Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: Sciences

Submitter

First Name: Jennifer Last Name: Bown Phone: 3348 Email: jenb

Course Prefix and Number: BI - 165CL

Credits: 4

Contact hours

Lecture (# of hours): 33 Lec/lab (# of hours): Lab (# of hours): 33 Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Natural History of the Oregon Coast with Lab

Course Description:

Explores the natural processes that form our Northwest coastal environment: geologic development, shoreline processes, oceanography, and environmental hazards. Topics include the ecology of marine mammals and birds, estuaries, tide pools, sand dunes and coastal forests. Lab included with field trips and lab activities.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No
Is general education certification being sought at this time?
Yes
Check which General Education requirement:
✓ Science & Computer Science
Is this course part of an AAS or related certificate of completion?
No
Are there prerequisites to this course?
No
Are there corequisites to this course?
No
Are there any requirements or recommendations for students taken this course?
No
Are there similar courses existing in other programs or disciplines at CCC?
No
Will this class use library resources?
Yes
Have you talked with a librarian regarding that impact?
No
Is there any other potential impact on another department?
No
Does this course belong on the Related Instruction list?
No
GRADING METHOD:
A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

√ Not every year

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

- 1. evaluate existing scientific explanations for coastal processes in order to develop evidence-based decisions and apply those to environmental policies and laws that affect coastal development; (SC1) (SC2) (SC3)
- 2. describe the geologic theories that have influenced the ocean and shaped our coastlines; (SC1, SC2)
- 3. identify the sources and effects of coastal environmental hazards including earthquakes and tsunamis; (SC1) (SC2) (SC3)
- 4. summarize the aspects of oceanography that pertain to coastal regions;(SC1) (SC2) (SC3)
- 5. recognize estuaries and describe their geologic origins and both abiotic and biotic features; (SC1) (SC2) (SC3)
- 6. list the general features of coastal beaches, coastal forests and sand dunes and describe the general history of their disturbances; (SC1) (SC2) (SC3)
- 7. identify the variety of intertidal ecosystems, their inhabitants and recognize the ecological factors influencing them; (SC1) (SC2) (SC3)
- 8. describe the strategies, distribution, and adaptations of marine mammals and marine birds to a life of living in a marine habitat; (SC1) (SC2) (SC3)
- 9. collect and analyze field data to understand the relationships between geology and biology of coastal ecosystems;(SC1, SC2)
- 10. create scientifically accurate field journals, using correct taxonomic language, to document field observations, hypothesis, and experiments. (SC1, SC2)

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COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the
 outcome to be completely addressed. Students who successfully complete all of the required courses are
 likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as
 part of the class, but the class is not a primary means for attaining the outcome and assessment for general
 education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

- P 1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.
 - 2. Locate, evaluate, and ethically utilize information to communicate effectively.
 - 3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

- 1. Engage in ethical communication processes that accomplish goals.
- 2. Respond to the needs of diverse audiences and contexts.
- 3. Build and manage relationships.

MA: Mathematics Outcomes:

- **P** 1. Use appropriate mathematics to solve problems.
- **P** 2. Recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results.

AL: Arts and Letters Outcomes

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

SS: Social Science Outcomes

- 1. Apply analytical skills to social phenomena in order to understand human behavior.
- 2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

S 1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

- **S** 2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.
- **S** 3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

√ General Examination
√ Projects

√ Writing Assignments

√ Thesis/Research Project

√ Journal Writing

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Major Topic Outline:

- 1. Coastal Structure: Plate tectonics, coastal morphology and geologic processes, historical geology of the Northwest Coast and Coast Range.
- 2. Environmental geology and hazards of the coast.
- Oceanography: currents, stratification, upwelling, biologic structure of marine water.
- 4. Estuaries: structure, dynamics, ecological importance and degradation, environmental problems: lake eutrophication, siltation, pollution, land development.
- 5. Intertidal and tide pool Ecology: structure and zonation, ecological adaptations, dominant plant and animal communities.
- 6. Coastal Dunes: dune structure and succession, forest types, structure and succession.
- 7. Forest Ecology: structure and kinds, forest nutrients and cycling, bryophytes, symbiotic relationships.
- 8. Coastal Marine mammals: whales, Pinnipeds, natural history, adaptations and current status.
- 9. Coastal birds: common birds, seasonal variation, nesting areas, sea bird community structure, nesting ecology, migration patterns, special adaptations, conservation status, habitat requirements.

Does the content of this class relate to job skills in any of the following areas:

Increased energy efficiency
 Produce renewable energy
 Prevent environmental degradation
 Clean up natural environment
 Supports green services

Percent of course: 0%

Section #2 Course Transferability

Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state currently requires us to certify that at least one OUS school will accept

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a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these questions.

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

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

Which OUS schools will the course transfer to? (Check all that apply)

√ PSU (Portland State University)

√ OSU (Oregon State University) ✓ UO (University of Oregon)

Identify comparable course(s) at OUS school(s)

BI-LDT, BI-1ALT

How does it transfer? (Check all that apply)

√ general elective

:

Provide evidence of transferability: (minimum one, more preferred)

√ Other. Please explain.

Online course equivalency tables

First term to be offered:

Next available term after approval

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