

Clackamas Community College
Online Course/Outline Submission System

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Section #1 General Course Information

Department: Sciences

Submitter

First Name: Jennifer

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Course Prefix and Number: BI - 112

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: General Biology for Health Sciences

Course Description:

A one-term preparatory course that introduces the Health Occupations student to the scientific method, molecular and cellular biology, principles of inheritance, natural selection, tissues and organ systems. Topics and skills covered prepare students to enter BI-231, Anatomy & Physiology and BI-234, Introductory Microbiology.

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?

Yes

Recommendations: Pass MTH-060 or placement in MTH-065 or MTH-098; pass RD-090 or placement in RD-115; pass WR-095 or placement in WR-121

Requirements: None

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?

- Summer
- Fall
- Winter
- Spring

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. demonstrate the ability to comprehend and communicate basic scientific principles and concepts important to an understanding major topics relating to health sciences; (SC1) (SC2)
 2. gather research materials utilizing scientific journals and appropriate internet sites to address cellular processes, specific body systems and disease processes affecting those; (SC1)
 3. apply the scientific method by designing and conducting experiments, analyzing data, and writing formal scientific reports discussing the process; (SC2)
 4. comprehend topics related to cellular biology in order to explore the cell types, structures, processes and their biochemical basis; (SC1)
 5. demonstrate the integration of tissue types into organs and organ systems and apply the integration to the different homeostatic mechanisms in the human body. (SC1)
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**AAOT/ASOT GENERAL EDUCATION OUTCOMES
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**
- ✓ **Writing Assignments**
- ✓ **Thesis/Research Project**
- ✓ **Multiple Choice Test**
- ✓ **Criteria**

:

Major Topic Outline:

1. Characteristics of living organisms, scientific method, the metric system.
2. The chemical basis of life, water and life, pH and life.
3. Biochemical organization of cells.
4. Microscopy, cell structure and function.
5. Energy and the cell, how enzymes work, membrane structure and function.
6. Cellular respiration to include aerobic and anaerobic pathways.
7. Mitosis and meiosis.
8. Patterns of inheritance (Mendelian genetics).
9. DNA structure and replication, protein synthesis.
10. Concepts of animal structure & function and the integration of homeostatic mechanisms to maintain the organism.

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

- | | |
|--------------------------------------|-----------|
| 1. Increased energy efficiency | No |
| 2. Produce renewable energy | No |
| 3. Prevent environmental degradation | No |
| 4. Clean up natural environment | No |
| 5. Supports green services | No |

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 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)

- | | |
|--|--|
| <input checked="" type="checkbox"/> EOU (Eastern Oregon University) | <input checked="" type="checkbox"/> PSU (Portland State University) |
| <input checked="" type="checkbox"/> OIT (Oregon Institute of Technology) | <input checked="" type="checkbox"/> SOU (Southern Oregon University) |
| <input checked="" type="checkbox"/> OSU (Oregon State University) | <input checked="" type="checkbox"/> UO (University of Oregon) |
| <input checked="" type="checkbox"/> OSU-Cascade | <input checked="" type="checkbox"/> WOU (Western Oregon University) |

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

How does it transfer? (Check all that apply)

- general education or distribution requirement
- general elective
- other (provide details): Satisfies prerequisites for Nursing program

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

Other. Please explain.

[AAOT - transfer table in CCC Catalog](#)
[OSU, PSU and University of Oregon transfer tables](#)

First term to be offered:

Next available term after approval

:
