
   b. Perform a male urinary catheterization
   c. Instruct a male patient on the self-testicular examination

5. Urinalysis
   a. Obtaining a clean-catch midstream urine specimen
   b. Obtaining a 24-hour urine specimen
   c. Determining color and clarity of urine
   d. Chemical reagent strip analysis
   e. Preparing urine sediment

6. Orthopedics
   a. Apply an arm sling
   b. Apply cold packs
   c. Use a hot water bottle or commercial hot pack
   d. Measure a patient for axillary crutches
   e. Instruct a patient in various crutch gaits

7. Assisting with Minor Office Surgery
   a. Opening sterile surgical packs
   b. Using sterile transfer forceps
   c. Adding sterile solution to a sterile field
   d. Performing skin preparation and hair removal
   e. Applying sterile gloves
   f. Applying a sterile dressing
   g. Changing an existing sterile dressing
   h. Assisting with excisional surgery
   i. Assisting with incision and drainage
   j. Removing sutures
   k. Removing staples

8. Phlebotomy
   a. Obtaining a blood specimen by evacuated tube or winged infusion set
   b. Obtaining a blood specimen by capillary puncture

9. Hematology
   a. Making a peripheral blood smear
   b. Staining a peripheral blood smear
   c. Performing a hemoglobin determination
   d. Performing a microhematocrit determination
   e. Performing a Westergren erythrocyte sedimentation rate

10. Obstetrics and Gynecology
   a. Instruct the patient on the breast self-examination
   b. Assist with the pelvic examination and pap smear
   c. Assist with colposcopy and cervical biopsy

11. Pediatrics
   a. Obtain an infant's length and weight
   b. Obtain the head and chest circumference
   c. Apply a urinary collection device

	12. Introduction to CLIA Laboratory
	    a. Care for the microscope
	
	CLIA Compliance and Laboratory
	    a. Screen and follow up test results and document laboratory results appropriately
	    b. Quality control monitoring using a QC chart
	    c. Perform routine maintenance of clinical equipment
	
	13. Geriatrics
	
	14. Nutrition Wellness
	    a. Teach a patient how to read food labels

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the [Related Instruction in CTE Courses](#) form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are	No

affected by the instruction of this course? If so, provide details.	
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No

Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A

Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course **Career Technical Education (CTE)**	

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA113	Credits:	4
Course Title: (60 characters max)	Clinical Practicum I	Transcript Title (30 characters max)	Clinical Practicum I
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: Lec/lab: 60 Lab: 80
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Provides opportunities to practice direct care to patients and support office functions in a medical setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: NCMA 111, 112	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number: NCMA 102	☒ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Complete administrative tasks including scheduling and monitoring office or clinic appointments. 2. Prepare and assist with selected examinations, procedures and treatments. 3. Provide care that encompasses compassion, empathy, and respect of cultural diversity. 4. Utilize therapeutic and professional communication techniques in the clinical setting with patients, peers, and health care team members. 5. Utilize basic patient teaching techniques when communicating with clients. 6. Present self in both appearance and behavior appropriate for a professional medical assistant in compliance with OCCC and facility policies. 7. Adhere to ethical and legal principles guiding practice as a medical assistant.
Course activities and design: (from CCOG)	1. Skills practice lab with patient scenarios 2. Clinical practicum 3. Clinical evaluations 4. Reflective journaling 5. Written assignments
Outcomes assessment strategies: **(from CCOG)**	1. Seminar discussion. 2. Reading assignments examining clinical practicum. 3. Small group discussions designed to stimulate critical thinking and positive interactive communication with peers. 4. Clinical practicum. 5. Clinical evaluations. 6. Journaling designed to accurately reflect on clinical experience. 7. Completion of daily logs detailing clinical experience. 8. Skills practice lab with formative and summative procedural evaluations.

Course Content: Themes, Concepts, Issues and Skills:
(from CCOG)
	1.Orientation to clinical practice
	
	2.Orientation to the practice setting
	
	3.Front-office skills
	     a. Using appropriate telephone techniques
	     b. Scheduling and monitoring appointments
	     c. Filing and records management
	
	4.Back-office skills
	     a. Using aseptic technique and appropriate infection control measures
	     b. Obtaining patient histories and vital signs

	c. Documenting appropriately d. Preparing patients for examinations and procedures E. Operating selected instruments and equipment F. Collecting and processing selected specimens G. Providing patient teaching

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or	No

describe the nature of acknowledgments and/or agreements that have been reached.	
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA123	Credits:	5
Course Title: (60 characters max)	Clinical Practicum II	Transcript Title (30 characters max)	Clinical Practicum II
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: Lec/lab: 36 Lab: 112
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like		
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.		
	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Provides opportunities to practice direct care to patients and support office functions in a medical setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)

☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: PSY 101	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number: NCMA 113	☒ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Complete administrative tasks such as scheduling and monitoring office or clinic appointments. 2. Prepare and maintain examination and treatment area and assist with selected examinations, procedures and treatments. 3. Make decisions regarding patient care based on professional values and complying with legal/ethical standards. 4. Use therapeutic and professional communication techniques in the clinical setting with patients, peers, and coworkers. 5. Implement patient education plans incorporating culture, learning needs and ability to learn. 6. Adhere to ethical and legal principles guiding practice as a medical assistant. 7. Collaborate with members of the health care team for assigned patients.
Course activities and design: (from CCOG)	1. Discussion seminar 2. Skills practice lab with patient scenarios 3. Clinical practicum 4. Clinical evaluations (mid-term and final)
Outcomes assessment strategies: **(from CCOG)**	1. Clinical evaluations (mid-term and final) 2. Journaling designed to accurately reflect on clinical experience 3. Completion of daily logs detailing clinical experience 4. Completion of HESI Exam (comprehensive student assessment exam)

Course Content: Themes, Concepts, Issues and Skills:
(from CCOG)
	I. Orientation to the practice
	2. Front-office skills
	    a. Scheduling patient admissions and procedures
	    b. Applying third-party reimbursement guidelines
	    c. Monitoring third-party reimbursement
	    d. Applying basic bookkeeping skills
	3. Back-office skills
	    a. Using and complying with quality assurance practices
	    b. Collecting and processing specimens
	    c. Assisting with examinations, procedures, and treatments
	    d. Preparing and administering medications and immunizations
	    e. Recognizing and responding to emergencies
	    f. Coordinating patient care information with other health care providers
	    g. Prioritizing tasks and managing time effectively
	    h. Teaching health promotion and disease prevention strategies
	    i. Identifying community resources
	    j. Maintaining supplies inventory

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	

If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

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<tr><td colspan="2">New Course
Career Technical Education (CTE)</td></tr>
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Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nationally Certified Medical Assistant	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NCMA125	Credits:	3
Course Title: (60 characters max)	Pharmacology	Transcript Title (30 characters max)	Pharmacology
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Includes basic principles and practice of pharmacology and administering drugs, identify roles and responsibilities of the medical assistant in safely administering selected medications by various routes. Covers medications related to each of the following classifications: vitamins, minerals and herbs, skin, nervous system, urinary system, gastrointestinal system, anti-infective analgesics, sedatives and hypnotics, psychotropic meds, musculoskeletal, anticonvulsants, reproductive system, cardiovascular, and respiratory.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: PSY 101	☐ Prerequisite	☐ Corequisite	☒ pre/co	
course prefix & number: NCMA 112	☒ Prerequisite	☐ Corequisite	☐ pre/co	

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Understanding basic principles of pharmacology, uses, side effects, contraindications, and patient education pieces for each of the classifications of medications to include: vitamins, minerals and herbs, skin, nervous system, urinary system, gastrointestinal system, anti-infective, analgesics, sedatives and hypnotics, psychotropic meds, musculoskeletal, anticonvulsants, reproductive system, cardiovascular, and respiratory. 2. Evaluate and review the legal aspects of administering medications, and the roles and responsibilities. of the medical assistant. 3. Differentiate between chemical, generic, and trade names of drugs. 4. Locate and use various resources to obtain information regarding medication administration. 5. Accurately calculate drug dosages; accurately and safely administer medications by oral, parenteral, topical, and rectal routes to clients of all ages. 6. Accurately maintain medication and immunization records.
Course activities and design: (from CCOG)	1. Lecture 2. Skills practice lab with patient scenarios 3. Small group activities 4. Assignments 5. Research project
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class. 2. Small group assignments designed to stimulate critical thinking and positive interactive communication with peers. 3. Written assignments designed to stimulate critical thinking related to level of current knowledge.

Course Content: Themes, Concepts, Issues and Skills:
(from CCOG)
	1. Mathematics and Dosage Calculations
	    a. Numerals and Fractions
	    b. Decimal Fractions
	    c. Ratio and Proportion
	    d. The Metric System
	    e. Calculating Adult Dosages: Oral and Parenteral Forms
	    f. Calculating Children's Dosages

	2. Introduction to Pharmacology
	    a. Drug Sources, Schedules, and Dosages
	    b. Forms of Drugs and How They Act
	    c. The Medication Order
	    d. Medication Administration Essentials
	    e. Administration of Nonparenteral Medications
	    f. Parenteral Equipment and Supplies
	    g. Administration of Parenteral Medications
	    h. Allergy: An Overview
	3. Medications, Supplements, and Drug Abuse
	    a. Antibiotic Agents
	    b. Antifungal, Antiviral, and Immunizing Agents
	    c. Antineoplastic Agents
	    d. Vitamins, Minerals and Herbals
	    e. Psychotropic Agents
	    f. Substance Abuse
	4. Effects of Medications on Body Systems
	    a. Medications Used for Musculoskeletal System Disorders
	    b. Medications Used for Gastrointestinal System Disorders
	    c. Medications Used for Cardiovascular System Disorders
	    d. Medications That Affect the Respiratory System
	    e. Diuretics and Medications Used for Urinary System Disorders
	    f. Medications Used in Treatment of Endocrine Disorders
	    g. Medications That Affect the Nervous System
	    h. Medications That Affect the Reproductive System

Section #2 Function of the new course within an existing and/or new program(s)

New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.

Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Nationally Certified Medical Assistant Certificate	# credit: 45
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the [Related Instruction in CTE Courses](#) form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

<table>
<tr><td colspan="2" align="center">New Course
Career Technical Education (CTE)</td></tr>
</table>

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR101	Credits:	8
Course Title: (60 characters max)	Nursing Assistant Level 1	Transcript Title (30 characters max)	Nursing Assistant Level 1

Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 40 Lab: 90

If the course is repeatable then provide a compelling argument.	

Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Introduces foundational knowledge and skills necessary to deliver routine patient care to residents of long term care and other care facilities. Covers personal care nursing skills, restorative services, mental health services, social needs and patient rights. Includes an introduction to anatomy and physiology. This course meets the Oregon State Board of Nursing requirements for eligiblity to apply for Nursing Assistant 1 certification.

Addendum to course description:

<table>
<tr><td colspan="5">Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)</td></tr>
<tr><td colspan="5">☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores</td></tr>
<tr><td colspan="2">☐ Placement into:</td><td colspan="3">☐ Placement into:</td></tr>
<tr><td colspan="2">course prefix & number:</td><td>☐ Prerequisite</td><td>☐ Corequisite</td><td>☐ pre/co</td></tr>
<tr><td colspan="2">course prefix & number:</td><td>☐ Prerequisite</td><td>☐ Corequisite</td><td>☐ pre/co</td></tr>
</table>

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

Outcomes: **(Use observable and measurable verbs)**	1. Utilize appropriate infection control measures while providing patient care, including hand hygiene, disposal of contaminated articles, and hazardous wastes. 2. Utilize proper body mechanics and safey transfer to prevent injury to self and client. 3. Implement basic principles of personal care, including bathing, hair care, dressing/undressing, oral care, shaving and nail care. 4. Utilize basic communication and interpersonal skills with patients as well as staff members, family members, and other health care team members. 5. Provide safe and effective patient care to include meeting basic needs, personal care, restorative services, mental health services, social needs and patient rights. 6. Distinguish between personal and professional values and legal/ethical responsibilities in practice.
Course activities and design: **(from CCOG)**	1. Lecture: online skills modules 2. Skills practice lab with patient scenario simulation 3. Clinical practice 4. Clinical post-conference
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice exams that require integration and application of material covered in online modules and in skills and clinical components of course 2. Satisfactory completion of all quizzes with an 85% or higher 3. Formative and summative skills lab performance evaluation 4. Formative and final clinical performance evaluation
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	1. Role of CNA and other health care team members 2. Legal and ethical aspects of working as a CNA 3. Patient's rights 4. Communication with clients, families, and members of the health

care team

5. Human needs, including safety, religious, psychosocial, physical
6. Developmental stages throughout the lifespan
7. Infection control and prevention of transmission of disease
8. Transferring clients, and proper body mechanics
    a. Safe patient handling and body mechanics
    b. Use of no-lift equipment
    c. Moving, positioning and transferring patients
    d. Ambulation with and without assistive devices
    e. Range of motion exercise
9. Avoiding and managing hazards as a CNA, including prevention of fallsHand hygiene
10. Vital signs
11. Common illnesses
12. Care of patient with common illnesses
13. Therapeutic diets
    a. Preventing dehydration
    b. Feeding techniques
    c. Recording intake and output
14. Personal Care of Client
    a. Bathing
    b. Toileting – bladder and bowel, perineal care
    c. Dressing/undressing
    d. Application and care of dentures, eyeglasses, and hearing aids
    e. Oral hygiene
    f. Shaving and Nail care
15. Skin Integrity
    a. Maintainence of skin integrity
    b. Prevention of skin ulcers.
16. Care of cognitively impaired client
17. Documentation of Client Care
    a. Appropriate documentation of care
    b. Documentation of pertinent observations
    c. Deviations that must be reported immediately to others of health care team
18. Caring for the Dying Client and Family
19. Clinical Competencies as outlined by the Oregon State Board of Nursing for the Nursing Assistant
20. Professional conduct in the clinical setting
21. Transition from student nurse assistant to nursing assistant role

Section #2 Function of the new course within an existing and/or new program(s)

New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Acute Care Nursing Assistant Certificate	# credit:13
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or	N/A

agreements that have been reached	
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR102	Credits:	5
Course Title: (60 characters max)	Certified Nursing Assistant Level 2: Acute Care	Transcript Title (30 characters max)	Nursing Assistant Level 2
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 48 Lec/lab: Lab: 24
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813.   For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)
Covers knowledge and skills necessary for a Certified Nursing Assistant 2 to work in an acute-care facility. This course meets the Oregon State Board of Nursing (OSBN) requirements for the Certified Nursing Assistant 2 registry.
Addendum to course description:

<table>
<tr><td colspan="5">Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)</td></tr>
<tr><td colspan="5">☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores</td></tr>
<tr><td colspan="2">☐ Placement into:</td><td colspan="3">☐ Placement into:</td></tr>
<tr><td colspan="2">course prefix & number: NUR 101 or CNA1 license</td><td>☒ Prerequisite</td><td>☐ Corequisite</td><td>☐ pre/co</td></tr>
<tr><td colspan="2">course prefix & number:</td><td>☐ Prerequisite</td><td>☐ Corequisite</td><td>☐ pre/co</td></tr>
</table>

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Communicate effectively with patients and the health care team using therapeutic and professional communication techniques in the clinical setting. 2. Recognize and report normal and abnormal patterns in clinical findings and behaviors of clients to members of the health care team. 3. Provide care through adherence to clients' plan of care through taking action within designated responsibilities and as directed by the Registered Nurse. 4. Show evidence of emerging understanding of anatomy and physiology of body systems, treatments, symptoms including pain and their mutual relationships. 5. Apply proper use of diagnostic, safety, and therapeutic devices within the Nursing Assistant's scope of care. 6. Distinguish between personal and professional values and legal/ethical responsibilities in practice.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with patient scenario simulation 3. Clinical practice 4. Clinical post-conference
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice exams that require integration, application, and critical examination of material covered in the course 2. Satisfactory completion of all quizzes with an 85% or higher 3. Formative and summative skills lab performance evaluation 4. Formative and summative clinical performance evaluation
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	1. Observation, reporting and documentation of patients' clinical status 2. Effective communication skills with patients and other health care team members

	3. Anatomy and Physiology and treatment of disease processes including: cardiovascular, digestive, endocrine, immune, integumentary, mental health, musculoskeletal, nervous, reproductive, respiratory and urinary systems. 4. Care of the surgical patient: normal healing process, signs and symptoms to monitor for and preventing complications 5. Clinical Competencies as outlined by the Oregon State Board of Nursing for the CNA 2 in acute care. 6. Professional conduct in the clinical setting

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Acute Care Nursing Assistant Certificate	# credit:13
Name of new degree(s):		# credit:
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?		☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.		

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are	No

affected by the instruction of this course? If so, provide details.	
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No

Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A

Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR141	Credits:	12
Course Title: (60 characters max)	Fundamentals of Nursing	Transcript Title (30 characters max)	Fundamentals of Nursing
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 66 Lec/lab: 187 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Presents concepts and skills that lay a foundation for entry into the nursing profession. Provides opportunities to attain the knowledge and skills that are necessary to promote health, prevent disease, and deliver basic nursing care to individual patients across the lifespan. The skills laboratory section is the first of five in the Nursing sequence.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: BI233	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Utilize an understanding of conceptual foundations of nursing; nursing process, critical thinking and holistic care, as they apply to the nursing role in care of patients with common health disturbances. 2. Recognize how facts and principles from physical, biological, social, and behavioral sciences are applied to planning care for individuals across the life span. 3. Apply selected health promotion concepts in care of patients from diverse backgrounds in various health care settings 4. Use therapeutic and professional communication techniques in the clinical setting. 5. Provide basic nursing care for patients using facts and principles from physical, biological, social, and behavioral sciences. 6. Distinguish between personal and professional values, and legal/ethical responsibilities in practice 7. Follow standard safety and infection control measures to perform nursing skills correctly in the skills practice laboratory.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with patient scenario simulation 3. Clinical 4. Reflective journaling 5. Assignments **6. Community Based Project**
Outcomes assessment strategies: **(from CCOG)**	1. Satisfactory completion of electronic patient care planning tool (75% or above complete in all categories) 2. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class 3. Weekly and final clinical performance evaluation 4. Written assignments designed to stimulate critical thinking related to clinical experiences. 5. Written assignments designed to stimulate critical thinking related to theory content

	6. Written journals designed to promote integration of clinical outcomes *with* personal reflection and clinical experience.
	7. Skills practice lab formative and summative performance evaluation
	8. Completion of drug dose math exam at 90% or above.
	9. Completion of ATI comprehensive student assessment program (Skill modules: practice and proctored exams).
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Conceptual Foundations of Nursing:** a. Historical evolution of professional nursing, socialization to professional nursing, issues and trends in current nursing, program philosophy and conceptual framework b. Professional nursing practice, expanded nursing roles, nursing competencies and scope of practice (Intro Division 45 OSBN) c. Values, ethics and legal issues d. Caring for the older adult e. Health care in the community and home f. Communication in the nurse-patient relationship g. Culture & diversity h Health, wellness and complementary medicine **2. Clinical Nursing Care:** a. Safety b. Infection prevention and management c. Mobility d. Sleep and rest e. Pain management f. Nutrition g. Cardiac and respiratory Function h. Urinary and Bowel Elimination i. Life span development j. Cognitive processes k. Families and their relationships l. Loss and grieving m. Spiritual health n. Stress, coping and adaptation; o. Human sexuality **3. Clinical Nursing Therapies** a. Health assessment **4. Nursing Process:**

	a. Understanding the application of nursing process in developing individualized plans for patient care.
	b. Foundation for practice; documentation and communication in the health care team: patient medical record
	5. Introduction to Pharmacology and drug dose calculations.
	Skills
	1. Hygiene skills 2. Transmission based and standard precautions 3. Safe patient handling and body mechanics 4. Moving, positioning, and transferring patients 5. Conduct and document adult health assessment with vital signs 6. Oxygen therapy 7. Medication administration and drug dose calculation. Parenteral (IM, Sub-Q, ID) and non-parenteral 8. Specimen collection: urine, stool, sputum and finger stick blood glucose Electronic Health Record documentation

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Practical Nursing Certificate	# credit: 50
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)

Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR142	Credits:	12
Course Title: (60 characters max)	Care of Acutely Ill Patients and Developing Families I	Transcript Title (30 characters max)	Care of Patients and Families I
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 66 Lec/lab: 187 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)
Focuses on the care of individual patients with health problems related to the respiratory, cardiovascular, fluid & electrolytes, endocrine, musculoskeletal, and neurological systems. Incorporates the nursing role in providing care to patients across the lifespan. Includes the second skills laboratory section in the Nursing sequence.
Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: BI 234	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number: NUR 141	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number: FN 255	☒ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Utilize critical thinking skills and understanding of nursing process to develop holistic, individualized plans of care for patients with pain, endocrine, respiratory, cardiovascular, musculoskeletal, integumentary disorders, and women's health needs across the life span.
	2. Identify health-related community-based resources supporting individuals across the lifespan.
	3 Utilize therapeutic communication skills with individual patients and families, while providing health education and health promotion.
	4. Collaborate with members of the health care team during planning, implementation and evaluation of the plan of care for assigned patients.
	5. Distinguish personal ethics that might conflict with professional ethics as delineated by the American Nurses Association in the Code of Ethics for Nurses
	6. Evaluate and apply strategies and communication techniques that promote effective delegation.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with patient scenario simulation 3. Clinical 4. Reflective journaling 5. Assignments 6. Community Based Project
Outcomes assessment strategies: **(from CCOG)**	1. Satisfactory completion of electronic patient care planning tool (75% or above complete in all categories)
	2. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class
	3. Weekly and final clinical performance evaluation
	4. Written assignments designed to stimulate critical thinking related to clinical experiences.
	5. Oral presentation resulting from group research, analysis, and critical

evaluation.

6. Written journals designed to promote integration of clinical outcomes *with* personal reflection and clinical experience.

7. Skills practice lab formative and summative performance evaluation

8. Completion of drug dose math exam at 90% or above.

9. Completion of ATI comprehensive student assessment program (Skill modules; practice and proctored exams).

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Alterations in Patterns of Health: Nursing care of patients having surgery.** **2. Pathophysiology and Patterns of Health:** a**.** Nursing care of patients in pain b. Nursing: care of patients with altered fluid, electrolyte and acid-base balance **3**. **Conceptual Foundations of Nursing**: a. Nursing research and evidenced- based care b. Patient education and health promotion **4. Psychosocial Nursing Tools: Communication and the clinical interview** **5. Foundations of Practice—Legal and ethical guidelines for safe practice** **6**. **Response to Altered Endocrine Function:** a. Nursing care of patients with Diabetes Mellitus-Part I b. Nursing care of patients with Endocrine disorders: Thyroid and parathyroid disorders **7. Response to Altered Respiratory Function:** a. Nursing care of patients with gas exchange disorders- Part I: The patient with chronic obstructive disease. **8. Pulmonary Diseases** a. Nursing care of patients with ventilation disorders-Part I: Infectious pulmonary disease; Tuberculosis **9. Response to Altered Cardiovascular Function**: a. Nursing care of patients with coronary disease b. Nursing care of patients with vascular and lymphatic disorders: hypertension and peripheral vascular disease **10. Response to Altered Musculoskeletal Function:** a. Nursing care of patients with musculoskeletal trauma: Fractures and surgical stabilization; b. Nursing care of patients with musculoskeletal disorders: Arthritis & joint replacement **11. Response to Altered Integumentary Structure and Function**: a. Nursing care of patients with integumentary disorders **12**. **Pregnancy:**

	a. Fetal development and genetics
	b. Maternal adaptation and nursing management during pregnancy
	13. Childbearing at Risk:
	a. Nursing management of pregnancy at risk; pregnancy related complications
	a. Understanding the application of nursing process in developing individualized plans for patient care.
	b. Foundation for practice; documentation and communication in the health care team: patient medical record
	5. Introduction to Pharmacology and drug dose calculations.
	Skills
	1. Enteral feedings via nasogastric, gastrostomy, and nasoduodenal tubes
	2. Sterile gowning, gloving and field preparation. 3. Assessment of acute and chronic wounds and pressure ulcers 4. Clean and sterile dressing changes 5. Preparation and changing of intravenous bags and tubing 6. Administration of primary and secondary intravenous infusions 7. Conversion of peripheral intravenous infusions to intermittent device 8. Saline flush via a peripheral intermittent venous access devices 9. Urinary catheterization Electronic Health Record documentation

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):	Practical Nursing Certificate	# credit: 50
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the [Related Instruction in CTE Courses](#) form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR143	Credits:	12
Course Title: (60 characters max)	Care of Acutely Ill Patients and Developing Families II	Transcript Title (30 characters max)	Care of Patients and Families II
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 66 Lec/lab: 187 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Focuses on the care of patients with health problems related to neurological, hematological, gastrointestinal, and genitourinary systems, as well as conditions related to cancer, mental health, infectious diseases, and complications of obstetrics. Incorporates the role of the nurse in providing care to patients across the lifespan who are acutely ill. Includes the third skills laboratory section in the Nursing sequence.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:		☐ Placement into:	
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number: NUR 142	☒ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Develop holistic individualized plans of care for patients with altered immunity, hematological/oncologic, urinary, neurological/cognitive, gastrointestinal, and reproductive, disorders.
	2. Show evidence of an emerging understanding of psychobiological disorders, psychosocial trauma, and the obstetrical experience including antepartum, postpartum, and newborn adaptation.
	3. Implement individual and group, evidenced-based health education plans incorporating culture, learning needs/readiness, and ability to learn.
	4. Communicate effectively with patients and healthcare team members with emerging leadership and management skills.
	5. Recognize situations requiring revision to the plan of care for assigned patients; report and initiate plan of care changes
	6. Make decisions regarding patient care based on professional values and complying with legal/ethical standards.
	7. Utilize assessment skills and communication techniques that promote effective and appropriate delegation.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with patient scenario simulation 3. Clinical 4. Reflective journaling 5. Assignments 6. Community Based Project
Outcomes assessment strategies: **(from CCOG)**	1. Satisfactory completion of electronic patient care planning tool (75% or above complete in all categories)
	2. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class
	3. Weekly and final clinical performance evaluation

	4. Written assignments designed to stimulate critical thinking related to clinical experiences. 5. Oral presentation resulting from group research, analysis, and critical evaluation. 6. Written journals designed to promote integration of clinical outcomes *with* personal reflection and clinical experience. 7. Skills practice lab formative and summative performance evaluation 8. Completion of drug dose math exam at 90% or above. 9. Completion ATI comprehensive student assessment program (Skill modules; practice and proctored exams).
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1.Labor and Birth:** Labor and birth process; Nursing management during labor and birth; Nursing management of labor and birth at risk **2. Postpartum**: Post-partum adaptation; Nursing management during the postpartum period **3. The Newborn:** Newborn adaptation and nursing management of the newborn **4. The Newborn at Risk:** Nursing care of the newborn with special needs; Nursing management of the newborn at risk; Acquired and congenital newborn conditions **5. Pathophysiology and Patterns of Health:** a. Nursing care of patients with altered immunity-Part I b. Nursing care of patients with cancer **6. Response to Altered Cardiovascular Function:** Nursing care of patients with hematological disorders **7. Responses to Altered Integumentary Structure and Function:** Nursing care of patients with integumentary disorders: Skin cancer **8. Responses to Altered Reproductive Function:** a. Nursing care of women with reproductive system and breast disorders: cervical, endometrial, ovarian, and breast cancer **b.** Nursing care of men with reproductive system and breast disorders: Prostate and Testicular Cancer **c.** Nursing care of patients with sexually transmitted infection **9. Psychosocial Nursing Tools:** Understanding responses to stress-coping with acute and chronic illness **10. Responses to Altered Gastrointestinal Function:** a. Nursing care of patients with gastrointestinal and bowel disorders: Part I b**.** Nursing care of patients with gastrointestinal and bowel disorders: Part 2 **11. Responses to Altered Urinary Elimination:** Nursing care of patients with urinary tract disorders **12. Responses to Altered Neurological Function:** a. Nursing care of patients with intracranial disorders: Stoke and seizures b. Nursing care of patients with neurological disorders: Part 1

	c. Nursing care of patients with neurological disorders: Dementia & Alzheimer's: Part 2
	13. Cognitive Disorders: Delirium
	14. Foundations in Theory: Mental health and mental illness; Relevant theories and therapies for nursing practice
	15. Psychobiological Disorders: Eating disorders
	16. Trauma Interventions: Child, older adult and intimate partner abuse
	17. Psychobiological Disorders: Addictive Disorders
	18. Practice of Nursing: Scope of practice/entrance into practice; Member of the health care team; Delegation
	Skills 1. Basic obstetrical and neonatal assessment 2. Nasogastric tube insertion and removal 3. Nasopharyngeal, oropharyngeal, and nasotracheal suctioning 4. Tracheostomy care 5. Organization and prioritization of multiple skills when providing care in a simulated clinical experience Electronic Health Record documentation

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Practical Nursing Certificate	# credit: 50
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Molino		
SAC Administrative Liaison (type name)	Email	Date
Jane Hopkins		
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Portland Community College

<table>
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Career Technical Education (CTE)</td></tr>
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<table>
<tr><td align="center">Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu</td></tr>
</table>

Section #1 General Information

Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR145	Credits:	1
Course Title: (60 characters max)	Introduction to Pharmacology & Pathophysiology	Transcript Title (30 characters max)	Pharmacology & Pathophysiology

Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 33 Lec/lab: Lab:

If the course is repeatable then provide a compelling argument.	

Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Introduces connections between pathophysiology of selected disease processes, associated pharmacological treatments and nursing responsibilities.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:		☐ Placement into:	
course prefix & number: NUR 143	☐ Prerequisite	☒ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Use knowledge of pharmacodynamics and pathophysiology to identify nursing implications associated with administration of medications from select drug classifications.
	2. Relate the pathophysiology of select disorders to the actions and nursing implications associated with caring for patients receiving medications for those disorders.
	3. Monitor and evaluate the effectiveness of drug therapy, focusing on interpretation of nursing assessments to detect therapeutic effects, side effects and adverse reactions, and drug-drug, drug-food, and drug-natural product interactions for specific classes of drugs.
	4. Use knowledge of select drug classifications, uses, general drug actions, adverse reactions, contraindications, precautions and interactions to outline a patient plan of care.
	5. Teach patients and family members regarding safe and effective use of drugs.
Course activities and design: **(from CCOG)**	1. Lecture 2. Class discussions 3. Assignments
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class
	2. Written assignments designed to stimulate critical thinking related to clinical decision-making and pharmacology.
Course Content: Themes, Concepts, Issues and Skills: (**from CCOG**)	**1**. **Pharmacology Principles and Safe Administration of Medications** **2. Medications Affecting the Endocrine System** a. Pathophysiology of diabetes b. Anti-diabetic medications c. Pathophysiology of thyroid disease d. Anti-thyroid medications & thyroid preparations **3. Medications Affecting the Respiratory System** a. Bronchodilators b. Mucolytics & antitussives

	c. Antihistamines & decongestants
	4. Medications Affecting the Cardiovascular System
	a. Anti-hyperlipidemics
	b. Cardiac glycosides
	c. Anti-hypertensives
	5. Medications affecting the gastrointestinal system

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):	Practical Nursing Certificate	# credit: 50
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No

Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

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Career Technical Education (CTE)</td></tr>
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Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR 241	Credits:	12
Course Title: (60 characters max)	Care of Patients with Complex Health Problems	Transcript Title (30 characters max)	Care of Patients
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 66 Lec/lab: 187 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Covers clinical decision-making when providing care to patients with complex physical and mental health problems. Emphasizes increased independence, judgment and critical thinking in the nursing role. Includes the fourth skills laboratory section in the Nursing sequence.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: NUR 143	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: (Use observable and measurable verbs)	1. Develop comprehensive, holistic, individualized plans of care for patients with acute and chronic psychiatric disorders, infectious disease, gastrointestinal problems, acute and chronic pain, endocrine problems and fluid/ electrolyte/acid-base problems. 2. Function with increased independence in clinical decision-making and the application of nursing process to patients with complex physical and/or mental health problems. 3. Evaluate the effectiveness of health teaching plans that are culturally sensitive and revise plans appropriately. 4. Communicate therapeutically with patients experiencing difficulty in individual coping across the mental health continuum. 5. Organize and prioritize components of care requiring complex assessments and interventions for assigned patients; consistently reports pertinent information to the health care team. 6. Differentiate the scope of practice and legal responsibilities of the registered nurse and licensed practical nurse in Oregon.
Course activities and design: (from CCOG)	1. Lecture 2. Skills practice lab with simulation 3. Clinical practice 4. Clinical post-conference 5. Reflective journaling 6. Written Assignments 7. Community Based Project
Outcomes assessment strategies: (from CCOG)	1. Satisfactory completion of three electronic patient care planning tools (75% or above complete in all categories) 2. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class 3. Weekly and final clinical performance evaluation 4. Written assignments designed to stimulate critical thinking related to clinical experiences.

	5. Oral presentation resulting from group research, analysis, and critical evaluation.
	6. Written journals designed to promote integration of clinical outcomes *with* personal reflection on clinical experience.
	7. Skill practice laboratory formative and summative performance evaluation
	8. Completion of drug dose math exam at 90% or above.
	9. ATI comprehensive student assessment program (Skill modules: practice and proctored exams).
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Nursing Care of Clients with Psychiatric Problems** a. Overview of mental health & illness b. Therapeutic use of self c. Schizophrenic disorders d. Bipolar disorders e. Affective disorders and suicide f. Personality disorders g. Anxiety disorders h. Infant, child & adolescent disorders i. Therapeutic modalities: psychotherapy, family, group, milieu, ECT; geriatric mental health **2. Psychopharmacology** **3. Foundations of Nursing Practice for the Registered Nurse** a. Delegation, education and the nursing process **4. Nursing Care of Patients with Gastrointestinal Problems** a. Nursing care of patients with gallbladder, liver, and pancreatic disorders Part **5. Nursing Care of patients with Pain** a. Acute & chronic pain **6. Nursing Care of Clients with Infectious Disease** a. HIV & AIDs **7. Nursing Care of Patients with Gastrointestinal Problems~** a. Nursing care of patients with gallbladder, liver, and pancreatic Disorders Part 2. **8. Nursing Care of Clients with Infectious Disease** a. Altered immune response b. Current trends in infectious diseases **9. Physiologic Concepts for the Registered Nurse** **10. Nursing Care of Patients with Altered Fluid, Electrolyte, and Acid-Base Balance Part 2** **11. Foundations of Nursing Practice for the Registered Nurse** **a.** Ethical & legal Dilemmas **12. Nursing Care of the Patient with Endocrine Problems**

	a. Pituitary & adrenal emergencies b. Acute complications of diabetes **Skills** 1. Central venous access devices 2. Caring for patients with chest tubes 3. Peripheral IV insertion 4. Administering intravenous push medications. 5. Caring for patients receiving patient controlled analgesia 6. Assisting with procedures. 7. Administration, nursing considerations, and complications of blood transfusions 8. **Basic code management**

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):		# credit:
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	

Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No

Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A

Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No

Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino		
SAC Administrative Liaison (type name)	Email	Date
Jane Hopkins		
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.		

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR 242	Credits:	12
Course Title: (60 characters max)	Care of Patients in Situations of Crisis and in Community-Based Settings	Transcript Title (30 characters max)	Care in Situations of Crisis
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 66 Lec/lab: 187 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Covers clinical decision-making when providing care to patients with complex physical needs. Focuses on patients experiencing acute and chronic high acuity illness; palliative and end of life care and disaster preparedness. Includes the fifth skills laboratory section in the Nursing sequence.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: NUR 241	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Develop comprehensive, holistic, individualized plans of care for patients with community based health care needs, and in planning care for patients with oncologic, cardiovascular, renal, respiratory, and neurologic problems. 2. Function with increased independence in clinical decision-making, and the application of nursing processes to patients with complex and acute problems. 3. Develop discharge plans that reflect understanding of community resources and individual patient/family needs. 4. Communicate therapeutically with patients experiencing complex and acute health care needs. 5. Assume responsibility for the "Manager of Care" role including the process of effective delegation 6. Identify nursing responsibilities related to local/national disaster response. 7. Utilize professional values and responsibilities inherent in the registered nurse role in providing nursing care.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with simulation 3. Clinical practice 4. Clinical post-conference 5. Reflective journaling 6. Written Assignments 7. Community Health Promotion Project
Outcomes assessment strategies: **(from CCOG)**	1. Satisfactory completion of three electronic patient care planning tools (75% or above complete in all categories) 2. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class 3. Weekly and final clinical performance evaluation

	4. Written assignments designed to stimulate critical thinking related to clinical experiences. 5. Oral presentation resulting from group research, analysis, and critical evaluation. 6. Written journals designed to promote integration of clinical outcomes *with* personal reflection on clinical experience. 7. Skill practice laboratory formative and summative performance evaluation 8. Completion of drug dose math exam at 90% or above. 9. ATI comprehensive student assessment program (Skill modules; practice and proctored exams).
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Concepts of Critical and Emergent Care** a. Disaster planning & emergency response **2. Community Based Nursing** a. Community and home care of adults (environmental health) **3. Community Based Nursing** a. Nursing care of patients experiencing loss, grief, and death (hospice/palliative care). 4. Nursing Care of Patients with Oncological Problems a. Physiologic and psychological effects of cancer **5. Nursing Care of Patients with Oncological Problems** a. Nursing care of patients with white blood cell disorders **6. Nursing Care of Patients with Cardiovascular Problems** a. Cardiac pharmacology b. Assessing patients with cardiovascular problems c. Infectious & inflammatory cardiac disease d. Cardiovascular rhythms: normal & abnormal; pacemakers e. Vascular & structural abnormalities f. Myocardial infarction & heart failure g. Nursing care of the child with congenital heart disease **7. Nursing Care of Patients with Renal Problems** a. Acute & chronic renal failure **8**. **Nursing Care of Patients Experiencing Trauma & Shock** **8. Nursing Care of Patients with Respiratory Problems~** a. Respiratory disorders part 2a b. Respiratory disorders part 2b **9. Nursing Care of Patients with Neurological Problems** a. Nursing care of patients with intracranial disorders

	b. Nursing care of patients with spinal cord disorders and CNS infection
	10. Nursing Care of Patients with Integumentary Problems
	a. Nursing care of patients with burns
	Skills
	1. Organize and prioritize multiple skills for complex patients with changing health care needs.
	2. Organize and prioritize medication administration orders for a team of patients.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):		# credit:
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?		☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.		

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide	No

details.	
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR 243	Credits:	8
Course Title: (60 characters max)	Preparation for Entry into Practice	Transcript Title (30 characters max)	Preparation for Entry into Practice
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 33 Lec/lab: 165 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Presents concepts in nursing management and professional nursing issues. Includes a clinical preceptorship within a health care setting.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores			
☐ Placement into:		☐ Placement into:	
course prefix & number: NUR 242	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number: NUR 244	☐ Prerequisite	☒ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Use clinical decision-making, critical thinking skills and evidence based practice in the application of the nursing process for assigned patients. 2. Communicate effectively and collaboratively with patients, families, their preceptor, and other members of the healthcare team. 3. Assume responsibility for the "Manager of Care" role; overseeing the patient plan of care for an assigned patients. 4. Compare and contrast aspects of healthcare systems and their impact on patient outcomes. 5. Within the scope of nursing improve quality of care with evidence-based practices. 6. Use sound judgment and decision-making based upon professional values and established nursing standards of care. 7. Show readiness for seeking employment as a registered nurse.
Course activities and design: **(from CCOG)**	1. Lecture 2. Skills practice lab with simulation 3. Clinical practice preceptorship 4. Clinical post-conference 5. Reflective journaling 6. Written Assignments 7. Professional Issues Project
Outcomes assessment strategies: **(from CCOG)**	1. Multiple choice, short answer, and essay questions that require integration, application, and critical examination of material covered in class 2. Formative and summative clinical performance evaluations by RN Preceptor and Instructor 3. Written assignments designed to stimulate critical thinking related to clinical experiences and readiness for entry into the nursing profession. 4. Oral presentation resulting from group research, analysis, and critical evaluation. 5. Written journals designed to promote integration of clinical outcomes with

	personal reflection on clinical experience.
	6. Completion of drug dose math exam at 90% or above.
	7. ATI comprehensive student assessment program (Practice and proctored exams)
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**1. Understanding Health Care Delivery Systems** Healthcare economics; organizational theory & structure; Methods of nursing care delivery
	2. Managing Human Resources I: Power; Collective bargaining**3. Managing Human resources II:** Managing stress & conflict resolution; Communication styles with groups & individuals
	4. Understanding Health Care Delivery System
	Styles of leadership & management; Motivation & performance appraisal**.**
	5. Knowing Your Practice
	Delegation in the clinical setting; Legal implications of managing orders
	6. Improving Care Through Quality
	Evidence based practice Prioritizing patient care
	7. OSBN Licensure and new graduate process
	Skills (in selected situations)
	1. Organize and prioritize multiple skills for complex patients with changing health care needs.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):		# credit:
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum	

office website, www.pcc.edu/curriculm.

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Nursing	Submitter name phone and email	Linda Mollino 541-867-8548 lmollino@occc.cc.or.us
Prefix and Course Number:	NUR 244	Credits:	2
Course Title: (60 characters max)	Preparation for the NCLEX-RN Exam	Transcript Title (30 characters max)	NCLEX-RN Prep
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 22 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student.* Include course recommendations in the description. (the field expands as needed)

Provides a comprehensive review and preparation for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Includes test taking strategies and critical analysis of NCLEX type questions through guided learning. Explores content areas in nursing care management; maternal, child and pediatric nursing; psychiatric and mental health nursing; adult and geriatric health; and pharmacology.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 20 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: NUR 242		☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number: NUR 243		☐ Prerequisite	☒ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Develop an individual plan for preparing for the NCLEX-RN exam 2. Recognize and apply test-taking strategies to improve performance in taking multi-format style questions 3. Employ an increased recognition of nursing concepts in nursing management, maternal, child and pediatric nursing; psychiatric and mental health nursing; adult and geriatric health; and pharmacology. 4. Evaluate client situations and determine the best nursing response in a multiple choice computerized environment that is based upon on established nursing standards and principles.
Course activities and design: **(from CCOG)**	1. Lecture 2. Standardized computerized practice exams.
Outcomes assessment strategies: **(from CCOG)**	1. Pre and post class NCLEX style computerized exams.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**I. General Exam Preparation** a. The NCLEX-RN Blueprint. b. Test-taking strategies c. Pathways to success **2. Leadership in Nursing** a. Cultural diversity b. Ethical & legal concerns c. Delegating & prioritizing care **4. Fundamental Skills** a. Safe environment

b. Medications & IV solutions
c. Perioperative nursing
d. Positioning clients
e. Care of a patient with tubes or drains
f. Nutrition
g. Laboratory values

4. Maternity Nursing
a. Female reproductive system
b. Obstetrical assessment
c. Labor & delivery
d. Postpartum period
e. Care of the newborn
f. Maternity & newborn medications

5. Growth & Development
a. Theories of growth & development
b. Developmental stages
c. Care of the older adult

6. Pediatric Nursing
a. Medication administration and calculations
b. Systems review

7. Disorders of the adult client
a. Systems review: disorders and medications.
1. Integumentary
2. Endocrine
3. Gastrointestinal
4. Respiratory
5. Cardiovascular
6. Eye/Ear
7. Neurological
8. Musculoskeletal
9. Immune
10 Acid/base and Fluid & Electrolyte disorders
b. Oncological disorders and medications
c. Mental Health Disorders and medications

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No

Name of new certificate(s):		# credit:
Name of new degree(s):	Nursing Degree	# credit: 92
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the [Related Instruction in CTE Courses](#) form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
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Linda Mollino	lmollino@occc.cc.or.us	1/17/2014
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/2014
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 100	Credits:	3
Course Title: (60 characters max)	Introduction to Aquarium Science	Transcript Title (30 characters max)	AQS 100
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 20 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	$600

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)
Examines the history of animal keeping and present-day aquatic animal husbandry industries. Explores the physical, chemical and biological processes occurring in the aquarium environment. Covers the proper set-up and maintenance of moderately sized aquaria.
Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Assess the physical, chemical and biological processes occurring in the aquatic environment. 2. Create and maintain suitable aquatic habitats. 3. Properly use associated aquarium related tools and equipment. 4. Identify employment venues and information resources. 5. Recognize major groupings of fishes and invertebrate species found in the aquarium industry and use appropriate criteria for their selection to aquarium systems.
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture, demonstration, and laboratory experience to provide necessary skills in how to properly establish and care for aquarium systems and their inhabitants. Laboratory instruction will be based at the OCCC Central Campus Aquarium Science building and will also include field trips to local public aquarium facilities.
Outcomes assessment strategies: **(from CCOG)**	• Laboratory activities and skill development sessions that utilize aquarium related tools, materials and equipment. • Set up, establish and maintain an aquarium system with live aquatic specimens. • Oral presentation project utilizing information resources for a select aquatic species (fish or invertebrate) for display, research or aquaculture within the aquarium industry. • Scheduled quizzes and examinations to evaluate knowledge of the basic physical, chemical and biological aquarium environments, along with the associated tools, materials, equipment and resources utilized.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • History of aquatic animal keeping to present-day aquatic animal husbandry. • Utilitarian and non-utilitarian uses within the aquarium industry. • The physical, chemical and biological environment of aquariums. • Common equipment, tools, materials and products used in aquarium science. • Common aquarium specimens and criteria for selection. • Set-up, establishment and maintenance of a living aquarium system.

- Information resources available within the aquarium industry.
- Career opportunities in aquarium science related organizations.
- Safe operation and trouble-shooting aquarium systems.

Concepts

- Evolution of aquatic animal husbandry over time to modern day uses of technology, technique and terminology.
- The application of aquarium science in public displays (public aquariums and zoos), aquaculture, research and the ornamental fish trade.
- Relationship between the physical, chemical and biological environment of an aquarium along with the processes and modes of filtration within each.
- Application of terminology for aquarium equipment, tools, materials and products and how these items are used on aquarium systems.
- Survey and selection of common aquarium fish and invertebrates based on compatibility, cost, care requirements and conservation status.
- Establishment of a living aquarium system including the set-up of a tank with proper, habitat, filtration, lighting and water conditioning.
- Safe and effective maintenance and troubleshooting of an established aquarium including record keeping, water quality/conditioning, animal care, observation and zoonotic disease prevention.
- Introduction to sources of information, supplies, products and services in the aquarium science industry.
- Exploration of careers in aquarium science related facilities and organizations such as public aquariums, zoos, research facilities, aquaculture facilities, hatcheries, and the ornamental fish service and supply industry.

Issues

- Maintenance of wild fish and aquatic invertebrates in a captive environment.
- Diversity of fish and aquatic invertebrate species and requirements for husbandry.
- Regulations and guidelines for obtaining and caring for fish and aquatic invertebrates.
- Safe practices of aquarium husbandry including use of tools, equipment, materials, chemicals, and zoonosis.
- Compatibility of aquarium inhabitants.
- Environmental awareness and conservation of resources associated with aquariums.

Skills

- Evaluate a safe working environment and operate equipment in a safe manner.
- Identify, select and install items for aquarium set-up (i.e. filters, heaters, lights, aeration devices, substrates).
- Create artificial saltwater and condition water for use in an aquarium.
- Properly "cycle" an aquarium inoculating, maturing and maintaining a biological filter.
- Safe and effective use and maintenance of water quality equipment (spectrophotometers, pH meters, refractometers).

	• Transfer and acclimation of live fish to an established aquarium system. • Maintenance of aquariums via water changes, cleaning of environment and water testing. • Delivery of proper foods and feeding techniques for live aquarium fish. • Record keeping and data collection for aquarium systems. • Animal observation and behavior identification. • Preparation and packing of live fish for shipping/transportation. • Resume building for a career in aquarium science. • Effective communication and coordination of husbandry schedules and practices with team member(s).

Section #2 Function of the new course within an existing and/or new program(s)

New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.

Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☒ Yes ☐ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees	No

and/or certificated that are affected by the instruction of this course? If so, provide details.	
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 110	Credits:	2
Course Title: (60 characters max)	Aquarium Science Practicum 1	Transcript Title (30 characters max)	AQS Practicum 1

Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: Lec/lab: Lab: 60

If the course is repeatable then provide a compelling argument.	

Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)

Introduces aquatic animal husbandry work environment and the care of captive aquatic animals. Emphasizes daily animal care and exhibit readiness.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)

☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: AQS 100		☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Prepare food for the animal collection and clean animal collection areas to industry standards. 2. Assist with opening and closing procedures at the aquatic facility. 3. Culture, harvest and distribute live food organisms to the animal collection. 4. Interpret exhibits and aquatic animal work areas to facility patrons in a positive and informative manner. 5. Identify fishes and invertebrate behaviors. 6. Design and implement a fish transport strategy.
Course activities and design: **(from CCOG)**	The format for this course is a combination of off-campus experiential learning, lecture, and demonstration experience. Emphasis will be placed on the skills needed for performing normal job duties in a variety of fields related to the aquarium sciences, including scientific research, aquaculture, and educational display. Lectures will concentrate on higher-level skills related to aquarium sciences including, but not limited to, specimen collection, mathematics, specimen transportation and acclimation, and workplace philosophy.
Outcomes assessment strategies: **(from CCOG)**	• Off campus time spent with professional mentors developing husbandry skills as well as professional workplace personal interaction and task performance. • Employee-style evaluations twice per term evaluate student performance at off-campus practicum site and growth throughout the term • In class exams to evaluate learning of higher level skills presented in lectures.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • Day to day reality of aquarist work in a variety of different fields and settings • Professional networking within the aquarium science field • Higher level mathematics including medical dosing and algebraic manipulation of equations • Safe operation and troubleshooting of aquarium systems • Career opportunities available within the aquarium science industry • Professional philosophies of successful employees within the aquarium science industry. Concepts • Cleaning and care of exhibits or enclosures.

	- Disinfection procedures and proper food handling. - Diet preparation and animal feeding. - Typical opening and closing procedures. - Observation and documentation of different animal behaviors. - Proper live animal and/or animal specimen handling. - Verbal interpretation of exhibits or projects. Issues - Importance of dependability in the workplace. - Balancing of budget and husbandry concerns. - Managing multi-tasking in a fast-paced environment. Skills - Goal setting and achievement in a professional environment. - Fish and Invertebrate handling/transport. - Diet planning, preparation, and delivery. - Maintenance of assigned systems with limited direct supervision. - Performance of husbandry tasks with limited supervision. - Record and verbally recount work performed. - Calculation of proper medical dosing through algebraic mathematics.

