

Course Outline of Record Report

06/01/2026

BIOLD06AH : Form and Function in the Biological World - HONORS

General Information

Faculty Initiator:	Bruce Heyer
Attachments:	ReqAdv_G_BIOL_6AH_2027F_1.pdf Hybrid_BIOL_6AH_2027F.pdf
Course ID (CB01A and CB01B) :	BIOLD06AH
Short Course Title:	FORM/FUNC IN BIOL WRLD-HONORS
Course Title (CB02) :	Form and Function in the Biological World - HONORS
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000558477
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course introduces students to biology and scientific methods essential for all students beginning the biology major series. Students will explore the comparative structure and physiological processes of living organisms, with an emphasis on plants and animals. These concepts are key to understanding how life works and provide the basis for further investigations into all facets of the biological sciences. Because this is an honors course, students will complete extra assignments to gain a deeper insight into biological form and function.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - BIOLOGICAL SCIENCES

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a major preparation requirement in the discipline of Biology for at least one CSU or UC. This course also meets a general education requirement for De Anza and Cal-GETC. This course belongs on the Biological Sciences A.S. degree. This course provides honors students in the life sciences with essential foundations in biological forms and functions. This course is the honors version and as a result, includes more advanced assignments and assessments.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

Yes - don't forget to duplicate the revisions in the honors/non-honors course

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

BIOL F001B

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Course description uses welcoming, student-centered language and minimizes the use of impersonal, course-centered language. Methods of instruction include a variety of modalities to accommodate and engage diverse student bodies, advance equitable student outcomes, and promote the inclusion of all students. Lab activities can be modified to ensure that students with disabilities receive the same course content. Most course assignments provide students the opportunity to revise their work based on instructor feedback, peer discussion, and self-reflection. Both OER and LTC texts incorporate examples of diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students.

Course Development Options

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
- Pass/No Pass

Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Biological Sciences	Associate in Science (A.S.) Degree	Fall 2025
Biology 2.0 for Transfer (In Development)	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2027
Biology for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Child and Adolescent Development for Transfer (In Development)	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025 to Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026

Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G5X	De Anza GE Area 5 - Natural Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5B	Cal-GETC Area 5B - Biological Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	
C-ID	Area(s)	Status	Approval Date	End Date	-
BIOL	Biology	Approved	No value	No value	(BIOL D006A or BIOL D06AH) & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 130 S (BIOL D006A or BIOL D06AH) & BIOL D006B & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 135 S

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	6
Maximum Credit Units	6
Total Course In-Class (Contact) Hours	120
Total Course Out-of-Class Hours	96
Total Student Learning Hours	216

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education

☐ Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	6	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	72

NA	0
Total	120
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	
Methods of Instruction	Lecture and visual aids Discussion and problem solving performed in class In-class exploration of internet sites or biological simulations Collaborative learning and small group exercises Laboratory experience which involve students in directed exercises of observations and descriptions of biological specimens Laboratory discussion sessions and quizzes that evaluate the laboratory exercises Homework and extended projects Short, self-paced videos (with captions)
Assignments	A. Readings from required text, laboratory manual and supplemental sources. B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. C. Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. D. Conduct in depth literature research or an independent study project on a pre-approved topic in relevant biological sciences and prepare a written or electronic-media presentation of the results citing no less than five reputable primary sources.
Methods of Evaluation	Methods of Evaluation

Methods of Evaluation	A. Lecture exams that appraise comprehension and require synthesis and application of course material. B. Practical laboratory exams covering accurate identification of biological specimens and structures and precise explanation of their functions. C. Evaluation of collaborative exercises demonstrating progressive proficiency in seminal biological concepts. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit. E. Final lecture examination that requires students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course. F. Research paper and/or presentation are evaluated with a rubric based on organization, content, subject knowledge, critical analysis, visual aides, and presentation style.
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Essential Student Materials/Essential College Facilities Essential Student Materials: - None Essential College Facilities: - Multi-media lecture and lab rooms; biology laboratory with necessary equipment (such as microscopes, slides, relevant specimens, etc.)

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Urry, L.A., et al	Campbell Biology	Menlo Park, CA: Pearson Education	13th ed., 2027	
Instructor Selected/Designed Laboratory Manual				
Clark, M.A., Douglas, M., Choi, J.	Biology 2e	OpenStax	2026 (web)	

Suggested Reading List No Value
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Learning Outcomes
Course Objectives

Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community.

Reconstruct the historical development of systematics and the classification of living organisms.

Articulate the characteristics and challenges shared by all living organisms.

Introduce the cell as the fundamental unit of life and differentiate its basic features.

Examine the structure, physiological processes and diversity of protists.

Examine the structure, physiological processes and diversity of Kingdom Fungi.

Examine the structure, physiological processes and diversity of Kingdom Plantae.

Examine the structure, physiological processes and diversity of Kingdom Animalia.

Research a current topic in comparative biology or one or more relevant biological concepts or processes.

CSLOs

Analyze and compare the process of homeostasis as applied to common physiological processes across higher taxonomy.

Expected SLO Performance: 0.0

Develop observational skills in the context of scientific methodologies.

Expected SLO Performance: 0.0

Contrast the Linnaean traditional phylogenetic and cladistic processes of taxonomy.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community.
 1. Examine the use of scientific method and the development of testable hypotheses, as applied to investigations in biology.
 - a. Apply inductive and deductive reasoning.
 - b. Explain the steps of the hypothetico-deductive method.
 - c. Use the scientific method as a tool of inquiry in and beyond the laboratory.
 2. Discuss the relative merits of the peer-review process distinguishing scientific journals from popular media. Discriminate between scientific and philosophical theories; and between science and story-telling.
 3. Demonstrate the collaboration among the global scientific community driving the expansion of scientific knowledge.
 4. Expose the extrapolation of scientific concepts to justify socio-political practices. Such as examining the derivation of eugenic ideals to justify the oppression, exploitation, sterilization, and attempted eradication of indigenous or minority peoples and socially marginalized individuals.
- B. Reconstruct the historical development of systematics and the classification of living organisms.

1. Discuss the role of Carolus Linnaeus in developing the discipline of taxonomy.
 - a. Create a taxonomic hierarchy to classify organisms using relative similarities in body form.
 - b. Categorize the taxonomic levels used in Linnaean hierarchy.
 - c. Demonstrate binomial nomenclature to correctly cite the universal scientific name of a species.
 2. Inspect the crucial modification of the Linnaean hierarchy to a 5-kingdom model based upon contrasts in cell form and function.
 3. Explain the rationale behind the modern 3-domain/6-kingdom model of classification based upon contrasts in molecular structure distinguishing archaea, bacteria, and eukarya.
 4. Compare the criteria used in traditional taxonomy to those used in cladistics.
- C. Articulate the characteristics and challenges shared by all living organisms.
1. Summarize the characteristics of life.
 2. Define homeostasis using illustrative examples.
 3. Discuss evolution as a foundation for diversity of life.
- D. Introduce the cell as the fundamental unit of life and differentiate its basic features.
1. Inspect the characteristics and requirements common to all cells.
 2. Compare prokaryotic cells and eukaryotic cells.
 3. Summarize eukaryotic cell structure and the general functions of organelles.
 4. Examine the limits to cell size and advantages of multicellularity.
 5. Describe water and solute movements across selectively permeable cell membranes.
 6. Examine and describe cell division (mitosis and meiosis) and cell cycles, emphasizing the relevance to life cycles.
- E. Examine the structure, physiological processes and diversity of protists.
1. Summarize the characteristics and changing definitions of protists.
 2. Discuss the polyphyletic nature of protists and the possible relationships between groups of protists and the rest of the eukaryotes.
 3. Expand on the function of organelles allowing single-celled organisms to accomplish complex biological functions.
- F. Examine the structure, physiological processes and diversity of Kingdom Fungi.
1. Summarize the characteristics of fungi.
 2. Discuss the correlation of modified cell cycles to different fungal life cycles.
 3. Inspect the ecological importance of fungi and critical symbioses with plants.
- G. Examine the structure, physiological processes and diversity of Kingdom Plantae.
1. Evaluate the evolution of plant groups to a terrestrial habitat.
 - a. Contrast an aquatic environment to a terrestrial one in terms of plant adaptations.
 - b. Compare the four main plant groups to illustrate the evolutionary process of adapting to land.
 2. Explore plant reproduction and life cycles while analyzing the evolutionary processes that shaped plant reproductive strategies.
 - a. Analyze alternation of generations in the life cycle of plants.
 - b. Compare gametophytes and sporophytes of the four terrestrial plant groups (bryophytes, pterophytes, gymnosperms and angiosperms) in terms of their role in the plant life cycle with emphasis on the consistency of alternation of generations.
 - c. Microscopically examine the gamete producing and spore producing structures of the four terrestrial plant groups.
 3. Investigate plant growth and development.
 - a. Describe meristematic tissues and their role.
 - b. Inspect the functions and structures of plant cells including the ground, vascular and dermal tissues and the cells that comprise them.
 - c. Compare, both microscopically and macroscopically, the roots, stems and flowers of monocots and dicots.
 - d. Compare, both microscopically and macroscopically, primary and secondary growth in vascular plants.
 4. Examine plant exchange and transport processes and structures.
 - a. Explore how plants obtain nutrients from the environment.
 - b. Discuss the importance of mycorrhizae and nitrogen fixing bacteria in plant nutrition and evolution.
 - c. Analyze how plants exchange gases with the environment while maintaining water balance.
 - d. Describe passive movement and active transport (proton pumps and co-transport) of solutes in plant cells, using illustrative examples.
 - e. Evaluate the movement of water and dissolved solutes from roots to shoots including cohesion, adhesion and transpiration.
 - f. Discuss the regulation of stomatal opening.
 - g. Describe the movement of water and sugars laterally through a stem or root.
 - h. Examine the movement of sugars from source to sink.
- H. Examine the structure, physiological processes and diversity of Kingdom Animalia.
1. Survey the basic development of animals and the evolutionary trends in animal body plans.
 - a. Discuss cell and tissue specialization in embryonic development.
 - b. Compare the development of an acoelom, pseudocoelom and true coelom.
 - c. Identify symmetry, cephalization, complexity of digestive tracts and segmentation as variations on animal body plans.
 2. Distinguish the various tissues that comprise the animal body.
 3. Use illustrative examples of animal phyla (such as Porifera, Cnidaria, Platyhelminthes, Nematoda, Mollusca, Annelida, Arthropoda, Echinodermata, Chordata) to illustrate animal body plans, tissues, animal systems, modes of locomotion and lifecycles.
 4. Explore animal nutrition.
 - a. Identify various mechanisms animals use to obtain food.
 - b. Compare intracellular and extracellular digestion.
 - c. Compare incomplete and complete digestive tracts in terms of form and function.

