Cerro Coso College

Course Outline of Record Report

05/01/2018

BIOLC105 : Concepts of Biology

General Information

Author(s):	-
Subject (CB01):	BIOL
Number (CB01):	C105
Course Title (CB02):	Concepts of Biology
Department:	Science
Proposal Start:	Summer 2017
TOP Code (CB03):	(0401.00) Biology, General
SAM Priority Code (CB09):	Non-occupational
Distance Education Approved:	Yes
Course Control Number (CB00):	CCC000355797
Curriculum Committee Approval Date:	03/04/2016
Board of Trustees Approval Date:	04/14/2016
External Review Approval Date:	04/29/2011
Course Description:	This is an introductory course in biological science with laboratory experience for non-majors. The course illustrates the principles of organization, cell structure and function, genetics, metabolism, organ systems, reproduction (plant and animal), ecology, evolution, and animal behavior. The course is not open to students with credit in BIOL C101.
Submission Rationale:	New Course

Faculty Requirements

Master Discipline Preferred:	• Biological Sciences
Alternate Master Discipline Preferred:	• Biological Sciences
Bachelors or Associates Discipline Preferred:	No value
Additional Bachelors or Associates Discipline:	No value

Course Development Options

Course Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade methods
- Satisfactory Progress

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type
CC Liberal Arts: Mathematics & Science	A.A. Degree for Transfer
CC Psychology for Transfer	A.A. Degree for Transfer

Transferability & Gen. Ed. Options

Request for Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

Cerro Coso General Education Requirements	Categories	Transferability Status	Comparable Course
Area 1.1	Natural Science Life Sciences	Approved	No Comparable Course defined.

CSU General Education Certification	Categories	Transferability Status	Comparable Course
Area B.2	Scientific Inquiry & Quantitative Reasoning Life Science	Approved	No Comparable Course defined.

Intersegmental General Education Transfer Curriculum	Categories	Transferability Status	Comparable Course
Area 5.B	Physical & Biological Sciences Biological Science	Approved	No Comparable Course defined.

Units and Hours

Summary

Minimum Credit Units (CB07)	4	**Total Course In-Class (Contact) Hours**	108	**Total Student Learning Hours**	216
Maximum Credit Units (CB06)	4	**Total Course Out-of-Class Hours**	108	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non-Credit Category (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Lab Hours	3	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	-
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	-
Total	108
Course Out-Of-Class Hours	
Lecture	-
Lab	-
Activity	-
Total	108

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Requisites

Prerequisite
ENGLC070 - Introductory Composition
In BIOL 105, students are expected to read a college-level textbook, journal articles and assigned internet readings with sufficient comprehension to be able to identify central points of reading materials, and to distinguish facts from opinions, identifying bias and drawing inferences. Students are also expected to be able to write summaries of assigned readings, answer homework questions using paragraph-length responses in clear and error-free prose, and complete lab reports. ENGL C070 provides the student with the requisite reading and writing skills to meet these expectations.

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
No value	No value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Demonstration	No value
Discussion	No value
Field Trip	No value
Guest Lecturers	No value
Laboratory	No value
Lecture	No value
Library	No value
Outside reading	No value
Project-based learning	No value
Written work	No value

Assignments

Readings from the assigned textbook. Example: The student is expected to read the weekly reading assignments from the text which relate to the lecture topic prior to the lecture.
Outlining the chapters and incorporating lecture notes with chapter outlines. Example: Students are expected to outline the assigned text reading and to relate and integrate the outlines with the lecture notes.
Homework assignments. Example: The student is expected to answer the instructor assigned questions from the relevant text chapters and additional instructional materials other than the text.
Written laboratory reports. Example: The student is required to write a formal lab report in a format consistent with that published in a scientific journal. The report summarizes the laboratory methods performed, data collected, and data analysis for each week's lab activity. Data should be analyzed in the context of the experiment's hypothesis, and to make conclusions for the experiment.

Methods of Evaluation	Methods of Evaluation Rationale
Homework	Homework Assignments: Students are asked to assimilate the assigned reading material. Example: Read chapter 2. Student should read chapter 2 and assimilate material. Method of material assimilation is not prescribed. It is suggested that students outline chapters, answer study questions in the text, utilize on-line materials provided by the text publisher, and form study groups.
Tests	Quizzes covering topics from lecture material and reading assignments are given. Example: A quiz covering sub atomic particles and bonds is given to assess students' understanding of these concepts.
Tests	Exams: Exams covering the material covered in lecture and reading assignments are given to assess student learning. Example: Exam one covers the scientific method, chemistry of life, biological molecules, cell biology, energy flow in biological systems, cellular respiration,

	and photosynthesis. The exam can be but is not limited to multiple choice, true/false, short answer and essay.
Other	Laboratory Experiments: Laboratory experiments are designed to provide hands-on learning for concepts discussed in lecture. Example: The effects of hypertonic and hypotonic solutions on cells are examined under the microscope to illustrate osmosis.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Simon, E.J., Dickey, J.L., Reece, J.B. & Hogan, K.A. . (2015) Essential Biology with Physiology, 5th Edition, Benjamin Cummings			

Other Instructional Materials

Description	Author	Citation
Other: Lab Manual developed on-site.		Concepts of Biology

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

Define key biological terms and apply basic biological concepts.

Describe important processes of the cell including chemistry, cellular structures, energy flow, protein synthesis, cellular reproduction and inheritance.

Apply the concepts of evolutionary biology and natural selection to organism form and function.

Distinguish key features of the domains and kingdoms of organisms.

Compare and contrast the form and function of important organ systems of animals and plants.

Learn ecological processes of populations, communities, ecosystems and the biosphere to understand the biological impacts of local and global policies and actions.

Apply biological knowledge, principles and skills to understand bioethical issues, and to use these as foundations for lifelong learning.

Demonstrate an understanding of the scientific method and the philosophy of science by designing components of experiments and carrying out exercises safely.

CSLOs

Use biological information literacy to read, analyze and comprehend scientific literature. Expected SLO Performance: 70.0

Describe core biological processes at the cellular, tissue, organs and organ systems level, including chemistry, cellular structures, energy flow, protein synthesis, cell reproduction and inheritance. Expected SLO Performance: 70.0

Apply key concepts of evolutionary biology and natural selection to explain the unity and diversity of all living organisms. Expected SLO Performance: 70.0

Compare and contrast ecological processes of populations, communities, ecosystems and the biosphere. Expected SLO Performance: 70.0

Relate key biological advancements to their applications in daily life. Expected SLO Performance: 70.0

Perform lab skills correctly using the scientific method, and display a habit of accurate and safe lab practices. Expected SLO Performance: 70.0

Outline

Course Outline

A. Scientific Method
B. Characteristics of Life
C. Chemistry of Life
1. Atomic Structure
2. Chemical Bonding
D. Biological Molecules
1. Organic Molecule Synthesis
2. Carbohydrates
3. Lipids
4. Proteins
5. Nucleic Acids
E. Cell Structures
1. Membrane Structure
2. Substances Crossing Membrane
3. Prokaryotic Cell Structures
4. Eukaryotic Cell Structures
F. Energy Flow in Life
1. Energy Flow in Chemical Reactions
2. Control of Metabolic Reactions
G. Photosynthesis
1. Light-Dependent Reactions
2. Light-Independent Reactions
H. Glucose Metabolism
1. Glycolysis
2. Cellular Respiration
I. DNA
1. Structure and Function
2. Replication
J. Gene Expression and Regulation
1. Relationship between Genes and Proteins
2. Transcription
3. Translation
4. Mutations and Genes
5. Gene Regulation
K. Cellular Reproduction
1. Function of Cellular Reproduction
2. Cell Cycle
3. Mitosis
4. Cytokinesis
5. Meiosis
6. Meiosis, Sexual Reproduction and Variability
L. Inheritance
1. Mendel and the Foundations of Inheritance
2. Single Trait Inheritance
3. Multiply Trait Inheritance
4. Sex Determination
5. Variations on Mendelian Genetics
6. Human Genetic Disorders
M. Biotechnology - Uses and Applications
N. Foundations of Evolution

1. Definition of Evolution
2. Darwin and His Ideas
3. Evidence for Evolution

O. Evolution in Populations
1. Gene Pool of a Population
2. Five Causes of Evolution
3. Natural Selection in Detail

P. Origin of Species
1. Allopatric and Sympatric Speciation
2. Maintenance of Reproductive Isolation
3. Causes of Extinction

Q. Systematics
1. Naming and Classifying Organism
2. Domains and Kingdoms
3. Biological Species Concept and Its Limitations
4. Phylogenetic Trees

R. Biodiversity of Microbes
1. Viruses
2. Bacteria and Archea
3. Single-Celled Eukaryotes

S. Biodiversity of Fungi and their Key Features

T. Biodiversity of Plants
1. Key Features
2. Evolutionary Origin of Plants
3. Colonization of Land

U. Biodiversity of Animals
1. Key Features
2. Major Branch Point of Evolutionary Tree
3. Survey of Phyla

V. Plant Form and Function
1. Roots
2. Stems
3. Leaves
4. Transport of Water
5. Transport of Sugars

W. Plant Reproduction
1. Pollination and Fertilization
2. Seed and Fruit Development
3. Seed Germination

X. Animal Circulation
1. Heart
2. Blood
3. Types and Functions of Blood Vessels
4. Lymphatic System

Y. Respiration
1. Gas Exchange
2. Human Respiratory Structures

Z. Digestion
1. Survey of Important Nutrients
2. Process of Digestion
3. Human Digestive Structures

AA. Immune System
1. Body's Defense System
2. Immune Response
3. Immune System Malfunctions

BB. Animal Reproduction

1. Types of Reproduction
2. Human Reproductive System
3. Limiting Fertility
CC. Population Ecology
1. Population Growth and Regulation
2. Human Population Growth
DD. Community Ecology
1. Competition
2. Predator-Prey Interactions
3. Symbiosis
4. Community Structure
EE. Ecosystem Ecology
1. Energy Flow
2. Nutrient Flow
3. Global Warming
FF. Biomes
1. Factors Influencing Weather and Climate
2. Life Distributed on Land
3. Life Distributed in Water

Lab Outline

Laboratory Experiments
1. Lab Safety
2. Scientific Method
3. Microscopy
4. Cells and Osmosis
5. Metabolism
6. Photosynthesis
7. Cell Division
8. Heredity
9. Molecular Dogma
10. Gel Electrophoresis
11. Natural Selection
12. Topics in Evolution
13. Circulatory System
14. Respiratory System
15. Reproductive system
16. Fetal Pig Dissection
17. Plant Survey
18. Plant Reproduction
19. Biomes

Laboratory exercises are designed to complement and reinforce the understanding of lecture materials. Example: The effects of hypertonic and hypotonic solutions on cells are examined in experiments to illustrate the mechanism of osmosis.

Laboratory exercises also introduce students to proper laboratory practices and hypothesis driven inquiry. Students will learn to use the scientific method in designing and conducting experiments, analyzing data, and make inferences from the results obtained.

Cerro Coso College

Course Outline of Record Report

05/01/2018

COUNC101 : Tools for College Success

General Information

Author(s):	-
Subject (CB01):	COUN
Number (CB01):	C101
Course Title (CB02):	Tools for College Success
Department:	Counseling
Proposal Start:	Summer 2017
TOP Code (CB03):	(4930.10) Career Guidance and Orientation
SAM Priority Code (CB09):	Non-occupational
Distance Education Approved:	No
Course Control Number (CB00):	CCC000292453
Curriculum Committee Approval Date:	11/18/2016
Board of Trustees Approval Date:	03/09/2017
External Review Approval Date:	07/23/2014
Course Description:	This course introduces students to the process of academic and career planning by means of personal and group exercises. Skills such as thinking critically, using college resources, developing personal awareness, and identifying motivational factors are explored, and topics of diversity are addressed.
Submission Rationale:	New Course

Faculty Requirements

Master Discipline Preferred:	• Counseling
Alternate Master Discipline Preferred:	• Psychology • Counseling • Psychology
Bachelors or Associates Discipline Preferred:	No value
Additional Bachelors or Associates	No value

Discipline:

Course Development Options

Course Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade methods
- Pass/No Pass

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program

No value

Award Type

No value

Transferability & Gen. Ed. Options

Request for Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	2	**Total Course In-Class (Contact) Hours**	36	**Total Student Learning Hours**	108
Maximum Credit Units (CB06)	2	**Total Course Out-of-Class Hours**	72	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non-Credit Category (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	2	4
Lab Hours	-	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	-
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	-
Total	36
Course Out-Of-Class Hours	
Lecture	-
Lab	-
Activity	-
Total	72

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class

No value	No value	No value	No value

Requisites

Prerequisite
ENGLC040 - Improving Basic Writing Skills
ENGL C040
Students in COUN C101 must be able to write journals using paragraph-length responses and answer essay questions in clear prose based on readings from various texts. ENGL C040 skills prepare students to succeed in COUN C101 by ensuring they are able to write short compositions with clear organization.

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
No value	No value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Audiovisual	No value
Discussion	No value
Group Work	No value
Guest Lecturers	No value
In-class writing	No value
Instruction through examination or quizzing	No value
Lecture	No value
Library	No value
Outside reading	No value
Presentations (by students)	No value
Problem Solving	No value
Project-based learning	No value
Skills Development and Performance	No value
Written work	No value
Other	A. Classroom lecture and discussions of course concepts B. Textbook readings addressing goal setting, study skills, issues of diversity, and personal assessment. Use of online college catalog for interpretations of educational requirements. C. Classroom exercises to explore new ideas, concepts, and practice application of new skills. D. Class meetings held in other locations on campus to familiarize students with campus resources.

Assignments

- **A. Reading assignments Example: Students will be assigned readings from the textbook and required to complete the self-assessment questions following each chapter. B. Short papers on assigned topics Example: Students will be assigned a short paper on active listening. C. Group papers and projects on assigned topics Example: Students will work as a group to find the admission requirements for transfer students to the CSU system schools. D. Research papers on an assigned topic Example: Students will be required to write a research paper on a person of interest discussed during the class and the assignment would include an annotated bibliography. E. Field trips Example: Students might visit the California State University, Northridge campus. F. Journals Example: Students may be assigned a bi-weekly self-evaluation of their current academic success to include their use of any of the techniques learned in class.**

Methods of Evaluation	Methods of Evaluation Rationale
Tests	Quizzes and essay examinations testing the student's comprehension of the concepts and techniques presented in the lectures and textbook readings.
Other	Writing assignment using long-term education plan. Example: Students are required to meet with a counselor to discuss educational goals and to

	develop a long-term education plan for meeting this goal. Complete writing assignment articulating their goal using their long-term education plan and list several steps to meeting their education goal.
Other	Career and personality assessments including group interpretations and a career plan. Example: Students are required to complete specific career evaluation tools including but not limited to Career Cafe or Myers Briggs Type Indicator and work with a counselor to develop career goals.
Other	Study skills. Example: Students will learn a variety of note taking, test taking, and time management skills and will be required to complete a self-assessment on the impact of a new skill on their current course grades.
Project	Projects, papers, and presentations demonstrating the application of class concepts and material. Example: Students will create a diversity collage to demonstrate recognition of diversity. Students will prepare a presentation of the diversity collage.
Participation	Participation in class exercises to practice application of concepts and skills presented in class lecture and readings.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Downing, S. (2017) On Course Strategies for Creating Success in College and in Life, 8th, Cengage Learning			

Other Instructional Materials

Description	Author	Citation
No Value	No Value	No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Develop an educational goal and a pathway to meet this goal.	Expected SLO Performance: 70.0
Utilize skills or strategies necessary for success in college.	Expected SLO Performance: 70.0
Analyze the personal value or impact of diversity in one's life.	Expected SLO Performance: 70.0

Outline

Course Outline

A. Academic Planning
1. Determine general and major educational requirements
2. Explore available campus; online; and community resources
3. Research educational institutions matching personal objectives
4. Develop a long-term education plan
B. Career Exploration
1. Explore careers using models such as the Holland Code and the World of Work
2. Complete career assessment and apply personal interpretation
3. Develop a career action plan
C. Self Assessment
1. Assess personal strengths
2. Complete learning styles inventory
3. Complete personality assessment using the Myers Briggs
4. Complete study skills assessment
5. Integrate assessments and apply as they relate to educational and career plans
D. Understanding Diversity
1. Explore diversity topics such as culture; race; gender; and sexual orientation
2. Examine indivdual personal and environmental influences
3. Identify own biases
4. Examine role of advocacy and tolerance related to diversity and equity
E. Applying Study/Life Skills
1. Examine process of critical thinking
2. Examine and apply conflict resolution skills
3. Apply time management principles
4. Create a personal budget
6. Review of skills including note taking; reading; test taking; writing; and study techniques
7. Apply goal-setting process to increase motivation
8. Identify characteristics of successful behaviors
9. Apply study skills strategies
10. Apply effective decision-making

Cerro Coso College

Course Outline of Record Report

05/01/2018

ENGLC101 : Freshman Composition

General Information

Author(s):	-
Subject (CB01):	ENGL
Number (CB01):	C101
Course Title (CB02):	Freshman Composition
Department:	English
Proposal Start:	Summer 2017
TOP Code (CB03):	(1501.00) English
SAM Priority Code (CB09):	Non-occupational
Distance Education Approved:	Yes
Course Control Number (CB00):	CCC000209431
Curriculum Committee Approval Date:	11/15/2013
Board of Trustees Approval Date:	12/19/2013
External Review Approval Date:	03/06/2014
Course Description:	In this composition course for transfer to four-year institutions, students write expository and argumentative essays that respond to a variety of rhetorical situations and incorporate university-level research. The course emphasizes critical reading, effective use of language, and analysis of university-level concepts presented in outside sources. Students write four to five expository essays including a lengthy research paper (total: 7,000 words).
Submission Rationale:	New Course

Faculty Requirements

Master Discipline Preferred:	• English
Alternate Master Discipline Preferred:	• English
Bachelors or Associates Discipline Preferred:	No value
Additional Bachelors or Associates	No value

Discipline:

Course Development Options

Course Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Pass/No Pass
- Letter Grade methods

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program

No value

Award Type

No value

Transferability & Gen. Ed. Options

Request for Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

Cerro Coso General Education Requirements	Categories	Transferability Status	Comparable Course
Area 4.1	Language & Rationality English Composition	Approved	ENGL 100

CSU General Education Certification	Categories	Transferability Status	Comparable Course
Area A.2	English Language	Approved	ENGL 100

Communication & Critical Thinking Written Communication

Intersegmental General Education Transfer Curriculum	Categories	Transferability Status	Comparable Course
Area 1.A	English Communication English Composition	Approved	No Comparable Course defined.