Section #2 Function of the new course within an existing and/or new program(s)

New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.

Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain)

Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 111	Credits:	2
Course Title: (60 characters max)	Aquarium Science Practicum 2	Transcript Title (30 characters max)	AQS Practicum 2

Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: Lec/lab: Lab: 60

If the course is repeatable then provide a compelling argument.	

Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:

GRADE OPTIONS: Check as many or as few options as you'd like		
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.		
	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)
Builds upon the experiences gained in AQS 110 (Aquarium Science Practicum 1). Involves participation in a higher level of aquatic animal husbandry activities including animal health procedures, long-term record keeping and life support systems training.
Addendum to course description:

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Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: AQS 110		☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Apply aquatic animal husbandry skills with captive aquatic animals. 2. Assess operational issues in order to improve animal care. 3. Diagram the flow of water from its source to its discharge location. 4. Organize and communicate system and animal observations in a clear, concise manner.
Course activities and design: **(from CCOG)**	The format for this course is a combination of off-campus experiential learning, lecture, and demonstration experience. Emphasis will be placed on the skills needed for performing normal job duties in a variety of fields related to the aquarium sciences, including scientific research, aquaculture, and educational display. Lectures will concentrate on higher-level skills related to aquarium sciences including, but not limited to, specimen collection, mathematics, specimen transportation and acclimation, and workplace philosophy.
Outcomes assessment strategies: **(from CCOG)**	• Off campus time spent with professional mentors developing husbandry skills as well as professional workplace personal interaction and task performance. • Employee-style evaluations twice per term evaluate student performance at off-campus practicum site and growth throughout the term. • In class exams to evaluate learning of higher level skills presented in lectures.
Course Content: Themes, Concepts, Issues and Skills: (from CCOG)	Themes • Day to day reality of aquarist work in a variety of different fields and settings. • Professional networking within the aquarium science field. • Higher level mathematics including medical dosing and algebraic manipulation of equations. • Safe operation and troubleshooting of aquarium systems. • Career opportunities available within the aquarium science industry. • Professional philosophies of successful employees within the aquarium science industry. Concepts • Cleaning and care of exhibits or enclosures.

	• Disinfection procedures and proper food handling.
	• Diet preparation and animal feeding.
	• Typical opening and closing procedures.
	• Observation and documentation of different animal behaviors.
	• Proper live animal and/or animal specimen handling.
	• Verbal interpretation of exhibits or projects.
	Issues
	• Importance of dependability in the workplace.
	• Balancing of budget and husbandry concerns.
	• Managing multi-tasking in a fast-paced environment.
	Skills
	• Goal setting and achievement in a professional environment.
	• Fish and Invertebrate handling/transport.
	• Diet planning, preparation, and delivery.
	• Maintenance of assigned systems with limited direct supervision.
	• Performance of husbandry tasks with limited supervision.
	• Record and verbally recount work performed.
	• Proper tracing and diagramming of water flow in a system.
	• Proper identification of common aquarium life support components.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the [Related Instruction in CTE Courses](#) form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught. Check all that apply	☐ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☒ other (explain) At a designated worksite
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 165	Credits:	1
Course Title: (60 characters max)	Current Issues in Aquarium Science	Transcript Title (30 characters max)	Current Issues in AQS
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 10 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like		
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.		
	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)
Examines the current internal and external factors that impact the operational role and function of zoological facilities with aquatic animal collections.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Discuss the benefits that a zoological facility presents to the local community and to society. 2. Understand and discuss the role of revenue streams and expenditures within a zoological institution. 3. Identify how global or regional conditions outside of a zoological organization impact its operations. 4. Understand the role of the Association of Zoos and Aquariums (AZA) and similar organizations in promoting the viability of zoological facilities.
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture and discussion based topics which provide the necessary understanding of how current issues facing zoological facilities influence their operation. Instruction will be based at the OCCC Central Campus and will include guest lectures from industry professionals.
Outcomes assessment strategies: **(from CCOG)**	• Written response papers summarizing selected weekly lecture topics. • Scheduled quizzes to evaluate knowledge of material presented in lecture and assigned reading. • Class discussions and presentation of current literature or texts relevant to the issues facing the operation of zoological facilities and their impacts on local, regional, national and global communities.
Course Content: Themes, Concepts, Issues and Skills: (**from CCOG)**	Themes • Contributions of zoological institutions on society. • Impact of societal culture, trends and economics on zoological facilities. • Internal and external politics influencing zoological facilities. • Functional departments and stakeholders of zoological organizations. • Financial management and stewardship in zoological organizations. • For-profit and non-profit zoological institutions. • Ethical issues facing zoological facilities. • Conservation issues influencing action and awareness in zoological organizations. Concepts • Exploration of contributions that zoological facilities bring to the local, regional, national and global communities. • Influence of cultural and economic demographics on zoological institution

mission, goals and operations.
- Survey of legislative, political and regulatory impacts on zoological facilities.
- Identification of the role that husbandry personnel play in the financial goals of an organization.
- Contributions of marketing and public relations in reaching organizational goals in zoological settings.
- Principles of Human Relations in zoological organizations.
- Contributions of employees to organizational goals as internal customers and resources.
- Exploration of the impacts of animal rights and welfare on zoological operations and goals.
- Impacts of conservation issues on zoological facilities such as; habitat destruction, invasive species, species population status/management, and resource demand for energy, water and raw materials.

Issues
- Conflict of financial stewardship versus mission at zoos and aquariums.
- Zoological facilities matching needs of diverse communities and audience members with institutional mission and goals.
- Ethics of maintaining live animals in zoological collections.
- Impact of zoological facilities on conservation efforts and vice versa.
- Internal and external political agendas that influence animal care facilities.

Skills
- Identify, evaluate, determine, select.
- Identify current issues, both internal and external, which impact zoological operations.
- Distinguish between revenue and expenditure within a zoological facility budget.
- Determine the criterion which defines a for-profit versus a non-profit zoological organization.
- Identify current animal welfare issues faced within zoological organizations and how they are typically managed.
- Identify current conservation issues facing zoological organizations and how they are handled both internally and externally.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes

	☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes
	☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014

Allow 3-4 months to complete the new course approval process before the course can be scheduled.

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 186	Credits:	3
Course Title: (60 characters max)	Introduction to Scientific Diving	Transcript Title (30 characters max)	Intro to Scientific Diving
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 20 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence the course description with an active verb, i.e. introduces, covers, explores, presents, continues improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description. (the field expands as needed)
Examines the technical and safety components of scientific diving and meets all academic training requirements compliant with American Academy of Underwater Sciences (AAUS) standards. Includes professional level emergency responder certification, watermanship proficiency, and authorization as a surface tender to support scientific diving operations.
Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Demonstrate a knowledge of AAUS scientific diving standards. 2. Work as an authorized scientific diving tender. 3. Act as an emergency first responder in rescue scenarios. 4. Independently create dive plans. 5. Demonstrate adequate watermanship skills while working as a tender for aquatic operations
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture and scenario based activities which provide the necessary skills and understanding of scientific diving as defined by the American Academy of Underwater Sciences standards. Instruction will be based at the OCCC Central Campus and at local/regional recreational and field locations determined by the instructor.
Outcomes assessment strategies: **(from CCOG)**	• Class discussions and participation in activity-based scenarios and demonstrations. • Scheduled quizzes and exams to evaluate knowledge of material presented in lectures based on AAUS Modules, assigned readings and demonstrations. • Evaluations for the qualification as a Divers Alert Network (DAN) First Aid for Professional Divers administrator. • Final theory exam and watermanship skills proficiency practical exam resulting in certification of scientific dive tender by AAUS.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • Scientific diving history, regulations and procedures • Diver and support equipment • Diving physiology and physics • Diving accident management and emergency procedures • Diving with compressed gases • Dive planning and logistics • Diving under special conditions Concepts

- Exploration of scientific diving principles over time to modern day uses in occupational settings.
- Influence of occupational diving regulations and regulatory agencies or organizations (OSHA, AAUS) on scientific diving operations.
- Identification, use and handling of diver and dive support equipment.
- Principles of handling high pressure cylinders and procedures when using compressed gases such as air and mixed gases (i.e. Nitrox) in dive operations.
- Considerations and impacts of diving on diver physiology such as decompression and the physical environment.
- Exploration of dive safety principles in the workplace for managing dive accidents and administering emergency procedures related to decompression illness, trauma and stress.
- Administration of diver first aid, CPR, AED and emergency oxygen administration.
- Identification of scientific diving roles and responsibilities for divers and dive tenders.
- Principles of developing and executing a proper dive plan with roles, responsibilities and logistics.
- Considerations for special dive circumstances such as diving with hazardous aquatic life, diving in confined spaces, diving in deep environments, extreme temperatures or at night.

Issues

- Requirements for maintaining scientific diving standards.
- Safety and emergency management in occupational diving environments.
- Impacts of diving on diver physiology and health.
- Regulations influencing occupational scientific dive operations.

Skills

- Understand and identify regulations impacting scientific diving operations.
- Identify types and uses of diver and dive support equipment.
- Use and handling of high pressure cylinders in dive operations.
- Identify and distinguish between diving ailments and trauma related to diving accidents and emergencies.
- Determine and deliver safe diving practices for planned occupational dives in the workplace.
- Create a scientific dive plan.
- Determine roles and responsibilities of a scientific dive team.
- Identify special conditions for scientific dive operations and their procedures.
- Act as an AAUS certified dive tender.
- Deliver first aid, CPR, AED and emergency oxygen as a DAN First Aid for Professional Divers Administer.
- Demonstrate competency of watermanship skills as a scientific dive tender.
  - o 10 minute water tread
  - o 400 yard swim without swim aids

	o 25 yard swim on a single breath

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught?. Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No

Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
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Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 215	Credits:	4
Course Title: (60 characters max)	Biology of Captive Fishes	Transcript Title (30 characters max)	Bio of Captive Fishes
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Examines the diversity, anatomy, physiology, sensory biology, and behavior of freshwater and marine fishes and the constraints placed upon them in a controlled environment.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: BI 103 or consent of Instructor	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

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

Outcomes: **(Use observable and measurable verbs)**	1. Identify basic external and internal anatomical features of fishes. 2. Identify fish species using a dichotomous key. 3. Recognize the immense diversity and variation among living fishes. 4. Describe the effects of key factors in the captive controlled environment on respiration, metabolism, immune response, food assimilation, growth, reproduction, and behavior. 5. Understand the influence of stress on fish physiology, health, and behavior. 6. Describe osmoregulatory processes of marine and freshwater fishes. 7. Develop and conduct a study of captive fish behavior.
Course activities and design: **(from CCOG)**	The course consists of lectures, laboratory exercises, student presentations, group discussion, reading, writing assignments, independent research, and field trips. Laboratory instruction will be based at the OCCC central campus Aquarium Science building.
Outcomes assessment strategies: **(from CCOG)**	• Laboratory exercises with introduction to diversity, species identification, internal and external anatomy, specimen handling, specimen collection, and behavioral observations. • Scheduled exams to evaluate knowledge of material presented in lecture, labs, and assigned reading. • Discussion and synthesis of primary scientific literature relevant to the biology of captive fishes. • Development, completion, and oral presentation of individual research projects on the behavior of captive fishes.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • Morphological, physiological, and behavioral adaptations to the external environment. • Influence of environmental factors on fish physiology and behavior. • Sources and effects of stress on fish physiology and behavior. Concepts • Classification and identification of fishes including Class, Order, Family, Genus, and Species. • Basic internal anatomy. • Morphological, physiological, and behavioral adaptations to the external

environment.

- Adaptations for respiration, osmoregulation, and movement.
- Integration and functional role of sensory, neural, and immune systems.
- Feeding and reproductive strategies of fishes.
- Influence of physical factors on fish physiology and behavior.
- Sources and effects of stress on fish physiology and behavior.

Issues

- Swimming modes.
- Buoyancy regulation in aquatic environments.
- Effect of temperature and salinity on oxygen availability in water.
- Metabolic rates and oxygen consumption.
- Tradeoffs between reproductive strategy and reproductive effort.
- Dietary requirements of fishes.
- Immune function and responses.
- Aggression and competitive interactions in captive environments.

Skills

- Identify fish species using dichotomous keys.
- Distinguish selected families of fishes.
- Dissect and identify basic external and internal anatomical features of fishes.
- Describe the function of internal organs.
- Collect, monitor, and transport live fish from the field to a captive setting.
- Evaluate and summarize primary scientific literature.
- Develop and conduct a behavioral study of captive fishes using an ethogram.
- Effective communication and presentation of experimental results.
- Prepare a written summary of research results and conclusions.
- Recognize potential stress, behavioral, and health issues that may result from changes in physical parameters or stocking density.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93

Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the [Related Instruction in CTE Courses](#) form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	OSU- LDT Bio of Captive Fish
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review

This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 216	Credits:	2
Course Title: (60 characters max)	Elasmobranch Husbandry	Transcript Title (30 characters max)	Elasmobranch Husbandry
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 20 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Explores the history of captive shark and ray management, current husbandry practices and the conservation of elasmobranchs. Emphasizes requirements associated with keeping a healthy population of elasmobranchs.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)

☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: AQS 100 or consent of Instructor		☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Identify commonly kept species of elasmobranchs (sharks, skates and rays). 2. Identify proper nutrition, commonly encountered health conditions, and common behavior associated with elasmobranchs in captive environments. 3. Discuss factors necessary for the safe handling, immobilization and transport of elasmobranchs. 4. Discuss factors influencing the long-term success in keeping elasmobranchs in controlled captive environments.
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture, demonstration, and project experience to provide necessary skills in how to properly care for elasmobranch species in a captive controlled environment. Instruction will be based at the OCCC Central Campus and will include guest lectures from industry professionals and field trips to local and regional public aquarium/zoo facilities.
Outcomes assessment strategies: **(from CCOG)**	• Participation in classroom activities and discussions. • Written paper(s) on select elasmobranch species husbandry utilizing information resources and lecture based content delivered. • Knowledge assessment through scheduled interactions with industry professionals. • Scheduled quizzes and examinations to evaluate knowledge of standard industry criteria for the identification, health management, handling and long term success of keeping elasmobranchs in a captive environment.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • History and current status of elasmobranch species kept in controlled environments. • Commonly kept elasmobranchs in aquariums. • Anatomy and physiology of elasmobranchs. • Conservation, research and educational value of elasmobranchs in aquarium collections. • Handling and transportation of elasmobranchs. • Health management of elasmobranchs in captive controlled environments. • Nutrition and growth of elasmobranchs in aquariums.

- Breeding and reproduction of elasmobranchs in captive environments.
- Behavior of elasmobranchs in aquariums.
- Unique and uncommon elasmobranch collections.

Concepts

- Evolution of elasmobranch husbandry over time to modern day techniques and associated technology.
- Survey and selection of commonly kept elasmobranchs based on compatibility, care requirements and conservation status.
- Identification of key anatomical characteristics in elasmobranchs and the relation to captive controlled environments.
- Exploration of impact of captive environments on elasmobranch behavior and physiology.
- Safe and effective application of tools and techniques in properly handling elasmobranchs during collection and transportation.
- Safe and effective application of tools and techniques in properly handling elasmobranchs during acclimation and introduction to aquarium environments.
- Safe and effective application of tools and techniques in properly handling and immobilizing elasmobranchs during routine physical examinations.
- Principles of quarantine, disease identification and treatment in managing the health of elasmobranchs in aquariums.
- Relationship of food selection, storage, handling, preparation and delivery in maintaining proper nutrition for elasmobranchs in controlled environments.
- Rationale of keeping elasmobranchs in aquariums and the role of education, conservation and research associated.
- Use of record keeping and data collection in managing elasmobranch collections in aquariums.
- Identification of reproductive strategies of elasmobranchs and their role in captive breeding programs.
- Exploration of learning behaviors of elasmobranchs and the role of enrichment to enhance and aid elasmobranch husbandry.
- Safe and effective techniques used when diving with elasmobranchs in aquariums.
- Considerations for the design and implementation of facilities, exhibitions and enclosures used for elasmobranch collections.
- Survey of unique and uncommon elasmobranchs kept in aquariums and the challenge of future collections.

Issues

- Management of wild elasmobranch species in a captive environment.
- Diversity of elasmobranch species and requirements for husbandry.
- Regulations and permits for obtaining and caring for elasmobranchs.
- Compatibility of aquarium inhabitants.
- Conservation status and ethics of keeping elasmobranchs in aquariums.
- Safe practices when handling and caring for elasmobranchs.

