GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: ECOL 1 DIVISION: 10 ALSO LISTED AS:

TERM EFFECTIVE: Summer 2025 CURRICULUM APPROVAL DATE:06/10/2025

SHORT TITLE: CONS NATURAL RESOUR

LONG TITLE: Conservation of Natural Resources

Units	Number of Weeks	Type	Contact Hours/Week	Total Contact Hours
4	18	Lecture:	3	54
		Lab:	3	54
		Other:	0	0
		Total:	6	108

Out of Class Hrs:	108.00
Total Learning Hrs:	216.00

COURSE DESCRIPTION:

This course examines the fundamentals of ecology--the study of the relationships between organisms and their environment--with special emphasis on human effects on the environment. Topics include ecosystem dynamics, resources, pollution, population growth, and the clash between economic and political policy and the environment. High school-level reading and writing skills are strongly recommended.

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

02 - Lecture and/or discussion
03 - Lecture/Laboratory
04 - Laboratory/Studio/Activity
04B - Laboratory - LEH 0.75
05 - Hybrid
71 - Dist. Ed Internet Simultaneous
72 - Dist. Ed Internet Delayed
73 - Dist. Ed Internet Delayed LAB
73B - Dist. Ed Internet LAB-LEH 0.75

STUDENT LEARNING OUTCOMES:

By the end of this course, a student should:

1. Describe the ecological principles that link individuals at the population, community, landscape, and ecosystem levels.
2. Explain the energy and nutrient cycles within and between ecosystems, and describe how human activity can disrupt these cycles.
3. Describe plant and animal diversity and explain how their structure and function represent evolutionary adaptations in their respective environments.
4. Investigate and analyze the human impact on disrupting natural ecosystem function, and evaluate the efficacy of the democratic process on this issue from a

social and economic perspective.

COURSE OBJECTIVES:

By the end of this course, a student should:

1. Describe the major steps that have occurred in Earth's chemical and biological evolution, including scientific evidence that these steps have occurred.
2. Compare and contrast the different types of biodiversity.
3. Describe the various properties of aquatic ecosystems.
4. Explain the factors that can affect species diversity in both terrestrial and aquatic ecosystems.
5. Explain how populations can change and what causes the change.
6. Describe the layers and composition of the Earth's interior and relate this to the processes that shape the Earth's landscape.
7. List the unique properties of water and why they are important to life, and explain what gives water those properties.
8. Identify the various types of water and air pollution, and give examples of each.
9. Describe the various factors affecting the distribution and abundance of living organisms on Earth.
10. Evaluate how humans influence air and water quality, climate, and biodiversity, and propose strategies for lessening human impacts on the environment.
11. Explain the roles of science, economics, and social policies in addressing environmental problems.
12. Develop problem-solving skills through performance of laboratory exercises and preparation of laboratory reports.

COURSE CONTENT:

Curriculum Approval Date:06/10/2025

LECTURE CONTENT:

3 LEC HOURS

Environmental Issues, Their Causes, and Sustainability

Objectives:

1. Explain the relationship between economic development and economic growth.
2. Define "environmentally sustainable development" and relate it to natural capital.
3. Explain the relationship between poverty and environmental degradation.
4. Define "environmental worldview" and give two opposing examples.
5. List the major environmental problems and their basic causes.
6. Define "environmental impact" and explain how it can illustrated as an ecological footprint.
7. Explain the roles science, economics, and social policies in addressing environmental problems.

Assignments: read text, answer homework questions.

3 LEC HOURS

Environmental History

Objectives:

1. Describe hunter-gatherer societies and analyze their environmental impact.
2. Compare and contrast shifting and permanent agriculture in terms of their social and environmental impact.
3. Describe the Industrial Revolution and explain its social and environmental impacts.
4. Explain the social and cultural impacts of the Information Revolution.
5. Describe each era of U.S. environmental history and explain how society's attitude towards the environment has changed.
6. Define environmental racism. Impact of environmental racism on communities.

Assignments: read text, answer homework questions, written assignment on cultural impact on native communities.