Units and Hours

Summary

Minimum Credit Units (CB07)	4	**Total Course In-Class (Contact) Hours**	72	**Total Student Learning Hours**	216
Maximum Credit Units (CB06)	4	**Total Course Out-of-Class Hours**	144	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non-Credit Category (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Lab Hours	-	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	-
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	-

Total	72
Course Out-Of-Class Hours	
Lecture	-
Lab	-
Activity	-
Total	144

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Requisites

Prerequisite
ENGLC070 - Introductory Composition
In English 101, students are expected to analyze college-level reading material, write clearly structured text-based essays which require finding, evaluating, organizing, and effectively integrating college-level source material, and employ MLA formatting and documentation, all skills taught in English 70: Introductory Composition

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
No value	No value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Discussion	No value
Group Work	No value
Guest Lecturers	No value
In-class writing	No value
Lecture	No value
Library	No value
Outside reading	No value
Peer analysis, critique & feedback	No value
Written work	No value

Assignments

- A. Answering reading questions.
B. Reading essays.
C. Diagramming arguments.
D. Finding, reading, and evaluating secondary sources.
E. Planning, drafting, and revising of papers.
F. Completing other out-of-class work.
A. Answering reading questions.
B. Reading essays.
C. Diagramming arguments.
D. Finding, reading, and evaluating secondary sources.
E. Planning, drafting, and revising of papers.
F. Completing other out-of-class work.

Methods of Evaluation	Methods of Evaluation Rationale
Other	several 1250-1500 word text-based essays demonstrating the student's ability to work in different modes, apply features of a documentation style, analyze and synthesize university-level reading, self-edit for eliminating major and minor grammatical errors and for stylistic clarity and directness. • Example: Write a persuasive paper of 1250-1500 words in which you define "fairy tale" and then argue in what ways Homer's Odyssey qualifies as a fairy tale.
Other	in-class writing assignments.
Other	quizzes on the university-level readings, testing comprehension and understanding of structure, purpose, audience, and relation of ideas to other texts. • Example: Find three examples of irony in the first ten pages of Oedipus the King.

Other	take-home reading responses on readings as homework.
Research Paper	one research essay of at least 2000 words demonstrating the student's ability to identify and evaluate useful sources, employ the complete documentation system, and use all the skills demonstrated in the shorter essays. Example: Write a 2000-2500 research paper, using at least eight sources, in which you discuss how and why fairy tales have changed over the last few hundred years up to the present day.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Berens, L., Rosen, L.. (2012) Writing and Reading Across the Curriculum, 12th, Longman			
	Behrens, L., Rosen, L., Beedles, B. . (2012) A Sequence for Academic Writing , 5th, Longman.			
	Jacobs, L. . (2013) A World of Ideas: Essential Readings for College Writers , 9th, Bedford/St. Martinâ€™s			
	Spatt, B. . (2011) Writing from Sources , 8th, Bedford/St. Martinâ€™s			
	Axelrod, R. B., & Cooper, C.R. . (2013) The St. Martinâ€™s Guide to Writing , 10th, Bedford/St. Martinâ€™s			

Other Instructional Materials

Description	Author	Citation
No Value	No Value	No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Read, analyze, and evaluate a variety of university-level texts for content, context, and rhetorical merit with consideration of tone, audience, and purpose. Expected SLO Performance: 70.0

Apply a variety of rhetorical strategies in writing unified, well-organized academic essays with arguable theses and persuasive support, using complex ideas presented in university-level sources. Expected SLO Performance: 70.0

Develop varied and flexible strategies for generating, drafting, and revising essays. Expected SLO Performance: 70.0

Evaluate the style of one's own writing and the writing of others and self-correct for greater clarity and directness. Expected SLO Performance: 70.0

Write timed essays in class exhibiting acceptable college-level control of mechanics, organization, development, and coherence. Expected SLO Performance: 70.0

Integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism. Expected SLO Performance: 70.0

Find, evaluate, analyze, interpret, and see the relations among primary and secondary sources, incorporating them into written essays using accurate MLA documentation and formatting. Expected SLO Performance: 70.0

Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation. Expected SLO Performance: 70.0

Outline

Course Outline

A. Read; analyze; and evaluate a variety of university-level texts for content; context; and rhetorical merit with consideration of tone; audience; and purpose.
1. Understand how to read; analyze; and evaluate texts
a. Read texts to understand the author's purpose; intended audience; and tone
b. Underline; annotate; and outline texts to distinguish between an author's main idea; major supporting details; and minor supporting details
c. Paraphrase and summarize to clarify texts
d. Analyze an author's argument and stylistic presentation
e. Interpret and evaluate texts
f. Draw inferences and ask questions
g. Synthesize the information and ideas with other readings
2. Understand academic sources
a. Understand that language in academic sources is more highly specialized and generally dense
b. Understand that academic sources often require inferring prior knowledge
c. Understand that academic sources are developed in a variety of modes

B. Apply a variety of rhetorical strategies in writing unified; well-organized academic essays with arguable theses and persuasive support; using complex ideas presented in university-level sources.
1. Use sound essay structure appropriate for university-level writing
2. Create paragraph topics for development and logical method of organization appropriate for university-level writing
3. Develop sound thesis statements that make specific and interesting claim
4. Employ and combine a variety of modes as appropriate to the writer's purpose:
a. Summarize texts&mdash:present the key ideas of another in a balanced and readable way
b. Argue&mdash:make a case for or against sources
c. Explain and illustrate&mdash:provide information and examples
d. Define&mdash:present extended definition of a word or concept
e. Analyze&mdash:break the subject down into parts/ideas; organizing by these parts/ideas; and explaining these parts/ideas
f. Synthesize&mdash:bring together multiple sources to discuss a similar idea; organizing by ideas rather than by sources
g. Critique or evaluate&mdash:discuss strengths and weaknesses
h. Compare or contrast&mdash:highlight significant similarities or differences to explain a point or support a conclusion
i. Classify&mdash:break a large subject into smaller categories