	Skills
	- Evaluate a safe environment and behaviors associated with handling and caring for sharks, skates and rays. - Identify and apply nomenclature of elasmobranchs commonly kept in aquariums. - Properly select and determine compatibility of elasmobranchs for aquarium collections. - Determine proper food rations for elasmobranchs in aquariums. - Identify nutritional requirements and food storage, preparation and delivery techniques for elasmobranchs in aquariums. - Identify common diseases and treatments for managing the health of elasmobranchs in aquariums. - Determine proper collection, transport and acclimation tools and techniques for elasmobranchs to aquarium systems. - Identify common standards, considerations and requirements for aquarium systems holding elasmobranchs. - Administer techniques for the immobilization of elasmobranchs. - Identify reproductive strategies and breeding requirements of elasmobranchs in aquariums. - Evaluate record keeping and data collection for elasmobranchs in captive environments. - Identify behavioral enrichment techniques and programs for elasmobranchs in aquarium collections.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum	

office website, www.pcc.edu/curriculm.

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

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SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 220	Credits:	4
Course Title: (60 characters max)	Biology of Captive Invertebrates	Transcript Title (30 characters max)	Captive Invertebrates
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Presents the life history and captive care requirements of aquatic invertebrates commonly cultured and kept in the aquatic animal industry.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: AQS 100 or consent of Instructor	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Recognize and identify internal and external features of commonly kept and cultured aquatic invertebrates. 2. Discuss the important physiologic characteristics of aquatic invertebrates including reproduction, locomotion, and osmoregulation. 3. Describe the natural life history of commonly kept and cultured aquatic invertebrates. 4. Identify the husbandry requirements for selected aquatic invertebrates. 5. Design a culture system suitable for selected aquatic invertebrates.
Course activities and design: **(from CCOG)**	The course consists of lectures, laboratory exercises, student presentations, group discussion, reading, writing assignments, independent research, and field trips. Laboratory instruction will be based at the OCCC central campus Aquarium Science building.
Outcomes assessment strategies: **(from CCOG)**	• Laboratory exercises with introduction to diversity, species identification, internal and external anatomy, specimen handling, specimen collection, and behavioral observations. • Scheduled exams to evaluate knowledge of material presented in lecture, labs, and assigned reading. • Discussion and synthesis of primary scientific literature relevant to the biology of captive invertebrates. • Development, completion, and oral presentation of individual research projects on the culture and/or care of captive invertebrates.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • Overview and history of commonly kept and cultured aquatic invertebrates. • Taxonomy of commonly kept and cultured aquatic invertebrates. • Anatomy of major phyla of aquatic invertebrates. • Physiological characteristics of commonly kept and cultured aquatic invertebrates. • Natural history of selected aquatic invertebrates. • Habitat and husbandry requirements of commonly kept and cultured aquatic invertebrates.

Concepts

- Exploration of aquatic invertebrates and their uses over time in public aquariums, home aquaria, and aquaculture businesses.
- Investigation of current techniques and technologies used in culturing selected aquatic invertebrates.
- Exploration of the impact of captive controlled environments on the behavior and physiology of selected aquatic invertebrates.
- Considerations and requirements for the husbandry of selected aquatic invertebrates such as water quality, nutrition, life support, species selection and compatibility, and health management.
- Identification and relationships in taxonomy of commonly kept and cultured aquatic invertebrates to include cnidarians, mollusks, echinoderms, arthropods and holothuroids.
- Identification of internal and external anatomy of aquatic invertebrates such as cnidarians, mollusks, echinoderms, arthropods and holothuroids.
- Investigation of physiological characteristics of aquatic invertebrates including locomotion, osmoregulation and reproduction.
- Exploration of the natural history of selected invertebrates including corals, bivalves, snails, shrimp, crabs, cephalopods, jellies, urchins, sea stars, etc.
- Considerations for the establishment of habitats and aquarium system requirements for commonly kept and cultured aquatic invertebrates.

Issues

- Osmoregulation in aquatic environments.
- Effect of temperature and salinity on oxygen availability in water.
- Metabolic rates and oxygen consumption.
- Tradeoffs between reproductive strategy and reproductive effort.
- Dietary requirements of aquatic invertebrates.
- Immune function and responses in aquatic invertebrates.
- Aggression and competitive interactions in captive environments.

Skills

- Identify proper aquarium systems for maintaining and culturing aquatic invertebrates.
- Identify husbandry requirements for commonly kept aquatic invertebrates.
- Describe taxonomy of commonly kept and cultured aquatic invertebrates.
- Identify freshwater and marine invertebrates using a dichotomous key.
- Dissect and identify major anatomical features of selected aquatic invertebrates.
- Relate physiological characteristics of selected aquatic invertebrates, such as, locomotion, osmoregulation, and reproduction to the captive controlled environment.
- Collect, transport, and introduce selected aquatic invertebrates to a captive controlled environment.
- Describe the natural history and habitat requirements of selected aquatic invertebrates.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:		

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	

If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 226	Credits:	2
Course Title: (60 characters max)	Biology of Diverse Captive Species	Transcript Title (30 characters max)	Bio of Diverse Captive Species
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 10 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Examines the basic husbandry and system requirements of a broad range of phyla found in public aquariums, research, and other zoological collections. Highlights specialized needs of selected invertebrate and fish species. Introduces challenges and considerations for reptile, amphibian, avian, and marine mammal husbandry.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: Enrollment in AQS Program or consent of Instructor	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Understand the basic husbandry requirements of diverse captive species with specialized needs. 2. Discuss the broad taxonomic groups represented in public aquarium collections. 3. Identify high risk stages in the life history of selected species. 4. Determine and describe a suitable habitat for selected species. 5. Prescribe appropriate husbandry protocol for selected species. 6. Relate legislative issues to the care of diverse captive species.
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture, group discussion, and individual research projects which provide an understanding for the basic husbandry requirements of the diverse taxonomic groups and species with specialized needs within aquarium collections. Instruction will be based at the OCCC Central Campus and will include guest lectures from industry professionals and field trips to local/regional zoological facilities.
Outcomes assessment strategies: **(from CCOG)**	• Written response papers summarizing selected weekly lectures. • Scheduled quizzes to evaluate knowledge of material presented in lecture and assigned reading. • Discussion and presentation of primary scientific literature or texts relevant to the life history of species that require highly specialized care and system design for success in captivity. • Term project in which students develop an exhibit proposal and poster presentation detailing considerations for the husbandry and system requirements for selected organisms.

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • Diversity of species within public aquarium, research, and aquaculture practices. • Husbandry requirements for diverse and unique species within aquarium collections. • Design and operation of life support systems for diverse and unique species within aquarium collections. • Habitat requirements for diverse and unique species within aquarium collections. • Maintenance of diverse and unique invertebrate and vertebrae species in captive environments. • Regulation impacting the management and care of diverse and unique species in aquarium collections. Concepts • Considerations and principles which influence the planning, design, operation, and maintenance of life support systems. • Care and husbandry of uncommon organisms in public aquarium and captive research settings. • Changes in physical and biological requirements associated with growth/ageing of organisms. • Challenges associated with the captive maintenance of species with highly specific habitat, reproductive, and dietary requirements. • Taxonomic relationships and life history characteristics of diverse captive species groups such as specialized fish and aquatic invertebrates, terrestrial invertebrates, amphibians, reptiles, birds, and mammals. Issues • Permitting, collection, and transport of species for display, research, and aquaculture. • Species-specific variation and requirements for husbandry and life support. • Successful design of habitats for species or life history stages not previously held in captivity. • Environmental awareness and conservation of captive and wild aquatic species. Skills • Design an exhibit for a species with highly specialized demands. • Evaluate and summarize primary scientific literature. • Research life history, habitat, and permitting requirements for selected species. • Animal observation and behavior identification. • Effective communication and public presentation. • Discuss issues in husbandry and exhibit design with leaders and innovators in the industry. • Distinguish between normal and abnormal appearance and behaviors of animals in public aquariums.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	

If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available:
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 232	Credits:	4
Course Title: (60 characters max)	Reproduction and Nutrition of Aquatic Animals	Transcript Title (30 characters max)	Aquatic Animal Repro/Nutri
Can this course be repeated? **PCC default is 0 repeats**	⊠ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ⊠ No	Prefix, number and title:	
GRADE OPTIONS: Check as many or as few options as you'd like **Choose the default grade option**. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.			

	Check all that apply	Default (Choose one)
A-F (letter grade)	⊠	⊠
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Presents the reproductive strategies of fishes and invertebrates in a controlled environment and the manipulation of environmental and physiological parameters that initiate reproduction. Provides the fundamentals of nutrition and nutritional requirements of selected aquatic animals throughout their life history. Presents industry standards for food handling and HACCP requirements.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: AQS 215		☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Identify common reproductive strategies of selected fishes and invertebrates. 2. Construct an environmental protocol to induce gamete maturation in commonly cultured fishes and invertebrates. 3. Apply rearing techniques for the care of offspring of commonly cultured fishes and invertebrates. 4. Formulate a suitable dietary and feeding program for aquatic animals.
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture, reading, visits to professional institutions, and laboratory experience. Activities and content focus on methods to rear aquatic animals through the early life stages, prepare diets, and properly feed captive aquatic animals. Laboratory instruction will be based at the OCCC Central Campus Aquarium Science building.
Outcomes assessment strategies: **(from CCOG)**	• Laboratory activities allow students the opportunity to produce artificial fish food, culture and evaluate live prey and employ these techniques for rearing larval and adult fish or other aquatic organisms. • Term projects are team-based activities that allow students to think critically, develop nutritional and reproductive based hypotheses and gain experience feeding and reproducing live organisms. • Scheduled quizzes periodically evaluate student knowledge and understanding of fish nutrition and reproductive biology. • Midterm exam evaluates student knowledge and comprehension of macronutrients, micronutrients, selected anti-nutrients and adventitious toxins as well as methods of diet manufacture and feeding techniques. • Final comprehensive exam evaluates student knowledge of the reproductive biology/ecology and behavior of aquatic organisms as well as basic reproductive techniques.

Course Content: Themes, Concepts, Issues and Skills: (**from CCOG)**	Themes • Energetics and macronutrients. • Micronutrients. • Additional feed components and anti-nutrients. • Digestive processes. • Feed production and feeding. • Reproductive strategies of fish and aquatic animals. • Mate selection. • Reproductive biology. • Captive spawning techniques. Concepts • Protein, lipids and carbohydrates and their function in aquatic animals. • The role of vitamins and trace metals in living organisms. Deficiencies and requirements are discussed. • Binders, stimulants and coloring agents and their function in formulated diets. • Fundamentals of digestion: Ingestion, digestion, absorption and elimination are governed by behavior as well as physical and biochemical processes. • Production and function of pelletized and extruded feeds, agglomerated particles, flake food and other particulate diets. • Reproductive strategies of fish and aquatic animals. • Mate selection and mating systems and their importance for developing captive breeding techniques. • Physiological processes governing reproduction in aquatic animals are governed by environmental and behavioral cues. • Direct and indirect methods for inducing spawning in aquatic animals. Issues • Economic and practical concerns of diet selection/formulation. • Impact of overfeeding on animal health and system effluent. • Environmental aspects of feeding captive fish, special emphasis on food fish industry. • Challenges associated with captive reproductive techniques and environmental considerations of wild-harvest. Skills • Calculation of food conversion ratio (FCR) • Read and understand feed ingredients on food packaging and data sheets. • Formulate and produce gel diet. • Culture techniques for live prey (rotifers and Artemia) • Culture and feeding techniques for larval fish or other aquatic organisms. • Strip spawning methods for fish.

Section #2 Function of the new course within an existing and/or new program(s)

New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the

degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☒ Yes ☐ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been	N/A

reached	
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available:
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 240	Credits:	4
Course Title: (60 characters max)	Life Support System Design and Operation	Transcript Title (30 characters max)	LSS Design and Operation
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Examines the role of life support systems in maintaining a balanced, stable aquatic environment. Covers how to design, construct, maintain and troubleshoot semi-closed, closed and open systems.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: AQS 215	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Identify water quality parameters impacted by life support systems and relate the use of associated equipment to evaluate aquatic environments. 2. Identify the functions and the relationships of life support system components in maintaining a balanced aquatic system. 3. Size and select appropriate life support system components and equipment for an aquatic system. 4. Trouble-shoot and remedy faulty life support system components. 5. Diagram the flow of water from its source to its discharge location. 6. Design and build an aquatic life support system.
Course activities and design: (from CCOG)	The format for this course is a combination of lecture, demonstration, and laboratory experience to provide necessary skills in how to properly design and operate life support systems for aquariums and their inhabitants. Laboratory instruction will be based at the OCCC Central Campus Aquarium Science building.
Outcomes assessment strategies: **(from CCOG)**	• Laboratory activities and skill development sessions that utilize tools, materials and equipment for the construction and operation of life support systems. • Construction and installation of a physical life support system. • Term project utilizing information resources for the planning and design of a theoretical life support system for an exhibit, aquaculture or research application. • Scheduled quizzes and examinations to evaluate knowledge of tools, materials, equipment, filtration components, water monitoring devices, and their associated selection, function and safe use within life support systems. • Final comprehensive exam includes national certification with the Aquatic Animal Life Support Operators Level One Operator certification.
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes • Design and operation of environmentally controlled life support systems. • Tools and materials for life support installation and maintenance. • Life support equipment and components. • Filtration, flow dynamics, aeration and gas exchange in controlled aquatic environments. • Water chemistry and the physical environment in aquatic life support

systems.
- Safe construction, operation and troubleshooting life support systems.

Concepts
- Considerations and principles which influence the planning and design process as well as operation and maintenance of life support systems.
- Identification of open, closed and semi-closed life support systems and the water flow characteristics of each.
- Selection, application and safe use of tools and materials appropriate for construction and maintenance of life support systems and their components.
- Theory and modes of filtration (mechanical, chemical, biological) and disinfection/sterilization.
- Relationship between filtration, flow dynamics, aeration and gas exchange in life support systems and the components and devices which influence them.
- Principles of fluid dynamics and the role of pressure and energy within pumping systems for life support.
- Role and influence of life support systems and components on water chemistry and the physical environment (temperature, pressure, lighting) in aquatic systems.
- Identification and function of life support components and devices (pumps, filters, media, aerators, reactors, conditioners, monitors and controllers) and the size and selection criteria for each.
- Exploration of team dynamics, roles and project goals for life support projects.

Issues
- Permits and regulatory agencies that influence life support system design and operation.
- Safe practices when working with life support tools, equipment and materials.
- Working with members of a team to accomplish a common goal from distinct individual roles.
- Creating energy efficient and resource responsible life support systems.

Skills
- Map and trace direction of water flow through a life support system and its components.
- Read, interpret and create basic life support schematics (P&IDs, floor plans and elevations).
- Safely use manual and power driven tools for installing various types of life support equipment and material.
- Identify goals, schedules, costs for a life support system and its components.
- Install, operate and maintain life support equipment in a safe manner.
- Identify and select appropriate PVC pipe, fittings, valves and associated materials for use on life support systems.
- Use proper techniques in plumbing PVC pipe and fittings.
- Calculate system volumes, flow rates, total dynamic head and turnover of a life support system.

	• Identify electrical components and requirements for life support equipment.
	• Read and interpret performance curves for selecting pumps.
	• Calculate and select properly sized biological filters and media surface area using bio-load and total ammonia-nitrogen.
	• Identify parts and components of key life support equipment and how they operate such as; pumps, filters, heaters, chillers, aerators, foam fractionators, UV sterilizers, ozone generators, and lighting.
	• Determine disinfection and sterilization agents and appropriate dosing levels for each.
	• Identify water quality and flow monitoring, controlling and automation devices.
	• Identify, select and control appropriate temperature devices (heaters and chillers) for aquatic systems.
	• Trouble-shoot life support problems through the use of senses; sight, sound, smell and feel.
	• Install a life support system with various components to include pumps, filters, plumbing, temperature control, aeration, and pipe and equipment supports.
	• Source information on equipment and materials from industry suppliers and professionals.
	• Communicate and coordinate life support system design and planning with project team members.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in AQS	# credit: 53
Name of new degree(s):	AAS in AQS	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three.	
If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.		

Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 245	Credits:	2
Course Title: (60 characters max)	Animal Husbandry in a Research Capacity	Transcript Title (30 characters max)	Research Husbandry
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 20 Lec/lab: Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Examines the use of fish in research as well as the regulatory and ethical issues associated with this practice. Presents common procedures, protocols and research methodology such as husbandry, anesthesia, biopsy, blood draws, minor surgeries, field study, behavioral techniques, and euthanasia.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)				
(double click on check box to activate dialog box)				
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores				
☐ Placement into:		☐ Placement into:		
course prefix & number: AQS 100 or instructor permission		☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Explain the role of Institutional Animal Care and Use Committee or similar entity that is responsible for monitoring the quality of animal care at a research facility. 2. Distinguish between animal rights and animal welfare perspectives. 3. Develop a Standard Operating Procedure for the transport, acclimation, quarantine, feeding and husbandry of a healthy population of fish for research purposes. 4. Discuss the responsibilities of the aquarist or animal husbandry technician as it relates to fish husbandry and welfare. 5. Implement measures to reduce workplace hazards.
Course activities and design: **(from CCOG)**	The format for this course is a combination of online lecture materials (The Experimental Fish Course, University of Prince Edward Island, Canada), associated readings, field trips and development of a Standard Operating Procedure for a fish holding facility. Field trips will utilize the aquatic research facilities located at the Hatfield Marine Science Center, Oregon State University Main Campus and University of Oregon.
Outcomes assessment strategies: **(from CCOG)**	• Each student will participate in a group project to develop a Standard Operating Procedure for an existing aquatic animal holding or support system. • Oral presentations utilizing the information used to develop the Standard Operating Procedures and focusing on the rationale for the developing the specific actions outlined in the Standard Operating Procedures. • Scheduled quizzes at the conclusion of each online lecture module to evaluate knowledge acquired regarding the use of aquatic animals in the research setting upon completion of each of the seven modules. Successful completion of the online modules results in Experimental Fish Certification through the University of Prince Edward Island.