3 LEC HOURS

Ecosystems

Objectives:

1. Define ecology and describe and explain the levels of biological organization that are the focus of ecology.
2. Compare and contrast lithosphere, hydrosphere, atmosphere and biosphere.
3. Explain how the sun, gravity, and nutrient cycles sustain life on Earth.
4. Explain why matter cycles within the biosphere and energy flow through it.
5. Explain what a biogeochemical cycle is and give examples.
6. Compare and contrast biotic and abiotic environmental components.
7. Define "biome" and "aquatic life zone" and explain what abiotic factors have a large effect on them.
8. Explain the Law of Tolerance and the Limiting Factor Principle.
9. Explain the difference between, and identify the different types of, producers and consumers.
10. Explain what food chains and food webs are.
11. Explain what a pyramid of energy is and how it produces pyramids of numbers and biomass.
12. Define net primary productivity and explain its importance.
13. Define and give examples of ecosystem services.
14. Explain how ecosystems achieve sustainability.

Assignments: read text, answer homework questions.

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Evolution and Biodiversity

Objectives:

1. Compare and contrast the types of biodiversity.

2. Explain the importance of biodiversity to humans.

3. Describe the major steps that have occurred in Earth's chemical and biological evolution including scientific evidence that these steps have occurred.

4. Explain the importance of genetic variation in biological evolution.

5. Compare and contrast the causes and effects of the four agents of microevolution.

6. Compare and contrast the 3 modes of natural selection.

7. Explain the process of speciation.

8. Define "adaptation" and give examples.

9. Define "ecological niche" and distinguish between fundamental and realized niche and between broad and narrow niches.

10. Explain the importance of co-evolution in determining a niche.

11. Explain the relationship between speciation, extinction, and biodiversity and the effect humans are having on this relationship.

Assignments: read text, answer homework questions.

3 LEC HOURS

Biogeography

Objectives:

1. Define "weather" and describe the effects of warm and cold fronts, high and low pressure air masses.

2. Define "climate."

3. Explain what determines the patterns of global air circulation and how this movement affects local climates.

4. Explain what causes ocean currents and how these currents affect local climates.

5. Define "microclimate" and give examples.

6. Define "greenhouse effect" and explain its significance.

7. Explain how climate, latitude, and altitude affect the distribution of life on earth.

8. List the major biomes, describe their physical characteristics, and explain the adaptations of plants and animals typical to each biome.

9. Define "ecotone."

Assignments: read text, answer homework questions.

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Aquatic Ecology

Objectives:

1. Describe the main factors affecting where organisms are found in aquatic ecosystems.

2. Describe the ecosystem and economic services provided by marine systems.

3. List the major saltwater life zones; describe the characteristics, ecological significance, environmental and economic problems for each.

4. List the major types of coastal and inland wetlands; describe the characteristics, ecological significance and environmental problems of each.

5. Compare and contrast the 4 zones of a lake.

6. Explain the differences between oligotrophic and eutrophic lakes.

7. Explain the significance of stratification and turnover in lakes.

8. Define "watershed" and explain its significance in protecting freshwater systems.

9. Compare and contrast the three zones of a river system.

Assignments: read text, answer homework questions.

6 LEC HOURS

Community Ecology

Objectives:

1. List and describe the 4 characteristics of community structure.

2. Explain the factors that can affect species diversity in both terrestrial and aquatic ecosystems.

3. Explain the Theory of Island Biogeography and use it to predict relative species diversity of sample islands.

4. Compare and contrast native, nonnative, indicator, and keystone species; give examples of each.

5. Explain the importance of inter-specific competition in determining community structure, including the Competitive Exclusion Principle; list strategies for reducing competition with examples.

6. Explain why predation is beneficial for prey species and give examples of co-evolutionary adaptations of predators and prey.

7. Explain the Red Queen Hypothesis.

8. Compare and contrast the three forms of symbiotic relations and give examples of each.

9. Explain the process of succession, including factors that affect how it occurs. Compare and contrast primary and secondary succession, giving examples of each.

10. Explain the Intermediate Disturbance Hypothesis and how it affects species diversity.

11. Explain the roles of inertia, constancy, and resilience in ecological stability. Give examples of each.

12. Explain the Precautionary Principle.

Assignments: read text, answer homework questions.

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Population Dynamics

Objectives:

1. Explain how populations can change and what causes the change.

2. List and define the four variables that determine population dynamics and write them in an equation that expresses their relationships.