- d. Inspect the vertebrate digestive tract structure and function, using examples such as humans, ruminants and birds.
- e. Contrast the specializations of digestive systems in herbivores versus carnivores.
5. Explore gas exchange in animals.
 - a. Assess the limits of diffusion on body size and metabolic rates.
 - b. Discuss the functions of respiratory systems in animals and discuss how these functions are accomplished in animals without a respiratory system.
 - c. Evaluate the characteristics common to all respiratory surfaces.
 - d. Contrast terrestrial and aquatic habitats and their effects on the evolution of respiratory systems in animals.
 - e. Compare gills and lungs in terms of structure and function using examples such as fish, birds and mammals.
 - f. Explain the role of hemoglobin and other respiratory pigments.
 - g. Analyze the partial pressures of oxygen and carbon dioxide in the alveoli, capillaries and tissues.
 - h. Formulate Fick's Law and the diffusion of gases in the respiratory systems.
 - i. Use gas exchange equations to calculate rates of oxygen and carbon dioxide exchange for organisms in various situations.
6. Examine circulation in animals.
 - a. Discuss the functions of circulatory systems in animals and discuss how these functions are accomplished in animals without a circulatory system.
 - b. Compare and contrast an open circulatory system to a closed circulatory system using illustrative examples.
 - c. Inspect the structure and function of the vertebrate circulatory systems including the heart, blood vessels and blood.
 - d. Evaluate four chambered, three chambered and two chambered hearts.
7. Explore osmoregulation and excretion in animals.
 - a. Discuss the functions of excretory systems in animals and discuss how these functions are accomplished in animals without an excretory system.
 - b. Contrast osmoconformers and osmoregulators.
 - c. Distinguish the types of nitrogenous wastes and discuss the relative physiological advantages of each type.
 - d. Describe and compare various excretory systems of invertebrates.
 - e. Inspect various excretory systems of vertebrates, with emphasis on the mammalian system.
 - f. Analyze nervous system and hormonal control of osmoregulation and excretion.
8. Explore thermoregulation in animals.
 - a. Contrast ectotherms and endotherms.
 - b. Contrast poikilotherms and homeotherms.
 - c. Investigate and compare mechanisms used in the maintenance of body temperature including physiological and behavioral adjustments.
 - d. Evaluate evolutionary trends and adaptations in animals inhabiting severely hot or cold environments.
9. Explore reproduction in animals.
 - a. Compare asexual and sexual reproduction.
 - b. Compare monoecious and dioecious reproductive systems.
 - c. Distinguish various methods of gamete transfer.
 - d. Evaluate oviparous, ovoviviparous, and viviparous reproduction.
 - e. Discuss hormonal and environmental controls of reproductive cycles.
- I. Research a current topic in comparative biology or one or more relevant biological concepts or processes.
 1. Evaluate and synthesize the current work of multiple agencies, institutions or researchers.
 2. Develop written and oral communication skills and/or electronic media for the presentation of a current topic in biological form and function or systematics.

Lab Outline

- A. Scientific methodology and experimental design
- B. Life cycles and systematics of plants
- C. Plant tissues and vascular function
- D. Plant reproductive strategies and anatomy
- E. Structure and life cycles of fungi
- F. Animal tissues and development
- G. Form and function of selected animal phyla, such as porifera, cnidaria, platyhelminthes, nematoda, annelida, mollusca, arthropoda, echinodermata, and/or chordata
- H. Vertebrate structure and variation

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

CHEM D001A or CHEM D01AH or CHEM D025. with a grade of C or better; or satisfactory score on the Chemistry Placement Exam

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Not open to students with credit in the non-Honors related course.)