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes
	- Regulations associated with experimental aquatic animal care and use. - Ethical issues associated with experimental aquatic animal care and use. - Unique aspects of using fish as a research model. - Essential components of aquatic animal holding facilities. - Essential aspects of daily aquatic animal care for animal housed in aquatic research facilities. - A basic overview of disease identification and management in captive aquatic research settings. - Basic principles of fish anesthesia and euthanasia. - Principles of occupational health and safety in aquatic animal facilities. Concepts - Review of the key federal laws and policies and state statutes. regulating the use of aquatic animals in the research setting. - The charge, responsibilities and role of the institutional animal care and use committee in providing oversight for aquatic animal research and care at a research institution. - The evolution of the animal welfare movement and its impact on aquatic animal research. - The concepts of scientific integrity and the principles of the Three R's (Replacement, Reduction, Refinement) in aquatic animal research. - The evolution of fish as experimental models and an overview of the common fish species used in research. - The role of the animal care technician and the veterinarian in aquatic animal research. - Review the common aquatic animal holding systems and their key component utilized in aquatic animal research. - The key facility operation and maintenance issues. - The development of Standard Operating Procedures. - The daily husbandry and health management procedures necessary to ensuring healthy aquatic animals. - Key concepts in disease prevention and identification. - Husbandry practices as a predisposing factor to disease. - Key concepts of fish anesthesia and euthanasia. - Common human hazards associated with aquatic research facilities and preventive strategies. Issues - The regulatory and social environment impacting utilizing aquatic animals in research. - The role of the aquatic animal care technician is the maintenance of aquatic animals. - The common holding systems and procedures utilized to ensure the health of aquatic animals and the integrity of the research utilizing these animals.

	Skills	• The common human hazards associated with the aquatic research facility. • Describe the key laws and policies regulating the use of aquatic animals in a research setting. • Describe the role of the Institutional Animal Care and Use Committee. • Identify the key components of the common aquatic animal holding systems utilized in aquatic animal research. • Describe the key protocols and procedures used to manage the health of fish utilized in a research setting. • Develop a standard operating procedure for a fish holding or fish support facility. • Identify common human hazards associated with an aquatic animal research facility.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic	No

Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information				
Department:	Aquarium Science		Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 252		Credits:	4
Course Title: (60 characters max)	Exhibits and Interpretation		Transcript Title (30 characters max)	Exhibits and Interpretation
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.				
Is this course equivalent to another? They must have the same description, outcomes and credit.		☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like		
Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.		
	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Introduces the principles of exhibit development and interpretive presentations. Covers projects in exhibit planning, performing interpretive presentations, and writing interpretive pieces. Emphasizes the process of developing exhibits and interpretation from conceptual statement through fabrication, performance, or publication.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: AQS 215 or Consent of Instructor	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Serve as a contributing member of an exhibit planning team, supporting the process of creating an exhibit and the roles of others on the team. 2. Apply the principles of interpretation to the programs that husbandry staff are frequently asked to perform. 3. Identify criteria, considerations and components for the design and implementation of aquarium tanks, lighting, interior tank habitats, and live animal collections. 4. Write effective interpretive material for exhibits, newsletters, and brochures. 5. Describe what makes an effective exhibit, and evaluate exhibits and interpretation using industry standard criteria. 6. Apply industry related information resources to the design and development of aquarium exhibits and interpretation.
Course activities and design: **(from CCOG)**	The format for this course is a combination of lecture, demonstration, and project experience to provide necessary skills in how to properly plan and design effective aquarium exhibits and interpretation. Instruction will be based at the OCCC Central Campus and will utilize the Aquarium Science Building. Field trips to local and regional public aquarium/zoo facilities will be included.
Outcomes assessment strategies: **(from CCOG)**	• Participation in classroom activities and discussions that utilize exhibit development tools and techniques. • Team term project utilizing information resources and tools for the development and design of a theoretical aquarium exhibit which includes the creation of a three dimensional scale model of the proposed exhibit concept. • Delivery of a public oral interpretive presentation on an exhibit topic related to the term project. • Scheduled quizzes and examinations to evaluate knowledge of standard industry criteria used in the design, development, planning, execution and evaluation of exhibits and interpretation.

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes
	• Principles of design, development, planning and evaluation of aquarium exhibits and interpretive programs.
	• Tools and components for the development and construction of effective aquarium exhibits.
	• Exhibit design and development project teams.
	• Learning styles, preferences, needs and types of audiences visiting aquariums.
	• Development of aquarium exhibits for education, entertainment, and motivation of audiences.
	• Style, technique and delivery of effective interpretive programs and presentations for the public.
	Concepts
	• Identification and differentiation of aquarium exhibit types; collections-based, interactive, immersive, permanent or temporary.
	• Exploration of team dynamics including the roles and responsibilities of the exhibit design and development team.
	• Role of animal husbandry staff in the exhibit and interpretation design and development process.
	• Relationship between schedule, cost and goals for an aquarium exhibit project.
	• Criteria and considerations for effective exhibit design, development and implementation.
	• Development of concepts, themes, messages, objectives, narratives and evaluations for exhibits and interpretive programs.
	• Identification and selection of tools, materials and components for the design and construction of aquarium exhibits, interactive items, graphics, and interpretive elements.
	• Consideration and criteria for components used in the design and implementation of aquarium tanks, lighting, interior tank habitats, and live animal collections.
	• Exploration of learning styles and special needs in formal and informal education settings within public aquariums, zoos, nature centers and museums.
	• Principles and techniques of connecting an audience with exhibits through motivation, provocation, interaction and interpretive programming.
	Issues
	• Impact of schedule and cost on exhibit design, development and implementation.
	• Working with members of a team to accomplish a common goal from distinct individual roles.
	• Permits, laws and regulatory agencies that influence exhibit projects.
	• Meeting special needs and requirements for diverse audiences.
	Skills
	• Identify types of aquarium exhibits and utilize proper terminology for their development.
	• Communicate, coordinate and work as an effective member of an exhibit

design team.

- Develop a concept statement for an aquarium exhibit idea.
- Create a component script and narrative for a proposed aquarium exhibit.
- Differentiate between circulation, way-finding and orientation in exhibit design.
- Develop a live animal collection plan and husbandry design brief for an aquarium exhibit.
- Identify and differentiate between schematic drawings, floor plans, elevations and isometrics as exhibit design tools.
- Create a schematic floor plan and a three dimensional scale model of an aquarium exhibit.
- Identify ways to reach diverse audiences with various learning styles, preferences and needs.
- Generate and deliver an interpretive outline for an aquarium exhibit to a public audience.
- Use of facts, interactivity, objects, voice and body language as techniques in delivering interpretation.
- Participate in exhibit planning meetings and record minutes.
- Develop tools for evaluating aquarium exhibits.
- Identify techniques to enhance internal aquarium tank environments and create natural and artificial environments for aquarium species.

Section #2 Function of the new course within an existing and/or new program(s)		
New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.		
Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☒ Yes ☐ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.		

Portland Community College

New Course
Career Technical Education (CTE)

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

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 270	Credits:	4
Course Title: (60 characters max)	Fish and Invertebrate Health Management	Transcript Title (30 characters max)	Fish Health Management
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: 30 Lec/lab: 20 Lab:
If the course is repeatable then provide a compelling argument.			
Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:	

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Examines the common techniques and rationale for fish and invertebrate health management.

Covers the common infectious and non-infectious diseases and disease management strategies for captive fish and invertebrates.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)			
(double click on check box to activate dialog box)			
☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: AQS 215 or Consent of Instructor	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Identify the common signs of disease in fish and invertebrates. 2. Describe the common infectious and non-infectious diseases associated with captive aquarium fish. 3. Demonstrate proper use and maintenance of laboratory instrumentation. 4. Demonstrate proper necropsy and sample collection techniques. 5. Formulate a health management and biosecurity plan based upon the results of diagnostic testing, water quality measurements and professional consultation. 6. Perform common treatment methodologies.
Course activities and design: **(from CCOG)**	The format of this course is a combination of lecture, demonstration, case-based activities, written assignments and laboratory experience to provide the necessary skills to develop disease prevention strategies identify disease and develop treatment/management plans for aquarium systems and their inhabitants.
Outcomes assessment strategies: **(from CCOG)**	• Laboratory activities and skill development sessions that utilize tools, materials and equipment for prevention and identification of common health problems associated with aquarium fish. • Term project utilizing information and resources to develop a biosecurity plan for a selected animal holding facility. • Case–based activities that utilize skills and knowledge to identify health and animal holding system problems and develop treatment and management strategies. • Scheduled quizzes and examinations to evaluate knowledge of tools, materials, equipment, procedures and problem solving associated with common fish and invertebrate health problems encountered in the captive setting. • Writing assignments that utilize the knowledge and skills of fish and invertebrate health management to communicate common diseases, management and husbandry practices to professional colleagues.

Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	Themes - Goals and core practices associated with fish and invertebrate health management. - Applied aspects of fish anatomy, physiology and immunology as they relate stress management and disease prevention. - Key principles and practices of biosecurity in an aquarium facility. - Common approaches to disease identification and management. - Common non-infectious diseases of fish and invertebrates and the predisposing factors for such diseases. - Common infectious diseases of fish and invertebrates and the predisposing factors for such diseases. - Treatment and management of common fish and invertebrate health problem. - Emerging issues in fish and invertebrate welfare and health management. Concepts - Consideration of the main principles and goals of fish health management. - Review of the common anatomical features of major fish and invertebrate groups. - Review of key aspects of fish anatomy, physiology and immunology as they relate to the captive management of fish and invertebrates. - The role of epithelium and gills for respiration, osmoregulation and resistance to infectious agents. - The response of the epithelium and gills to damage and disease. - The basics of the immune response in fish and common invertebrates maintained in aquaria. - The physiological stress response in fish and invertebrates. - Common husbandry factors associated with the physiological stress response. - Common approaches to the identification of disease in fish and invertebrates. - The problem oriented approach to disease identification. - Common signs of disease and distress in fish and invertebrates. - The basic fish and invertebrate health work-up. - Evaluation of a life support system in the face of an animal health problem. - Non-infectious diseases of fish and invertebrates and the common factors predisposing animals to these diseases. - Nutritional diseases - Neoplastic diseases - Environmental diseases - Traumatic injury - Infectious diseases of fish and invertebrates and the common factors predisposing animals to these diseases. - Common bacterial disease of aquarium species. - Common Viral diseases of aquarium species. - Common mycotic diseases of aquarium species. - Common parasites of aquarium species.

- ▪ Protozoan diseases.
- ▪ Metazoan diseases.
- Common considerations and techniques for treatment and disease management utilized for aquarium species.
  - o Changes in husbandry practices
  - o Waterborne treatments
  - o Nutritional strategies
  - o Oral treatment strategies
  - o Injectable treatments
  - o Principles of vaccination
- Emerging issues on fish and invertebrate welfare and health management.
  - o Pain perception and assessment on fish and invertebrates.
  - o Assessment of fish and invertebrate welfare.
  - o How sensory stimuli affect fish and invertebrate health.
  - o New approaches to training and enrichment of captive fish and invertebrates.

Issues

- Regulatory considerations for the treatment of fish and invertebrate species.
- Potential risks to animals associated with particular treatment strategies of combinations of therapeutics.
- Safe handling practices when working with common aquarium species.
- Working as a member of a health management team.
- Current thinking about fish and invertebrate welfare and its potential impact on aquarium husbandry techniques.

Skills

- Identify the common anatomical features of common fish and invertebrate groups.
- Demonstrate proper necropsy techniques and sample collection for submission to a diagnostic laboratory.
- Demonstrate proper safe fish and invertebrate handling techniques.
- Demonstrate proper techniques for a physical examination, skin scrape, gill biopsy and blood collection for common aquarium fish and invertebrates.
- Calculate the proper dose for sedation and euthanasia of common fish and invertebrate species.
- Demonstrate the proper use of the microscope.
- Read and interpret common diagnostic laboratory findings and water quality results to identify the probable cause(s) of a fish or invertebrate health problem. Recognize when veterinary consultation is necessary.
- Trouble-shoot life support problems associated with a fish health event through the interpretation of water quality measurements and the use of senses; sight, sound, smell.
- Develop a treatment and management protocol based upon facility/system history, animal behavior, diagnostic findings, water quality results and veterinary consultation.
- Calculate system volumes and common drug dosages and durations for

	commonly used drugs and chemicals.
	• Develop a biosecurity plan for an aquatic animal holding facility.
	• Communicate and coordinate the development of a biosecurity plan with other members of the project team.
	• Work as a member of a team to develop preventive health management strategies and a response to a disease outbreak.

Section #2 Function of the new course within an existing and/or new program(s)

New CTE courses must be attached to a degree and/or certificate. They cannot be offered until the degree or certificate is approved. Please answer below, as appropriate.

Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?		☐ Yes ☒ No
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?		☒ Yes ☐ No
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☒ Yes ☐ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses

How or where will the course be taught? Check all that apply	☒ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☐ other (explain) Independent Study
Transferability: Will this course transfer to another academic institution? Identify	No
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs	No

or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
This signature block is NOT to be used in lieu of the signature page. Please return the completed signature page with the pdf file to Curriculum – DC – 4th floor.		

Portland Community College

New Course
Career Technical Education (CTE)

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

Section #1 General Information			
Department:	Aquarium Science	Submitter name phone and email	Chris Spaulding, 541-867-8678 chris.spaulding@occc.cc.or.us
Prefix and Course Number:	AQS 295	Credits:	12
Course Title: (60 characters max)	Aquarium Science Internship	Transcript Title (30 characters max)	AQS Internship
Can this course be repeated? **PCC default is 0 repeats**	☒ No ☐ Yes	How many times?	Contact hours: PER QUARTER	Lecture: Lec/lab: Lab: 360

If the course is repeatable then provide a compelling argument.	

Is this course equivalent to another? They must have the same description, outcomes and credit.	☐ Yes ☒ No	Prefix, number and title:

GRADE OPTIONS: Check as many or as few options as you'd like

Choose the default grade option. What is the default grade? This will be the option listed at the top of the dropdown menu for the CRN. Students who do not make a choice or do not make a change in the dropdown menu will automatically be assigned to the default grade option. Call the Curriculum Office if you have questions 971-722-7813. For more details on grade options see the Academic Standards and Practices Handbook.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☐	☐
Audit in consultation with faculty	☐	☐

Course or program fee: (Identify only fees which are independent of the standard lab fee)	

Course Description: Begin each sentence in the course description with an active verb, i.e. introduces, covers, explores, presents, continues, improves . . . Don't use the words: *course* and/or *student*. Include course recommendations in the description (the field expands as needed).

Provides the experience of daily diligence, responsibilities and rewards of the aquatic animal husbandry profession at an aquatic animal facility. Presents daily animal care and facility readiness routines, assisting life support staff and animal health management professionals, and evaluation of operational aspects of the facility.

Addendum to course description:

Identify prerequiste, corequisite and concurrent course(s)
(double click on check box to activate dialog box)

☒ Standard Prerequisites - WR 115, RD 115 and MTH 65 or equivalent placement test scores			
☐ Placement into:	☐ Placement into:		
course prefix & number: AQS 111	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number: AQS 270	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number: Department permission required	☒ Prerequisite	☐ Corequisite	☐ pre/co

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Three to six outcomes are recommended. See course outcomes guidelines on the curriculum website for more guidance on writing good outcomes.	
Outcomes: **(Use observable and measurable verbs)**	1. Apply aquatic animal husbandry skills with aquatic systems and captive aquatic animals. 2. Evaluate and participate in the delivery of aquatic animal nutrition, sanitation and bio-security programs at an aquatic animal care facility. 3. Enter data and extract information within record keeping and databases used by the industry. 4. Discuss historic and current animal health management of captive aquatic animals within an aquatic animal care facility. 5. Evaluate and participate in the delivery of water quality management program within an aquatic animal care facility. 6. Identify components, configuration and operational requirements of life support systems within an aquatic animal care facility. 7. Identify and discuss aquarium exhibits in regard to their design, thematic delivery and operational requirements at an aquatic animal care facility.
Course activities and design: **(from CCOG)**	The format for this course is a combination of off-campus experiential work place learning at an aquatic animal care facility or institution of choice, with online discussions and assignments. Emphasis will be placed on the skills needed for performing normal job duties in a variety of fields related to the aquarium sciences, including scientific research, aquaculture, and/or educational display. Students participating in the course are responsible for pursuing and attaining the internship through the application and selection process administered by the internship site of their choosing. Placement into the course is based on successful completion of the Aquarium Science Program core curriculum and/or approval by the program director.
Outcomes assessment strategies: **(from CCOG)**	• Work log for hours spent with professional mentors developing husbandry skills as well as professional workplace personal interaction and task performance. • Employee-style evaluations twice per term evaluate student performance at off-campus internship site and growth throughout the internship duration. • On line distance learning discussions and written assignments reflective of

	learning outcomes for course (i.e. husbandry techniques, operational strategies, nutrition, animal health and water quality management, record keeping, life support systems and exhibits).
Course Content: Themes, Concepts, Issues and Skills: **(from CCOG)**	**Themes** • Applied aquatic animal husbandry skills, knowledge and techniques. • Record keeping and data collection for aquarium systems and animal care. • Food preparation and feeding for aquatic animals in controlled environments. • Water quality testing and analysis for aquarium systems. • Life support system layout, equipment and operation of aquarium systems. • Aquatic animal health management and programs. • Exhibit development, design and operational requirements. **Concepts** • Maintenance and cleaning of exhibits and associated work areas using site available materials and techniques. • Practical application of record keeping and data collection for feeding, maintenance, animal inventories, animal health/treatment, life support systems, water quality and general husbandry. • Considerations for food preparation and feeding of aquatic animals within the aquatic animal care industry. • Identification and function of life support components and devices at an aquatic animal care facility within the industry. • Industry standards for the collection, testing and analysis of water quality and water quality instrumentation at aquatic animal care facilities. • Principles of aquatic animal health management programs such as quarantine, disease recognition/treatment and bio-security at aquarium facilities. • Exploration of exhibits and their design, development and execution at aquatic animal care facilities. • Considerations for time management and prioritization of tasks related to daily operations and husbandry at aquarium facilities. • Working as an effective team member within a professional aquatic animal care team. **Issues** • Diverse applications of animal husbandry techniques and methods across aquarium science industry. • Time management and prioritization of animal husbandry related tasks. • Safe working practices related to animal husbandry and operational expectations within organizations. • Communication and organization within aquatic animal care teams. **Skills** • Routine maintenance and cleaning of aquarium enclosures, systems and components.

	• Routine record keeping and data collection. • Food preparation and feeding of aquatic animals (i.e. commercially prepared, fresh frozen, and/or live foods). • Identify disease, disease agents and associated treatments within the animal health management plan of a facility. • Calculate commonly used medications including anesthetics, antibiotics and anti-parasitic compounds. • Administer medications via tube feeding, injection, topical and bath immersive techniques. • Identify components and map the water flow through life support systems. • Collect water samples and test for water quality results using industry standard laboratory instrumentation. • Assess effective exhibit design and make recommendations for exhibits. • Work as an effective member of an aquatic animal husbandry team.

Section #2 Function of the new course within an existing and/or new program(s)		
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Rationale for the new course.	Oregon Coast Community College Course	
Will this new course be part of an existing, currently approved PCC certificate and/or degree?	☐ Yes ☒ No	
Name of certificate(s):		# credit:
Name of degree(s):		# credit:
Will this new course be part of a new, proposed PCC certificate or degree?	☒ Yes ☐ No	
Name of new certificate(s):	Certificate in Aquarium Science	# credit: 53
Name of new degree(s):	AAS in Aquarium Science	# credit: 93
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Program Requirement	

Is this course used to supply related instruction for a certificate?	☐ Yes ☒ No
If **no** is selected continue to part three. If **yes** is selected complete the Related Instruction in CTE Courses form available on the curriculum office website, www.pcc.edu/curriculm.	

Section #3 Additional Information for new CTE courses	
How or where will the course be taught? Check all that apply	☐ on campus ☐ hybrid ☐ on-line (complete DL Modality form, obtain signature and submit to the DL office) ☒ other (explain) Internship
Transferability: Will this course transfer to	No

another academic institution? Identify	
Impact on other Programs and Departments	
Are there other degrees and/or certificated that are affected by the instruction of this course? If so, provide details.	No
Are there similar courses existing in other programs or disciplines at PCC? If yes, provide details and/or describe the nature of acknowledgments and/or agreements that have been reached.	No
Identify and consult with SAC chairs who may be impacted by this course such as content overlap, course duplication, prerequisite, enrollment, etc.	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	N/A
Is there any potential impact on another department of campus?	
If yes, explain and/or describe the nature of acknowledgments and/or agreements that have been reached	No
Implementation term:	☐ Next available term after approval ☒ Specific term AFTER next available: Fall 2014
Allow 3-4 months to complete the new course approval process before the course can be scheduled.	

Section # 4 Department Review		
This proposal has be reviewed at the SAC level and approved for submission. You may type the names, a signature is not required.		
SAC Chair (type name)	Email	Date
Chris Spaulding	Chris.spaulding@occc.cc.or.us	1/17/14
SAC Administrative Liaison (type name)	Email	Date
Jane Hodgkins	jhodgkins@occc.cc.or.us	1/17/14
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Related Instruction for CTE Courses

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

General Information

Department:	Aquarium Science	Submitter:	Chris Spaulding
Prefix and Course Number:	AQS 100	Submitter Phone and Email:	541-867-8678 Chris.spaulding@occc.cc.or.us
Credit	3	Course Title:	Introduction to Aquarium Science

Details of Related Instruction guidelines for identifying related instruction

Identify the number of hours and the course activities in the areas of:

1) computation, 2) communication and 3) human relations.

Please be as specific as possible about the nature of the activities and instruction

A result of the NWCCU report is that related instruction must be identified within a course outcome.

Computation	Hours of instruction (include study and/or practice in and out of the classroom, 30 hours per credit)	8 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with computation.

- Assess the physical, chemical and biological processes occurring in the aquatic environment.
- Properly use associated tools and equipment.
- Create and maintain suitable aquatic habitats.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Data collection and interpretation of results for aquarium systems.
- Calculate the water volume of a closed prism and cylinder given area measurements
- Convert water quality parameters and water conditioning additives between various units (i.e. mg, ml, gallons, liters, and cubic inches)

Communication	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	8 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with communication.

- Assess the physical, chemical and biological processes occurring in the aquatic environment.
- Properly use associated tools and equipment
- Identify employment venues and information resources.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Oral presentation project utilizing information resources for a select aquatic species (fish or invertebrate) for display, research or aquaculture within the aquarium industry.
- Identify and communicate information resources available within the aquarium industry.

- Application and use of terminology for aquarium equipment, tools, materials and products and how these items are used on aquarium systems.
- Record keeping and communication of water quality/conditioning, animal care and observation.
- Communicate a safe working environment and operate equipment in a safe manner.
- Resume building for a career in aquarium science.
- Effective communication and coordination of husbandry schedules and practices with team member(s).
- Networking with professionals, vendors and suppliers to acquire information, supplies, products and services in the aquarium science industry.

Human Relations	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	12 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with human relations.

- Create and maintain suitable aquatic habitats.
- Properly use associated tools and equipment.
- Identify employment venues and information resources.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Set-up, establishment and maintenance of a living aquarium system with partner
- Network with aquarium professionals to learn about career opportunities in aquarium science related organizations
- The application of aquariums as public displays for communicating conservation and educational messaging.(public aquariums and zoos)
- Communicate a safe working environment and operate equipment within a team.
- Resume building for a career in aquarium science.
- Effective communication and coordination of husbandry schedules and practices with team member(s).

This request will remain in pending status until the hard copy, with appropriate signatures, is received by the curriculum office. Missing Information may cause the request to be returned.

After submitting this form, a confirmation and signature page will be sent to DC – 4th floor.

Instructor Qualifications
This section is to be reviewed and approved by the Vice President of Academic and Student Affairs. Curriculum Committee recommendation is not required.
Instructors qualified to teach related instruction in **computation, communication, and/or human relations** will have the following acceptable subject area skills, education or training. Provide details

Identify area(s) of related instruction	Clearly identify qualifications instructors must have to teach EACH area as identified above

☐ Computation	B.S. Life Science and five years experience in the aquarium science industry.
	Demonstrated background and experience working in related field of the aquarium science industry with the ability to:
	• Calculate and prescribe appropriate dosages for aquarium water conditioners, supplements and additives
	• Calculate system water volumes
	• Prepare and test water quality parameters using related equipment
	• Evaluate water quality results
	• Formulate and deliver effective data collection for aquarium system care.
☐ Communication	B.S. Life Science and five years experience in the aquarium science industry.
	Demonstrated background and experience working in related field of the aquarium science industry with the ability to:
	• Understand and explain resource information used in the aquarium industry and related fields
	• Develop and evaluate effective record keeping for aquarium systems
	• Practice and communicate safe working practices for laboratory and aquarium husbandry spaces, equipment and materials
	• Manage aquarium husbandry related tasks and teams.
	• Instruct and evaluate research topics and oral presentation techniques.
☐ Human Relations	B.S. Life Science and five years experience in the aquarium science industry.
	Demonstrated background and experience working in related field of the aquarium science industry with the ability to:
	• Understand and communicate criteria for employee selection into careers in aquarium science.
	• Evaluate and help construct effective resumes for individuals seeking employment in aquarium science.
	• Effectively manage husbandry related tasks and teams

Related Instruction for CTE Courses

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

General Information

Department:	Aquarium Science	Submitter:	Chris Spaulding
Prefix and Course Number:	AQS 232	Submitter Phone and Email:	541-867-8678 Chris.spaulding@occc.cc.or.us
Credit	4	Course Title:	Reproduction and Nutrition of Aquatic Animals

Details of Related Instruction guidelines for identifying related instruction

Identify the number of hours and the course activities in the areas of:

1) computation, 2) communication and 3) human relations.

Please be as specific as possible about the nature of the activities and instruction

A result of the NWCCU report is that related instruction must be identified within a course outcome.

Computation	Hours of instruction (include study and/or practice in and out of the classroom, 30 hours per credit)	12 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with computation.

- Formulate a suitable dietary and feeding program for aquatic animals.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Measure and dose trace elements and vitamins for aquatic animal diets.
- Measure binders, stimulants and coloring agents and their function and add into formulated diets.
- Economic and practical concerns of diet selection/formulation.
- Calculation of food conversion ratio (FCR)
- Formulate and produce gel diet.

Communication	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	4 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with communication.

- Identify common reproductive strategies of selected fishes and invertebrates.
- Apply rearing techniques for the care of offspring of commonly cultured fishes and invertebrates.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Oral presentation on the development of a nutritional and reproductive based hypotheses and research project and communication of results.
- Read and understand feed ingredients on food packaging and data sheets used for raising aquatic animals.
- Conduct and communicate culture and feeding techniques for live prey, larval fish, and/or other aquatic organisms.

Human Relations	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	12 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with human relations.
• Construct an environmental protocol to induce gamete maturation in commonly cultured fishes and invertebrates. • Apply rearing techniques for the care of offspring of commonly cultured fishes and invertebrates.
Content (Activities, Skills, Concepts, etc.): provide details or specifics
• Laboratory activities require students the opportunity to work in teams to produce artificial fish food, culture and evaluate live prey and employ these techniques for rearing larval and adult fish or other aquatic organisms. • Team-based activities and team term project that allow students to think critically, develop nutritional and reproductive based hypothesis and protocol to induce gamete maturation.
This request will remain in pending status until the hard copy, with appropriate signatures, is received by the curriculum office. Missing Information may cause the request to be returned.
After submitting this form, a confirmation and signature page will be sent to DC – 4th floor.

Instructor Qualifications
This section is to be reviewed and approved by the Vice President of Academic and Student Affairs. Curriculum Committee recommendation is not required.
Instructors qualified to teach related instruction in **computation, communication, and/or human relations** will have the following acceptable subject area skills, education or training. Provide details

Identify area(s) of related instruction	Clearly identify qualifications instructors must have to teach EACH area as identified above
☐ Computation	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in the field of aquarium science and/or applied research in aquatic animal nutrition with the ability to: • Explain and demonstrate the calculation of energetics, macronutrients, and micronutrients as applied to aquatic nutrition • Explain appropriate feed production and feeding amounts for aquatic animal nutrition and reproduction. • Discuss economic concerns of diet selection and formulation • Formulate and produce diets for aquatic specimens • Calculate food conversion ratios (FRC)
☐ Communication	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in the field of aquarium science and/or applied research in aquatic animal nutrition with the ability to: • Assess oral presentations and research techniques related to aquatic animal nutrition and reproduction • Deliver content and explain effective communication of content outlined in the Course Content and Outline Guide for the course.

☐ Human Relations	B.S. Life Science and five years experience in the aquarium science industry.
	Demonstrated background, academic knowledge and/or work-related experience in the field of aquarium science and/or applied research in aquatic animal nutrition with the ability to:
	• Manage team based research projects and laboratory activities which require interpersonal skills and conflict resolution.

Related Instruction for CTE Courses

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

General Information

Department:	Aquarium Science	Submitter:	Chris Spaulding
Prefix and Course Number:	AQS 240	Submitter Phone and Email:	541-867-8678 Chris.spaulding@occc.cc.or.us
Credit	4	Course Title:	Life Support System Design and Operation

Details of Related Instruction guidelines for identifying related instruction

Identify the number of hours and the course activities in the areas of:

1) computation, 2) communication and 3) human relations.

Please be as specific as possible about the nature of the activities and instruction

A result of the NWCCU report is that related instruction must be identified within a course outcome.

Computation	Hours of instruction (include study and/or practice in and out of the classroom, 30 hours per credit)	18 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with computation.

- Identify water quality parameters impacted by life support systems and relate the use of associated equipment to evaluate aquatic environments.
- Size and select appropriate life support system components and equipment for an aquatic system.
- Design and build an aquatic life support system.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Measurements related to the construction and installation of a physical life support system.
- Lab assignments, quizzes and exams with computation using applied mathematics
- Principles of fluid dynamics and the role of pressure and energy within pumping systems for life support.
- Identify costs for a life support system and its components.
- Calculate system volumes, flow rates, total dynamic head and turnover of a life support system.
- Read and interpret performance curves for selecting pumps.
- Calculate and select properly sized biological filters and media surface area using bio-load and total ammonia-nitrogen.

Communication	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	6 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with communication.

- Size and select appropriate life support system components and equipment for an aquatic system.
- Trouble-shoot and remedy faulty life support system components.
- Design and build an aquatic life support system.

Content (Activities, Skills, Concepts, etc.): provide details or specifics
- Written team term project with oral presentation utilizing role playing and information resources for the planning and design of a theoretical life support system for an exhibit, aquaculture or research application.   - Communication of safe practices when working with life support tools, equipment and materials.   - Communicating with members of a team to accomplish a common goal from distinct individual roles.   - Identification and use of correct terminology for life support systems and their components.   - Map and trace direction of water flow through a life support system and its components.   - Read, interpret and create basic life support schematics (P&IDs, floor plans and elevations).   - Read and interpret performance curves for selecting pumps.

Human Relations	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	12 hours
Course Outcome: Copy from the CCOG the outcome(s) which is associated with human relations.		
- Size and select appropriate life support system components and equipment for an aquatic system. - Design and build an aquatic life support system.		
Content (Activities, Skills, Concepts, etc.): provide details or specifics		
- Team term project utilizing role playing and information resources for the planning and design of a theoretical life support system for an exhibit, aquaculture or research application. - Exploration of team dynamics, roles and project goals for life support projects. - Working with members of a team to accomplish a common goal from distinct individual roles.		
This request will remain in pending status until the hard copy, with appropriate signatures, is received by the curriculum office. Missing Information may cause the request to be returned.		
After submitting this form, a confirmation and signature page will be sent to DC – 4th floor.		

Instructor Qualifications	
This section is to be reviewed and approved by the Vice President of Academic and Student Affairs. Curriculum Committee recommendation is not required.	
Instructors qualified to teach related instruction in **computation, communication, and/or human relations** will have the following acceptable subject area skills, education or training. Provide details	
Identify area(s) of related instruction	Clearly identify qualifications instructors must have to teach EACH area as identified above
☐ Computation	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in life support system related design and operations with the ability to: - Operate tools used for life support system construction and apply dimensional and spatial computation to common construction materials. - Understand and explain energy in pumping systems and how to calculate pressure head, total dynamic head, and friction loss. - Convert and calculate common volumetric measurements.

	• Convert and calculate common fluid dynamic measurements and values such as flow rate and turnover rates. • Calculate total available nitrogen (TAN) in an aquatic system. • Size and select appropriate biological filter parameters by calculating the surface area to volume for a given biological load. • Understand, interpret and explain the use of life support design tools such as schematics, isometrics, layouts, elevations, and P&IDs. • Size and select appropriate plumbing parts and fitting for life support installation.
☐ Communication	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in life support system design and operations with the ability to: • Understand and explain the safe use of life support equipment and related tools through proper communication and techniques • Identify common and select sources of information and supplies used within the life support industry • Give examples and explain record keeping and data collection techniques/tools used in life support systems.
☐ Human Relations	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in life support system design and operations with the ability to: • Establish the framework for team dynamics in group projects emphasizing life support system safety, communication and role responsibility. • Facilitate and manage life support operator teams.