3. Define "biotic potential" and list factors that affect it.

4. Explain the relationship between biotic potential and "intrinsic rate of increase."

5. Draw a growth curve demonstrating exponential growth.

6. Define "environmental resistance" and list factors that cause it.

7. Define "carrying capacity."

8. Draw a growth curve demonstrating logistic growth and explain the factors affecting the curve's shape.

9. Draw a logistic growth curve demonstrating reproductive time lag and overshoot. Explain the potential outcomes of overshoot.

10. Compare and contrast r-selected and K-selected species, explaining the advantages and disadvantages of both strategies. Give examples and draw typical survivorship curves.

11. Discuss the role of predation in population control.

12. List seven ways humans have modified natural ecosystems and list three principles that can move human societies towards sustainability.

Assignments: read text, answer homework questions.

3 LEC HOURS

Geology

Objectives:

1. Describe the layers and composition of the Earth's interior and relate this to the processes (including plate tectonics) that shape the Earth's landscape.

2. Describe the rock cycle and explain the processes that drive it.

3. Define "soil," explain how it is formed and how it is arranged. Compare and contrast the profiles of five important soil types.

4. Explain the roles of texture, porosity, and pH in determining the suitability of soil for agriculture.

5. Describe the problems of soil erosion and desertification; explain their causes and the environmental problems associated with them. Give examples.

6. Describe the problems of salinization and waterlogging; explain their causes and how they might be controlled.

7. Explain how agriculture can either despoil or conserve soil. Compare and contrast different farming methods with respect to their effect on soil and surrounding ecosystems.

Assignments: read text, answer homework questions.

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Water Resources

Objectives:

1. List the unique properties of water and why they are important to life, and explain what gives water those properties.

2. Describe sources of useable water; define "runoff," "reliable runoff," and "groundwater."

3. List four causes of water scarcity.

4. List five ways to increase local water supplies, giving the advantages and disadvantages for each. Include a discussion of impacts on international relations.

5. Assess usage of groundwater in terms of sustainability and environmental impacts.

6. Describe methods to reduce water losses through irrigation, industry, and home use.

7. Describe human activities that contribute to flooding and strategies employed to minimize flooding. Assess the strategies for long-term effectiveness.

8. Summarize the steps necessary for humans to use water sustainably.

Assignments: read text, answer homework questions.

3 LEC HOURS

Water Pollution

Objectives:

1. List nine types of water pollution and give examples of each. Describe common strategies for determining the presence and concentration of pollutants.

2. Compare and contrast point and non-point pollution.

3. Use an oxygen sag curve to explain what happens to dissolved oxygen levels in streams below points of pollution by oxygen demanding wastes.

4. Describe methods of preventing and cleaning up cultural eutrophication.

5. List major pollutants of groundwater and explain why cleanup of groundwater is so difficult.

6. Describe strategies for preventing groundwater pollution.

7. Describe sources of ocean water pollution and discuss methods of prevention.

8. Compare and contrast primary, secondary, and tertiary sewage treatment and discuss natural alternatives to traditional sewage treatment plants.

9. Discuss strategies for preventing pollution and assess their impacts in social and economic terms.

Assignments: read text, answer homework questions.

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Air and Air Pollution

Objectives:

1. Describe the structure of the atmosphere including troposphere, stratosphere, mesosphere, and the boundaries between each set of layers.

2. Summarize ways in which humans disrupt Earth's major gaseous nutrient cycles.

3. Compare and contrast the following: primary and secondary pollutants (include eight major classes primary pollutants); stationary and mobile sources; photochemical and industrial smog (include a description of how smog is formed).

4. Describe the geographic and climatic conditions that result in inversion layers and persistent concentrated smog.

5. Describe the causes and consequences of acid deposition, and discuss strategies for prevention.

6. List the four most dangerous indoor air pollutants, the potential health effects of each, and strategies for dealing with each.

7. Describe how air pollution affects human health, plants, aquatic life, and materials.

8. Discuss cleanup and prevention strategies to reduce outdoor air pollution from stationary and mobile sources.

9. Discuss cleanup and prevention strategies to reduce indoor pollution.

Assignments: read text, answer homework questions.