C. Develop varied and flexible strategies for generating; drafting; and revising essays.
1. Understand the writing prompt
2. Brainstorm; chart; freewrite; or do other invention strategies
3. Develop a working thesis
4. Work from an outline to plan essays
5. Revise based on reader's needs for clarity; accuracy; and development
6. Edit for tone; readability; and correctness

D. Evaluate the style of one's own writing and the writing of others and self-correct for greater clarity and directness.
1. Use clear and direct expression at the sentence level
a. Use strong subjects and verbs
b. Write concisely; eliminating buzzwords and long-winded phrases
c. Use words with precision; avoiding the needless use of the passive voice
d. Organize ideas: from simple to complex; from most familiar to least; from safe to challenging and new ideas
2. Use clear and direct expression at the paragraph level appropriate for university-level writing
a. Maintain paragraph unity
b. Create paragraph coherence

i. Write effective topic sentences that introduce the paragraph's main focus and support the paper's thesis
ii. Use subtopic sentences to cue readers
iii. Use transitions to indicate relationships between ideas
iv. Use cohesive devices: pronoun references; word repetition; sentence-structure repetition
c. Create good paragraph development
i. Support claims with ample and varied evidence
ii. Write explanations
iii. Provide context

E. Write timed essays in class exhibiting acceptable college-level control of mechanics; organization; development; and coherence.
1. Understand the writing prompt
2. Use time carefully to prewrite; write; and proofread the essay
3. Create a thesis statement
4. Write fast outline that organizes ideas supporting the essay's purpose
5. Write clear topic sentences
6. Develop paragraphs and use evidence to support claims
7. Proofread and edit quickly

F. Integrate the ideas of others through paraphrasing; summarizing; and quoting without plagiarism.
1. Integrate sources
a. Provide context
b. Avoid dropped quotations
c. Punctuate around quotations
d. Use multiple sources within a single paragraph
e. Use boundary markers
f. Use ellipses and brackets in quotations
2. Write and cite paraphrases of university-level sources
3. Write and cite summaries of university-level sources
4. Write and cite quotations of university-level sources
5. Decide when to paraphrase or quote
6. Blend quotation and paraphrase

G. Find; evaluate; interpret; analyze; and see the relations among primary and secondary sources; incorporating them into written essays using accurate MLA documentation and formatting.
1. Find academic; scholarly sources
a. Use library's catalog to find university-level books and reference materials
b. Use library's databases to find university-level articles in scholarly journals
c. Search websites appropriately to find university-level web sources
2. Evaluate and interpret sources
a. Evaluate periodicals for reliability
b. Evaluate books for reliability
c. Evaluate web sources for reliability
d. Evaluate sources for relevance
3. Analyze and see relations among academic sources
a. Look for common ideas or other patterns in the reading materials
b. Distinguish words and identifying terms
c. Create classification schemes appropriate to the material
4. Use complete and accurate MLA style
a. Avoid plagiarism
b. Understand when to document sources and when not to
c. Write parenthetical citations
d. Write works cited entries
e. Format papers according to MLA requirements; including page numbers; one-inch margins; double spacing; indentations; etc.

H. Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar; usage; or punctuation.
1. Use correct grammar

a. Avoid sentence-boundary errors: comma splices; run-on sentences; and sentence fragments
b. Maintain parallelism
c. Avoid pronoun errors and mixed construction
d. Use effective coordination and subordination
2. Use correct punctuation
a. Use punctuation correctly within sentences to create sophisticated yet clear sentences: commas; apostrophes; dashes; hyphens; colons; and semicolons
b. Use correct punctuation around and within quotations: quotations marks; slashes; brackets; ellipses; commas; and colons

Cerro Coso College

Course Outline of Record Report

05/01/2018

PHEDC181 : Intercollegiate Softball I

General Information

Author(s):	-
Subject (CB01):	PHED
Number (CB01):	C181
Course Title (CB02):	Intercollegiate Softball I
Department:	Physical Education
Proposal Start:	Summer 2017
TOP Code (CB03):	(0835.50) Intercollegiate Athletics
SAM Priority Code (CB09):	Non-occupational
Distance Education Approved:	No
Course Control Number (CB00):	CCC000319249
Curriculum Committee Approval Date:	04/29/2016
Board of Trustees Approval Date:	06/09/2016
External Review Approval Date:	10/19/2011
Course Description:	This course involves participation in a high level of competition and skill development in softball. There is an emphasis on advanced skill, theory, tactics, and strategy in intercollegiate softball competition. All students must meet California Community College Athletics Association Athletic Code. Enrollment is limited to intercollegiate athletes.
Submission Rationale:	New Course Non-Standard Hours Justification: Intercollegiate athletics standard.

Faculty Requirements

Master Discipline Preferred:	• Coaching
Alternate Master Discipline Preferred:	• Physical Education • Physical Education
Bachelors or Associates Discipline Preferred:	• Coaching
Additional Bachelors or Associates	No value

Discipline:

Course Development Options

Course Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Pass/No Pass
- Letter Grade methods

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Activity/Other Repeatable||Limit:|Three times

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program

No value

Award Type

No value

Transferability & Gen. Ed. Options

Request for Transferability (CB05)

Transferable to CSU only

Transferability Status

Approved

Cerro Coso General Education Requirements	Categories	Transferability Status	Comparable Course
Area 7.2	Health & Wellness Activity	Pending	No Comparable Course defined.

CSU General Education Certification	Categories	Transferability Status	Comparable Course
Area E.2	Lifelong Learning & Self-Development	Pending	No Comparable Course defined.