Related Instruction for CTE Courses

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

General Information			
Department:	Aquarium Science	Submitter:	Chris Spaulding
Prefix and Course Number:	AQS 252	Submitter Phone and Email:	541-867-8678 Chris.spaulding@occc.cc.or.us
Credit	4	Course Title:	Exhibits and Interpretation

Details of Related Instruction guidelines for identifying related instruction

Identify the number of hours and the course activities in the areas of:

1) computation, 2) communication and 3) human relations.

Please be as specific as possible about the nature of the activities and instruction

A result of the NWCCU report is that related instruction must be identified within a course outcome.

Computation	Hours of instruction (include study and/or practice in and out of the classroom, 30 hours per credit)	0 hours
Course Outcome: Copy from the CCOG the outcome(s) which is associated with computation.		
Content (Activities, Skills, Concepts, etc.): provide details or specifics		

Communication	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	24 hours
Course Outcome: Copy from the CCOG the outcome(s) which is associated with communication.		

- Serve as a contributing member of an exhibit planning team, supporting the process of creating an exhibit and the roles of others on the team.
- Apply the principles of interpretation to the programs that husbandry staff are frequently asked to perform.
- Write effective interpretive material for exhibits, newsletters, and brochures.
- Describe what makes an effective exhibit, and evaluate exhibits and interpretation using industry standard criteria.
- Apply industry related information resources to the design and development of aquarium exhibits and interpretation.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Participation in classroom activities and discussions that utilize exhibit development tools and techniques.
- Team term project communicating information resources and tools for the development and design of a theoretical aquarium exhibit which includes the creation of a three dimensional

scale model of the proposed exhibit concept.
- Delivery of a public oral interpretive presentation on an exhibit topic related to the term project.
- Team dynamics including the roles and responsibilities of the exhibit design and development team.
- Role of animal husbandry staff in exhibit design teams.
- Development of concepts, themes, messages, objectives, narratives and evaluations for exhibits and interpretive programs.
- Exploration of learning styles and special needs in formal and informal education settings within public aquariums, zoos, nature centers and museums.
- Principles and techniques of connecting an audience with exhibits through motivation, provocation, interaction and interpretive programming.
- Communicate, coordinate and work as an effective member of an exhibit design team.
- Develop a concept statement for an aquarium exhibit idea.
- Create a component script and narrative for a proposed aquarium exhibit.
- Identify ways to reach diverse audiences with various learning styles, preferences and needs.
- Generate and deliver an interpretive outline for an aquarium exhibit to a public audience.
- Use of facts, interactivity, objects, voice and body language as techniques in delivering interpretation.
- Participate in exhibit planning meetings and record minutes.
- Develop tools for evaluating aquarium exhibits and communicating results.

Human Relations	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	24 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with human relations.

- Serve as a contributing member of an exhibit planning team, supporting the process of creating an exhibit and the roles of others on the team.
- Apply the principles of interpretation to the programs that husbandry staff are frequently asked to perform.
- Write effective interpretive material for exhibits, newsletters, and brochures.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Participation in classroom activities and discussions that utilize exhibit development tools and techniques.
- Team term project utilizing information resources and tools for the development and design of a theoretical aquarium exhibit which includes the creation of a three dimensional scale model of the proposed exhibit concept.
- Exploration of team dynamics including the roles and responsibilities of the exhibit design and development team.
- Role of animal husbandry staff in the exhibit and interpretation design and development process within exhibit design teams.
- Exploration of learning styles and special needs in formal and informal education settings within public aquariums, zoos, nature centers and museums.
- Principles and techniques of connecting an audience with exhibits through motivation, provocation, interaction and interpretive programming.
- Working with members of a team to accomplish a common goal from distinct individual roles.
- Meeting special needs and requirements for diverse audiences.
- Communicate, coordinate and work as an effective member of an exhibit design team.

- Identify ways to reach diverse audiences with various learning styles, preferences and needs.
- Generate and deliver an interpretive outline for an aquarium exhibit to a public audience.
- Use of facts, interactivity, objects, voice and body language as techniques in delivering interpretation.
- Participate in exhibit planning meetings and record minutes.

This request will remain in pending status until the hard copy, with appropriate signatures, is received by the curriculum office. Missing Information may cause the request to be returned.

After submitting this form, a confirmation and signature page will be sent to DC – 4th floor.

Instructor Qualifications	
This section is to be reviewed and approved by the Vice President of Academic and Student Affairs. Curriculum Committee recommendation is not required.	
Instructors qualified to teach related instruction in **computation, communication, and/or human relations** will have the following acceptable subject area skills, education or training. Provide details	
Identify area(s) of related instruction	Clearly identify qualifications instructors must have to teach EACH area as identified above
☐ Computation	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in exhibit design and interpretive program development with the ability to: - Understand and explain the cost of exhibit design related to the selection of components and materials commonly used. - Develop and explain budgets for exhibit projects and interpretive programs.
☐ Communication	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in exhibit design and interpretive program development with the ability to: - Establish and facilitate effective exhibit development and project teams - Explain the use and development of tools, concepts, themes and messaging in exhibits and interpretation for audience communication. - Understand and explain interpretive techniques used in exhibits - Set-up and explain how to effectively utilize team meetings.
☐ Human Relations	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in exhibit design and interpretive program development with the ability to: - Establish and facilitate effective exhibit development and project teams using project management and goal delivery tools. - Understand and explain the roles and expectations for effective project management and teams. - Understand and articulate the needs and learning styles of diverse audiences and the effective ways of reaching them through exhibits and interpretation techniques. - Explain and deliver ways to inspire and provoke visitors through exhibits and interpretation.

Related Instruction for CTE Courses

Save this document as the course prefix and number

Send completed form electronically to curriculum@pcc.edu

General Information

Department:	Aquarium Science	Submitter:	Chris Spaulding
Prefix and Course Number:	AQS 270	Submitter Phone and Email:	541-867-8678 Chris.spaulding@occc.cc.or.us
Credit	4	Course Title:	Fish and Invertebrate Health Management

Details of Related Instruction guidelines for identifying related instruction

Identify the number of hours and the course activities in the areas of:

1) computation, 2) communication and 3) human relations.

Please be as specific as possible about the nature of the activities and instruction

A result of the NWCCU report is that related instruction must be identified within a course outcome.

Computation	Hours of instruction (include study and/or practice in and out of the classroom, 30 hours per credit)	12 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with computation.

- Demonstrate proper use and maintenance of laboratory instrumentation.
- Formulate a health management plan based upon the results of diagnostic testing and professional consultation.
- Perform common treatment methodologies.

Content (Activities, Skills, Concepts, etc.): provide details or specifics

- Calculate the proper dose for treatment and disease management for aquarium species within the following:
    o Waterborne treatments
    o Oral treatment strategies
    o Injectable treatments
- Calculate the proper dose for sedation and euthanasia of common fish and invertebrate species.
- Measure and interpret common diagnostic laboratory findings and water quality results to identify the probable cause(s) of a fish or invertebrate health problem.
- Calculate system volumes and common drug dosages and durations for commonly used drugs and chemicals.

Communication	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	8 hours

Course Outcome: Copy from the CCOG the outcome(s) which is associated with communication.

- Describe the common infectious and non-infectious diseases associated with captive aquarium fish.
- Formulate a health management plan based upon the results of diagnostic testing and professional consultation.

Content (Activities, Skills, Concepts, etc.): provide details or specifics
- Term project utilizing written information and resources to develop a biosecurity plan for a selected animal holding facility.   - Case–based problem solving activities with partners that utilize skills and knowledge to identify health and animal holding system problems and develop treatment and management strategies.   - Writing assignments that utilize the knowledge and skills of fish and invertebrate health management to communicate common diseases, management and husbandry practices to professional colleagues.   - Discussion of merging issues on fish and invertebrate welfare and health management   - Pain perception and assessment on fish and invertebrates   - Assessment of fish and invertebrate welfare   - How sensory stimuli affect fish and invertebrate health   - Working as a member of a health management team.   - Read and interpret common diagnostic laboratory findings and water quality results to identify the probable cause(s) of a fish or invertebrate health problem.   - Consultation with professional veterinarians for determination of appropriate responses to animal health issues.   - Develop a treatment and management protocol based upon facility/system history, animal behavior, diagnostic findings, water quality results and veterinary consultation.   - Communicate and coordinate the development of a biosecurity plan with other members of the project team.   - Work as a member of a team to develop preventive health management strategies and a response to a disease outbreak.

Human Relations	Hours of instruction (include study and/or practice in and out of the classroom 30 hours per credit)	0 hours
Course Outcome: Copy from the CCOG the outcome(s) which is associated with human relations.		
Content (Activities, Skills, Concepts, etc.): provide details or specifics		

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Instructor Qualifications	
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Instructors qualified to teach related instruction in **computation, communication, and/or human relations** will have the following acceptable subject area skills, education or training. Provide details	
Identify area(s) of related instruction	Clearly identify qualifications instructors must have to teach EACH area as identified above
☐ Computation	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in

	aquatic animal health management with the ability to:
	• Calculate treatment dosages for medications administered for common fish and invertebrate ailments. • Convert common units associated with medical dosages for common fish and invertebrate diseases. • Calculate system water volumes for various aquarium dimensions. • Calibrate and use common water quality laboratory equipment for testing water parameters in aquariums.
☐ Communication	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in aquatic animal health management with the ability to: • Diagnose common fish disease and ailments and administer proper treatment regimes. • Understand and develop animal health management plans for aquatic species. • Develop and administer biosecurity plan for aquatic animal care facilities. • Manage and consult on issues related to animal health care units and their operations. • Integrate common and standard animal health care practices within the aquatic animal care industry to teams administering husbandry. • Develop and deliver proper record keeping and data collection techniques for animal health management.
☐ Human Relations	B.S. Life Science and five years experience in the aquarium science industry. Demonstrated background, academic knowledge and/or work-related experience in aquatic animal health management with the ability to: • Understand and explain the interfaces between an aquatic animal care team with regulatory agencies, consulting veterinarians and external animal welfare groups. • Associate animal health management techniques with the safety needs and requirements of animal care professionals • Facilitate team dynamics and communication within an aquatic animal care team with regard to animal health issues.

Portland Community College

Arts and Letters General Education/Discipline Studies List Request Form

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

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

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

2. Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.
   If you need to revise your course outcomes, you must complete a Course Revision form.

3. Verify Course Transfer Status using the General Education Transferability Status form.
   http://www.pcc.edu/resources/academic/eac/curriculum/resources/forms/GenEdTransferability.doc

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

5. Be an LDC course that is eligible for the AAOT Discipline Studies List.
   Check with the Curriculum Office if you have questions about AAOT eligibility.

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

6. Complete the contact information:

	Name	E-mail Address
Person Submitting This Request	Matthew Stockton	mstockto@pcc.edu
SAC Chair	Name	E-mail Address
	Matthew Stockton	mstockto@pcc.edu
SAC Admin Liaison	Name	E-mail Address
	Loretta Goldy	lgoldy@pcc.edu

7. Complete the following Course Information:

Course Prefix and Number:	212	Course Title:	Introduction to Philosophy of Mind
Course Credits:	4	Gen Ed Category:	Arts and Letters

Save this document as the course prefix and number.

Send completed form electronically to curriculum@pcc.edu

Course Prefix and Number:	PHL 212	Course Title:	Introduction to Philosophy of Mind

Course Description:	Introduces historical and contemporary thought in the philosophy of mind and considers traditional philosophical questions about the nature of the human person in the light of recent research in the cognitive sciences. Investigates pertinent philosophical and related texts, and may involve museum and research facility field trips, the informal replication of experiments demonstrating interesting aspects of conscious experience, and the utilization of pertinent online, film, and other contemporary media accounts. Explores provocative texts from the literature of philosophy of mind, such as discussions of brains in vats, zombies, the plight of color-blind neuroscientists, and what it's like to be a bat.

Course Outcomes:	• Read and critically assess important writings in the philosophy of mind and related disciplines, in order to understand the variety of historical and contemporary interpretations of the nature of mind. • Recognize and reflect on major issues pertaining to the relationship of thinking and the brain, in order to better participate in contemporary discussions of the nature of the human person in popular and academic literature. • Become familiar with and utilize concepts and language for discussing the nature of mind in the light of contemporary neuroscience, in order to better communicate an understanding of human activity in the context of current culture. • Reflect on the relationship of philosophy of mind to views in ethics, aesthetics and religion, in order to reflect on the importance of understanding the mind as well as other fundamental life concerns.

8. Address PCC's General Education Philosophy Statement:

The faculty of Portland Community College affirms that a prime mission of the college is to aid in the development of educated citizens. Ideally, such citizens possess:
  A. understanding of their culture and how it relates to other cultures
  B. appreciation of history both from a global perspective and from a personal perspective, including an awareness of the role played by gender and by various cultures
  C. understanding of themselves and their natural and/or technological environments
  D. ability to reason qualitatively and/or quantitatively
  E. ability to conceptually organize experience and discern its meaning
  F. aesthetic and artistic values
  G. understanding of the ethical and social requirements of responsible citizenship
Such endeavors are a lifelong undertaking. The General Education component of the associate degree programs represent a major part of the college's commitment to that process.

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

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

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

B. Appreciation of history both from a global perspective and from a personal perspective, including an awareness of the role played by gender and by various cultures.	

C. Understanding of themselves and/or their natural and technological environments.	Studying the mind as a product of the brain invites numerous questions involving artificial intelligence, moral agency, self, and free will. Attempts to explain consciousness through reverse engineering are explored as well as the social and personal consequences of doing so. Through these efforts, the philosophy of mind facilitates a personal reflection on our relationship to the natural and technological environments which make such reflection possible.

D. Ability to reason qualitatively and/or quantitatively.	The study of philosophy of mind addresses the ways in which we subjectively experience the world by incorporating an empirical basis of neurological understanding to complement the philosophical constructs we use to assess the validity of such experiences. Without questioning and evaluating the experience of consciousness that affords us the opportunity to reason both qualitatively and quantitatively, we run the risk of reasoning poorly.

E. Ability to conceptually organize experience and discern its meaning.	As a body of thought, the philosophy of mind confronts and attempts to explain how we experience as well as how we derive meaning from our experiences. Neuroscience has provided answers to many of the questions that have traditionally vexed philosophers. However, the topic still requires philosophical inquiry and conceptualization. Philosophy of mind properly lays out the spectrum of interpreting and affecting consciousness from the psychiatric to the psychological to the philosophical.

F. Aesthetic and artistic values.	

G. Understanding of the ethical and social requirements of responsible citizenship.	The underlying premise of moral agency is that individual humans possess a capacity for free will. Without this capacity, notions of personal responsibility are nullified. The philosophy of mind confronts these questions directly and attempts to help students reconsider and conceptualize what it means to fulfill the ethical and social requirements of responsible citizenship in light of the scientific body of evidence that undercuts many of these traditional assumptions.

Arts and Letters

Outcomes:

As a result of taking General Education Arts & Letters courses, a student should be able to:
- Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life; and
- Critically analyze values and ethics within a range of human experience and expression to engage more fully in local and global issues.

Criteria:

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

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*	• Read and critically assess important writings in the philosophy of mind and related disciplines, in order to understand the variety of historical and contemporary interpretations of the nature of mind. • Recognize and reflect on major issues pertaining to the relationship of thinking and the brain, in order to better participate in contemporary discussions of the nature of the human person in popular and academic literature. • Become familiar with and utilize concepts and language for discussing the nature of mind in the light of contemporary neuroscience, in order to better communicate an understanding of human activity in the context of current culture. • Reflect on the relationship of philosophy of mind to views in ethics, aesthetics and religion, in order to reflect on the importance of understanding the mind as well as other fundamental life concerns.

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

How does the course enable a student to "interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life"?**	By exposing students to important philosophical texts and concepts that put current scientific understandings in perspective, they are better equipped to understand the nature of their experience in the world as well as what the experience of others might also be like. These insights give birth to the empathy, accountability, and opportunity necessary to enrich the quality of life.

How does the course enable a student to "critically	The study of philosophy is not so much the study of a body of knowledge as much as it is the activity of intimately wrestling with the very questions that

analyze values and ethics within a range of human experience and expression to engage more fully in local and global issues"?**	gave rise to such ideas. It is through this process that students develop the acumen and skills necessary to fully understand the nature of such questions such that they may be answered personally as a means for enriching their own efforts in life. The philosophy of mind exposes students to concepts, thought experiments, and scientific data that enables students to investigate and develop their values and ethics such that they live more authentic and accountable lives.
***Note:** Between your answers to the two outcomes questions above, you need to address all of the first four criteria as well as at least one of the criteria listed in the second set of three.	