3 LEC HOURS

Climate Change

Objectives:

1. Compare and contrast greenhouse effect and global warming.

2. Describe human activities that contribute greenhouse gases to the atmosphere.

3. Describe the general trend of mean global temperature since 1860 and state the consensus scientific view of the relationship between this trend and human activities.

4. Evaluate the accuracy of projections of major climate models regarding changes in mean surface temperature and average sea level. Summarize the projections of possible effects of global warming on food production,

water supplies, forests, biodiversity, sea level, weather extremes, human health and environmental refugees.

5. List seven strategies, both prevention and cleanup, for slowing potential global warming.

6. Describe the origin of stratospheric ozone and its role in protecting life on Earth.

7. Describe the consensus scientific view of the relationship between CFCs and changes in stratospheric ozone.

8. Explain the consequences of ozone depletion and describe three ways of slowing it.

9. Explain the significance of a critically thinking citizenry to the democratic process.

Assignments: read text, answer homework questions

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Sustaining Wild Species

Objectives:

1. Describe the economic, medical, scientific, ecological, and aesthetic, recreational, and ethical significance of wild species.

2. Compare and contrast local extinction, ecological extinction, and biological extinction, and explain what characteristics make species prone to extinction.

3. List three root causes of extinction and eight human activities that directly increase extinction rates.

4. Explain how bioinformatics is being used to protect wild species. 5. Assess the advantages and disadvantages of using wildlife refuges, gene banks, botanical gardens, and zoos to protect wildlife.

6. Describe how wildlife populations can be managed by manipulating the successional stage of the habitat and by sport hunting; and evaluate whose interests are most influential in determining management priorities.

7. Describe freshwater and marine fishery management and suggest strategies for improvement.

Assignments: read text, answer homework questions

3 LEC HOURS

Sustaining Terrestrial Biodiversity

Objectives:

1. List the five types of public lands in the U.S. and explain the mission and principles of management for each.

2. Explain why forests are commercially and ecologically important.

3. Compare and contrast old-growth forests, second-growth forests, and tree farms.

4. Explain the factors underlying tropical deforestation and list six human activities that actually destroy the tropical forests.

5. Explain the fuelwood crisis and its consequences.

6. Compare and contrast even-aged and uneven-aged management and the types of tree harvesting each uses.

7. Describe the threats to forests from fires, pathogens, and air pollution, and strategies for dealing with each threat.

8. Compare and contrast industrial forestry, "New Forestry," and sustainable forestry.

9. Describe strategies to move towards sustainable forest management and to reduce demand for wood products.

10. Describe strategies to reduce tropical deforestation and the fuelwood crisis.

11. Compare and contrast whole ecosystem and species- by-species approaches to increasing sustainability.

Assignments: read text, answer homework questions

COURSE CONTENT (CONTINUED):

LECTURE CONTENT(CONTINUED):

3 LEC HOURS

Human Population

Objectives:

1. Write an equation to mathematically describe the relationship between birth rate, death rate, emigration rate, and immigration rate, and the rate of population change.

2. Compare and contrast replacement-level fertility and total fertility rate.

3. Describe factors that affect birth, fertility, and death rates.

4. Explain why infant mortality rate is a good indicator of quality of life.

5. Compare and contrast rates of population growth in developed and developing countries and explain the differences.

6. Using population age structure diagrams, explain how the age structure of a country creates population growth momentum.

7. Explain how immigration policy, family planning, economic rewards and penalties, and empowering women influence population size.

8. Describe the four stages of demographic transition and list social, biological, political, and economic issues that can be addressed to help developing countries

undergo a demographic transition. Explain factors that may limit the effectiveness of demographic transition in influencing population size.

9. Summarize what we have learned from decades of trying to influence human population growth.

2 LEC HOURS

Final Exam

COURSE CONTENT (CONTINUED):

LAB CONTENT:

3 LAB HOURS

Scientific Inquiry

Objectives:

1. Explain the scientific inquiry method.

2. Identify questions that can be answered through scientific inquiry and explain what characterizes a good question.

3. Identify usable hypotheses and explain what characterizes a good scientific hypothesis.

4. Define and give examples of dependent, independent, and standardized variables.

5. Identify the variables in an experiment.

6. Explain what control treatments are and why they are used.

7. Explain what replication is and why it is important.

Assignments: Complete lab report.