Activity

Units and Hours

Summary

Minimum Credit Units (CB07)	-	**Total Course In-Class (Contact) Hours**	-	**Total Student Learning Hours**	-
Maximum Credit Units (CB06)	-	**Total Course Out-of-Class Hours**	-	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non-Credit Category (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	-	-
Lab Hours	-	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	-
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	-
Total	-
Course Out-Of-Class Hours	
Lecture	-
Lab	-
Activity	-
Total	-

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Non Standard

Summary

Minimum Credit Units (CB07)	1	**Total Course In-Class (Contact) Hours**	175	**Total Student Learning Hours**	175
Maximum Credit Units (CB06)	1	**Total Course Out-of-Class Hours**	-	**Faculty Load**	-

Detail

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	-	-
Lab Hours	-	-
Activity Hours	9.72	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	175
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	175
Total	175
Course Out-Of-Class Hours	
Lecture	-

Lab	-
Activity	-
Total	-

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Non Standard - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Requisites

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
All students must meet CCCCAA Athletic Code Eligibility Guidelines. Participants must be enrolled in a minimum of 12 units during the season of competition.	No Value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Demonstration	No value
Discussion	No value
Group Work	No value
Lecture	No value
Performance	No value
Skills Development and Performance	No value
Other	Other Methods: Activity

Assignments

- Mandatory participation at all team practice sessions and contests. Study of CCCAA eligibility and transfer rules for intercollegiate athletes in preparation for quizzes and exams. Study of NCAA Softball rules and regulations in preparation for quizzes and exams.

Methods of Evaluation	Methods of Evaluation Rationale
Tests	Quizzes or exams of Rules as related to NCAA and CCCAA guidelines.
Participation	Student grading will be based on participation in all practice sessions and scheduled contests.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
No Value	No Value	No Value	No Value	No Value

Other Instructional Materials

Description	Author	Citation
Other: California Community College Athletics Handbook for eligibility and transfer students.		Intercollegiate Softball I
Other: NCAA softball rules and regulations		Intercollegiate Softball I

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Perform softball skills related to athlete's position and team objectives.	Expected SLO Performance: 70.0
Compete in a highly organized team sport at a collegiate performance level of competition.	Expected SLO Performance: 70.0
Apply the skills and techniques specific to softball competitive play.	Expected SLO Performance: 70.0
Identify the official rules and their interpretations in game play.	Expected SLO Performance: 70.0
Display proper sportsmanship both on and off the field.	Expected SLO Performance: 70.0

Outline

Course Outline

A. Proper Conditioning Skills
1. Stretching techniques
2. Cardiovascular endurance training and techniques
3. Throwing and catching techniques

B. Fundamental Skills
1. Proper throwing techniques
2. Proper catching techniques
3. Proper hitting techniques

C. Offensive Theory
1. Proper base running techniques
a. Aggressiveness
b. Taking the extra base
c. Knowing the game situation
d. Coordinating the running with hitting
e. Getting a jump on the ball
2. Hit and run
3. Bunt and run
4. Squeeze play
5. Stealing

D. Defensive Theory
1. Handling cut-offs and relays
2. Run down plays
3. Double plays
4. Handling sacrifice plays

E. Intra-squad Games
1. Situations will be pre-set to drill the team
2. Games will be adapted to the situation desired
3. Understanding of the rules will be stressed

F. Game Day Procedures
1. Activities
2. Pre-game meal
3. Warm-up procedures

G. Statistical Analysis
1. Game charts
2. Pitching charts
3. Offensive/defensive tendencies charts

H. Eligibility and Transfer Requirements
1. Cerro Coso eligibility requirements
2. California community College Athletics Assocation eligibility requirements.
3. NAIA transfer requirements.
4. NCAA transfer requirements.

Cerro Coso College

Course Outline of Record Report

05/01/2018

PSYCC220 : Physiological Psychology

General Information

Author(s):	-
Subject (CB01):	PSYC
Number (CB01):	C220
Course Title (CB02):	Physiological Psychology
Department:	Social Science
Proposal Start:	Summer 2017
TOP Code (CB03):	(2001.00) Psychology, General
SAM Priority Code (CB09):	Non-occupational
Distance Education Approved:	Yes
Course Control Number (CB00):	CCC000547264
Curriculum Committee Approval Date:	10/02/2015
Board of Trustees Approval Date:	11/03/2015
External Review Approval Date:	12/03/2015
Course Description:	This course introduces the scientific study of the biological bases of behavior and its fundamental role in the neurosciences. Physiological, hormonal, and neurochemical mechanisms, and brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, learning, memory, and psychological disorders are addressed. The course also notes historical scientific contributions and current research principles for studying brain-behavior relationships and mental processes. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research.
Submission Rationale:	New Course

Faculty Requirements

Master Discipline Preferred:	• Psychology
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	No value

Additional Bachelors or Associates Discipline:	No value

Course Development Options

Course Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade methods
- Pass/No Pass

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type
CC Psychology for Transfer	A.A. Degree for Transfer

Transferability & Gen. Ed. Options

Request for Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

Cerro Coso General Education Requirements	Categories	Transferability Status	Comparable Course
Area 2.1	Social & Behavioral Sciences Social	Approved	No Comparable Course defined.

CSU General Education Certification	Categories	Transferability Status	Comparable Course

Area D.9	Social Sciences Psychology	Approved	No Comparable Course defined.

Intersegmental General Education Transfer Curriculum	Categories	Transferability Status	Comparable Course
Area 4.I	Social and Behavioral Sciences Psychology	Approved	No Comparable Course defined.

Units and Hours

Summary

Minimum Credit Units (CB07)	3	**Total Course In-Class (Contact) Hours**	54	**Total Student Learning Hours**	162
Maximum Credit Units (CB06)	3	**Total Course Out-of-Class Hours**	108	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non-Credit Category (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Lab Hours	-	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	-
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	-
Total	54

Course Out-Of-Class Hours	
Lecture	-
Lab	-
Activity	-
Total	108

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Requisites

Prerequisite
PSYCC101H - General Psychology : Honors
Required by Four-Year College

Student may be enrolled in **either** Psyc 101 **OR** Psyc 101H
AND
Prerequisite
PSYCC101 - General Psychology
Required by Four-Year College
Student may be enrolled in **either** Psyc 101 **OR** Psyc 101H
AND
Prerequisite
ENGLC070 - Introductory Composition
Students are expected to read and comprehend college-level texts explaining complex psychological research. In addition, they must critically analyze scholarly articles for written assignments. Students are also expected to write papers as well as respond to essay questions on exams. This requires that they write in a clear and organized manner free from errors. The ENGL C70 prerequisite ensures students have the skills necessary for success in these assignments.