3 LAB HOURS

Field Trip: Chitactac Adams

Objectives:

1. Describe the types of resources used by the Chitactacs.

2. Explain environmental factors affecting the size and location of Chitactac villages.

3. Assess the ecological footprint of the Chitactacs and the environmental sustainability of their lifestyle.

4. Describe the impact settlers (immigrant communities) had on the environment and Native American practices.

Assignment: Complete lab report, and written assignment on cultural impact on native communities.

3 LAB HOURS

Term Project: Assessment of campus ecosystems- campus trail

Objectives:

1. Evaluate and compare the quality of information from a variety of sources.

2. Perform in depth analysis of the environmental, social, and economic impacts of a particular environmental issue.

3. Evaluate the efficiency and effectiveness of the democratic process in dealing with complex issues.

4. Create and deliver a presentation of findings and conclusions.

Assignments: perform literature research, produce presentation.

3 LAB HOURS

Field Trip: Tide Pools

Objectives:

1. Identify the physical characteristics that make tide pools unique habitats.

2. Describe adaptations of organisms for living in the tide pools.

3. Identify characteristic plants and animals of the tide pools.

Assignment: complete lab report.

3 LAB HOURS

Field Trip: Riparian Corridor

Objectives:

1. Identify the physical characteristics that make riparian corridors unique habitats.

2. Describe adaptations of organisms for living in a riparian corridor.

3. Identify typical plants and animals of a riparian corridor.

Assignments: complete lab report.

COURSE CONTENT (CONTINUED):

LAB CONTENT(CONTINUED):

3 LAB HOURS

Field Trip: Coastal Wetland

Objectives:

1. Identify the physical characteristics that make a coastal wetland a unique habitat.
2. Describe adaptations of organisms for living in a coastal wetland.
3. Identify typical plants and animals of a coastal wetland.

Assignments: complete lab report.

3 LAB HOURS

Term Project: Campus Service Learning- animal/plant survey of native and invasives

Objectives:

1. Evaluate and compare the quality of information from a variety of sources.
2. Perform in depth analysis of the environmental, social, and economic impacts of a particular local environmental issue impacting communities.
3. Evaluate the efficiency and effectiveness of the democratic process in dealing with complex issues.
4. Create and deliver a presentation of findings and conclusions.

Assignments: perform literature research, produce presentation.

3 LAB HOURS

Field Trip: Coastal Dunes

Objectives:

1. Identify the physical characteristics that make coastal dunes a unique habitat.
2. Describe adaptations of organisms for living in coastal dunes.
3. Explain the process of succession in coastal dune systems.
4. Identify typical plants and animals of the coastal dunes.

Assignments: complete lab report.

3 LAB HOURS

Field Trip: Redwood Forest

Objectives:

1. Identify the physical characteristics that make the redwood forest a unique habitat.
2. Describe adaptations of organisms for living in the redwood forest.
3. Explain the factors affecting the distribution of redwood forests.
4. Identify typical plants and animals of the redwood forest.

Assignments: complete lab report.

3 LAB HOURS

Video: Blue Gold: World Water Wars and/or Cadillac Desert

Objectives:

1. Describe the environmental and social costs of large scale water projects in the U.S. and abroad.
2. Describe strategies to avoid reliance on dam and aqueduct projects.

Assignments: complete lab report.

COURSE CONTENT (CONTINUED):

LAB CONTENT(CONTINUED):

3 LAB HOURS

Field Trip: Oak Woodland

Objectives:

1. Identify the physical characteristics that make the oak woodland a unique habitat.
2. Describe adaptations of organisms for living in the oak woodland.
3. Explain the factors affecting microclimates within the oak woodland.
4. Identify typical plants and animals of the oak woodland.

Assignments: complete lab report.

3 LAB HOURS

Term Project

Objectives:

1. Evaluate and compare the quality of information from a variety of sources.
2. Perform in depth analysis of the environmental, social, and economic impacts of a particular environmental issue.
3. Evaluate the efficiency and effectiveness of the democratic process in dealing with complex issues.
4. Create and deliver a presentation of findings and conclusions.

Assignments: perform literature, research, produce presentation.

3 LAB HOURS

Field Trip: Coastal Chaparral/Campus

Objectives:

1. Identify the physical characteristics that make the coastal chaparral a unique habitat.
2. Describe adaptations of organisms for living in the coastal chaparral.
3. Explain what is meant by "fire adapted" and give examples of adaptations to regular fires.
4. Identify typical plants and animals of the coastal chaparral.

Assignments: complete lab report.

3 LAB HOURS

Field Trip: Refuse Transfer Station and Landfill

Objectives:

1. Describe what happens to household refuse once it is collected.
2. Describe potential environmental impacts of current means of refuse disposal.
3. Describe strategies for reducing material being disposed of in landfills and assess the social and economic costs of their implementation.

Assignments: complete lab report.

3 LAB HOURS

Field Trip: Organic Farm

Objectives:

1. Explain how organic farming methods lessen the environmental impact of agriculture.
2. Compare and contrast: organic and commercial fertilizers; integrated pest management and pesticide application.

Assignments: complete lab report.

COURSE CONTENT (CONTINUED):

LAB CONTENT(CONTINUED):

6 LAB HOURS

Presentation of Term Projects

Objectives:

1. Evaluate and compare the quality of information from a variety of sources.

2. Perform in depth analysis of the environmental, social, and economic impacts of a particular environmental issue.

3. Evaluate the efficiency and effectiveness of the democratic process in dealing with complex issues.

4. Create and deliver a presentation of findings and conclusions.

Assignments: perform literature research, produce presentation

3 LAB HOURS

Presentation of Term Projects continued

METHODS OF INSTRUCTION:

Instructional methods will include lecture and lab with the use of A/V aids, group projects, campus 'outdoor classrooms' (arboretum, demonstration garden, pond-life and riparian corridor), field trips to representative ecosystems and human facilities.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours 30

Assignment Description

Term Projects: see Course Content for more information

Required Outside Hours 54

Assignment Description

Lecture Homework, Problem Sets

Required Outside Hours 24

Assignment Description

Lab Reports

METHODS OF EVALUATION:

Writing assignments
Evaluation Percent 50
Evaluation Description
40% - 60%
Written homework;
Lab reports;
Term papers

Problem-solving assignments
Evaluation Percent 15
Evaluation Description
10% - 20%
Homework problems;
Exams

Objective examinations
Evaluation Percent 35
Evaluation Description
30% - 40%
Multiple choice, free response exam questions

REPRESENTATIVE TEXTBOOKS:

Biology 2e, Clark, M, M. Douglas, J. Choi , OpenStax, 2024 or a comparable textbook/material.
ISBN: 13: 978-1-947172-52-4
Rationale: The last online text was published in 2018 and this online version was recently updated on July 10, 2024
12+ Grade Verified by: Microsoft
Ecology 1 Lab Manual (available on iLearn and the Gavilan bookstore)

RECOMMENDED MATERIALS:

Ecology , William Bowman; Sally Hacker, Sinauer Associates , 2023.
ISBN: 9780197614082, 0197614086
Rationale: This Ecology text is currently used in introductory Ecology courses in local 4-year institutions.
12+ Grade Verified by: Microsoft

The Habitable Planet: A Systems Approach to Environmental Science. (n.d.). Available at https://www.learner.org/courses/envsci/

Environmental Biology Matthew R. Fisher OpenStax; Kamala Dorsner; Alexandra Geddes; Tom Theis; and Jonathan Tomkin OPEN OREGON EDUCATIONAL RESOURCES
https://openoregon.pressbooks.pub/envirobiology/#main

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:
- GAV B2
- GAV B3

CSU GE:
- CSU B3
- CSU B4

IGETC:
- IGETC 5B
- IGETC 5C

CSU TRANSFER:
- Transferable CSU

UC TRANSFER:
- Transferable UC

SUPPLEMENTAL DATA:

Basic Skills: N
Classification: Y
Noncredit Category: Y
Cooperative Education:
Program Status: 1 Program Applicable
Special Class Status: N
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: E
Course Control Number: CCC000212222
Sports/Physical Education Course: N
Taxonomy of Program: 030200