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
No value	No value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Audiovisual	No value

Discussion	No value
Group Work	No value
In-class writing	No value
Instruction through examination or quizzing	No value
Lecture	No value
Outside reading	No value
Presentations (by students)	No value
Written work	No value

Assignments

A. Reading assignment in text book and supplemental material. Example: Read the chapter on the ethical consideration of animal and human research of your text book. Be prepared to discuss the implications of invasive and non-invasive research methods and ethical considerations.
B. Diagram and explain the process of specific anatomical parts of the nervous system. Example: Draw a motor neuron, identifying each of its parts and explain the process of the neuronal impulse as it moves through the neuron and activates the post-synaptic neuron. Be prepared to discuss the neuron's function within the nervous system.
C. Conduct research and write on topics covered or related to the topical outline. Example Research the effects of a psychoactive drug on the nervous system and behavior.

Methods of Evaluation	Methods of Evaluation Rationale
Tests	A. Examinations - which can include multiple choice, diagrams, and short answers,to identify key concepts, terminology, anatomical features., and theoretical perspectives.
Other	B. Short essays explaining the relationship of specific behaviors to processing functions of the nervous and endocrine systems of the body. For example: Explain the recovery factors following a stroke.
Research Paper	C. Term paper requiring students to research on selected topics. For example, topics could include the phenomenon of phantom limb syndrome, Synesthesia, or REM deprivation.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Kalat, James W.. (2013) Biological Psychology, 11th ,	Wadsworth Cengage		

Learning

Other Instructional Materials

Description	Author	Citation
No Value	No Value	No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

Define and use basic biological, physiological, and psychological terminology of the neurosciences .

Differentiate among specialty areas within Biological Psychology and the related disciplines within the Neurosciences and the types of research that characterize the biopsychological approach.

Summarize the major issues in human evolution, genetics, and behavioral development that underlie the “biology of behavior.”

Generate and explicate concrete examples of invasive vs. noninvasive research methods and the general principles of research ethics for the study of animals and human beings, including the research safeguards and the peer-review process in science.

Explain scientific approaches used in methodologies for the study of brain-behavior relationships.

Explain the general anatomy and physiology of the nervous system and its relationship to behavior .

Describe neural conduction and synaptic transmission.

Discuss the role of the neuroendocrine system as it relates to behavior.

Exemplify with concrete examples various brain-behavior relationships including ingestive behavior, sexual behavior, sleep, learning, memory, stress, drug dependence, and psychiatric disorders such as affective disorders and schizophrenia.

CSLOs

Define and use basic biological, physiological, and psychological terminology of the neurosciences. Expected SLO Performance: 70.0

Explain scientific approaches used in methodologies for the study of brain-behavior relationships and the types of research that characterize the biopsychological approach. Expected SLO Performance: 70.0

Explain and generate concrete examples of invasive vs. noninvasive research methods and the general principles of research ethics for the study of animals and human beings, including the research safeguards and the peer-review process in science. Expected SLO Performance: 70.0

Analyze the major issues in human evolution, genetics, and behavioral development that underlie the "biology of behavior." Expected SLO Performance: 70.0

Describe the neural conduction and synaptic transmission. Expected SLO Performance: 70.0

Explain the role of the neuroendocrine system as it relates to behavior. Expected SLO Performance: 70.0

Outline

Course Outline

1. Major Issues
a. Biopsychology as a Neuroscience
b. Genetics; behavior and human evolution
c. Heredity and Environment
d. Biopsychological Research Methods
e. Ethics of Research
i. Invasive vs. non-invasive studies
ii. Human research studies
iii. Animal research studies
2. Nerve Cells and Nerve Impulses and communication within the nervous system
3. Synapses
a. Properties of the synapse
b. Chemical events at the synapse
c. Synapsis; drugs and addiction
i. Abused drugs
ii. Alcohol and alcoholism
iii. Medications to combat substance abuse
4. Anatomy of the Nervous System
a. Central Nervous System
b. Peripheral Nervous System
c. Cerebral Cortex
d. Effects of brain stimulation
e. Recording brain activity
f. Correlating brain activity with behavior
5. Development of the Brain
a. Maturation of the brain
b. Vulnerability of the developing brain
c. Experience and the development of the brain
d. Brain development and behavioral development
6. Plasticity of the brain
a. Brain damage and short term recovery
b. Concussions and stoke
c. Later mechanisms of recovery
d. Learned adjustments in behavior
7. Sensory Systems
a. Vision
b. Audition
c. Mechanical Senses
d. Chemical Senses
e. Phantom limb
f. Synesthesia
8. Movement
a. Control of movement
b. Brain mechanisms of movement
c. Movement disorders
i. Parkinson's Disease
ii. Huntington's Disease
9. Wakefulness and Sleep
a. Stages of sleep and brain mechanisms
i. endogenous cycles

ii. Mechanisms of the Biological Clock
b. Functions of sleep
i. Sleep and memory
ii. Functions of Rapid Eye Movement sleep
c. Biological perspectives on dreaming
10. Internal Regulation
a. Thirst
b. Hunger
c. Eating disorders
11. Endocrine System
12. Reproductive Behaviors
a. Sex and hormones
b. Variations in sexual behavior
13. Emotional Behavior
a. Emotions and autonomic arousal
b. Brain areas associated with emotion
c. Decision making after brain damage that impacts emotions
d. Attack behaviors
e. Fear and Anxiety
f. Stress and health
i. Immune system
ii. Post-traumatic stress disorder
14. Biology of Learning and Memory
a. Localized Representation of memory
b. Types of memory
c. Hippocampus
d. Basal Ganglia
e. Types of Amnesia
f. Storing information in the nervous system
15. Cognitive Functions
a. Lateralization of function
b. Evolution and physiology of language
c. Conscious and unconscious process of attention
16. Mood Disorders and Schizophrenia
a. Genetics
b. Biological Influences
c. Antidepressant drugs
d. Psychoactive drugs
e. Neurodevelopmental hypothesis of Schizophrenia

Cerro Coso College

Course Outline of Record Report

05/01/2018

WELDC200 : Gas Metal Arc Welding (GMAW)

General Information

Author(s):	-
Subject (CB01):	WELD
Number (CB01):	C200
Course Title (CB02):	Gas Metal Arc Welding (GMAW)
Department:	Industrial Arts
Proposal Start:	Summer 2017
TOP Code (CB03):	(0956.50) Welding Technology
SAM Priority Code (CB09):	Clearly Occupational
Distance Education Approved:	No
Course Control Number (CB00):	CCC000504287
Curriculum Committee Approval Date:	01/25/2013
Board of Trustees Approval Date:	03/14/2013
External Review Approval Date:	06/04/2013
Course Description:	In this course students gain practical experience in Gas Metal Arc Welding (GMAW), Metal Inert Gas (MIG) as well as learn safety, welding and identification of ferrous and non-ferrous metals, shielding gasses, bare and flux cored electrodes, and proper selection of welding materials for different applications.
Submission Rationale:	New Course

Faculty Requirements

Master Discipline Preferred:	No value
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	• Welding
Additional Bachelors or Associates Discipline:	• Welding

Course Development Options

Course Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade methods
- Satisfactory Progress

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type
CC Industrial Technology	A.A. Degree for Transfer
CC Industrial Technology-	Certificate of Achievement
CC Welding Technology	A.A. Degree for Transfer
CC Welding Processes Cert	Certificate of Achievement
CC Welding Technology-	Certificate of Achievement

Transferability & Gen. Ed. Options

Request for Transferability (CB05)	Transferability Status
Transferable to CSU only	Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	2	**Total Course In-Class (Contact) Hours**	72	**Total Student Learning Hours**	108
Maximum Credit Units (CB06)	2	**Total Course Out-of-Class Hours**	36	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non-Credit Category (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	1	2
Lab Hours	3	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	-
Course In-Class (Contact) Hours	
Lecture	-
Lab	-
Activity	-
Total	72
Course Out-Of-Class Hours	
Lecture	-
Lab	-
Activity	-
Total	36

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -

Faculty Load: -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Requisites

Prerequisite
WELDC101 - Oxyacetylene Welding
The students entering this class need the skills learned in WELD C101 including safety, care and operation of high pressure cylinders and regulators, identification of metals, terminology, joint configuration, welding positions, symbols and weld pool manipulation.

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
No value	No value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Audiovisual	No value
Demonstration	No value
Discussion	No value
Laboratory	No value
Lecture	No value
Peer analysis, critique & feedback	No value
Project-based learning	No value
Other	Other Methods: Textbook tutorialsOther Methods: Textbook tutorialsPractical exercises

Assignments

Text readings. Example: Weld Metal Transfer. The mode of metal transfer is the mechanism by which molten metal is transferred across the arc to the base metal. The modes of metal transfer are short-circuiting transfer(GMAW-S), axial-spray transfer, globular transfer, and pulsed-arc transfer (GMAW-P). Selecting the mode of transfer depends on the welding power source, the wire electrode size, type and thickness of material, type of shielding gas used, and the best welding position used for the task. Research report. Example: Gather information on the the more popular uses for GMAW. Explain how the process has change from the 1960's both in technology and the types of jobs capable of being performed from then until now.

Methods of Evaluation	Methods of Evaluation Rationale
Final Exam	Final written and practical exam Example: Theory Final Exam. True or false. Oxygen, carbon dioxide, helium, and nitrogen can be blended with argon to change argon's welding characteristics. Example: Practical Final Exam. Students will make a series of welds on a pre-assembled, mild steel fixture in all positions using short circuit transfer method.
Homework	Instructor assigned homework and readings that supplement and augment class lectures and demonstrations.
Tests	Exams on readings and handouts. Example: Effects of shielding gas on welding.
Other	Practical assignments making specific types of welds. Example: Horizontal welds performed in the 2F position utilizing both the forhand and backhand techniques.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Jeffus, L. F.. (2012) Welding: Principles and Applications, 7th ed., Delmar, Cengage Learning			

Other Instructional Materials

Description	Author	Citation
No Value	No Value	No Value

Materials Fee

Yes Fee: 40.00 Justification: The student welding fee is for a portion of the cost of consumables used for student exercises and projects. Materials include shielding gasses, welding wire, metal, etc.

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Practice clean and safe working habits to OSHA standards that are consistent with trade practices . Expected SLO Performance: 70.0

Demonstrate how to set up a GMAW installation. Expected SLO Performance: 70.0

Control the quality of the weld by changing the electrode extension, gun angle, proper shielding gas flow, and deposition rate. Expected SLO Performance: 70.0

Produce proper forehand and backhand welds in fillet and groove joints in all positions that can pass the specified standard. Expected SLO Performance: 70.0

Outline

Course Outline

A. Safety
1. Burn classification
2. Face; eye; and ear protection
3. Respiratory protection
4. Ventilation
5. Special protective clothing
6. Fire protection
7. Electrical protection

B. GMAW Equipment Setup and Operation
1. Introduction
2. Metal Transfer
3. Filler Metal Specifications
4. Wire Melting and Deposition Rates
5. Welding Power Supplies
6. Molten Weld Pool Control
7. Equipment

C. Gas Metal Arc Welding
1. Setup
2. Gas Density and Flow Rates
3. Arc-voltage and Amperage Characteristics
4. Electrode Extension
5. Welding Gun Angle
6. Effects of Shielding Gas on Welding

Lab Outline

Students complete guided tutorials and perform practical exercises during lab.
A. Practices
1. Metal Preparation
2. Flat Position; 1G and 1F Positions; forehand and backhand
3. Vertical Up 3G and 3F Positions
4. Vertical Down 3G and 3F Positions
5. Horizontal 2G and 2F Positions; forehand and backhand
6. Overhead 4G and 4F Positions; forehand and backhand
7. Globular Metal Transfer 1G Position
8. Axial Spray