- (Admission into this course requires consent of the Honors Program Coordinator.)

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Objective A: Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. All of the objectives of BIOL-6A require evaluation and synthesis of facts from various sources that are culturally and rhetorically diverse.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Assignments D: Conduct in depth literature research or an independent study project on a pre-approved topic in relevant biological sciences and prepare a written or electronic-media presentation of the results citing no less than five reputable primary sources. Methods of Evaluation F: Research paper and/or presentation are evaluated with a rubric based on organization, content, subject knowledge, critical analysis, visual aides, and presentation style.

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

Assignments D: Conduct in depth literature research or an independent study project on a pre-approved topic in relevant biological sciences and prepare a written or electronic-media presentation of the results citing no less than five reputable primary sources. Methods of Evaluation F: Research paper and/or presentation are evaluated with a rubric based on organization, content, subject knowledge, critical analysis, visual aides, and presentation style.

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignments B: Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. Assignments C: Collaborative exercises developing fluency in seminal concepts such as scientific methodology or

systematics. Assignments D: Conduct in depth literature research or an independent study project on a pre-approved topic in relevant biological sciences and prepare a written or electronic-media presentation of the results citing no less than five reputable primary sources. Methods of Evaluation F: Research paper and/or presentation are evaluated with a rubric based on organization, content, subject knowledge, critical analysis, visual aides, and presentation style.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Objective A: Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. Objective B: Reconstruct the historical development of systematics and the classification of living organisms. All of the objectives of BIOL-6A require evaluation and synthesis of facts from various sources that include multiplicity and ambiguity of perspectives. Assignments C: Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. Assignments D: Conduct in depth literature research or an independent study project on a pre-approved topic in relevant biological sciences and prepare a written or electronic-media presentation of the results citing no less than five reputable primary sources. Methods of Evaluation E: Final lecture examination that requires students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value
Objective 3: Explore functions.
No Value
Objective 4: Develop linear function models.
No Value
Objective 5: Use systems of two linear equations to solve real world problems.
No Value
Objective 6: Use linear inequalities in one variable to solve real world problems.
No Value
Objective 7: Examine exponential expressions and develop exponential function models.
No Value
Objective 8: Examine logarithmic expressions and develop logarithmic function models.
No Value
Objective 9: Develop quadratic function models to solve problems.
No Value
Objective 10: Investigate the characteristics of rational expressions.
No Value
Objective 11: Develop skills to work with radical expressions.
No Value

E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

Admission into this course requires consent of the Honors Program Coordinator.

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. B. Reconstruct the historical development of systematics and the classification of living organisms. C. Articulate the characteristics and challenges shared by all living organisms. C1. Summarize the characteristics of life. C2. Define homeostasis using illustrative examples. C3. Discuss evolution as a foundation for diversity of life. D. Introduce the cell as the fundamental unit of life and differentiate its basic features.

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. A1. Examine the use of scientific method and the development of testable hypotheses, as applied to investigations in biology.

a. Apply inductive and deductive reasoning. b. Explain the steps of the hypothetico-deductive method. c. Use the scientific method as a tool of inquiry in and beyond the laboratory. A2. Discuss the relative merits of the peer-review process distinguishing scientific journals from popular media. Discriminate between scientific and philosophical theories; and between science and story-telling. Methods of Instruction: Discussion and problem solving performed in class. Collaborative learning and small group exercises. Laboratory discussion sessions and quizzes that evaluate the laboratory exercises Assignments B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. C. Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. Methods of Evaluation C. Evaluation of collaborative exercises demonstrating progressive proficiency in seminal biological concepts. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit.

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Assignments B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. Methods of Evaluation A. Lecture exams that appraise comprehension and require synthesis and application of course material. B. Practical laboratory exams covering accurate identification of biological specimens and structures and precise explanation of their functions. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit. E. Final lecture examination that requires students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course. Lab Outline A. Scientific methodology and experimental design

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. A3. Demonstrate the collaboration among the global scientific community driving the expansion of scientific knowledge. A4. Expose the extrapolation of scientific concepts to justify socio-political practices. Specifically examine the derivation of eugenic ideals to justify the oppression, exploitation, sterilization, and attempted eradication of indigenous or minority peoples and socially marginalized individuals. B. Reconstruct the historical development of systematics and the classification of living organisms.

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. B. Reconstruct the historical development of systematics and the classification of living organisms.

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A4. Expose the extrapolation of scientific concepts to justify socio-political practices. Specifically examine the derivation of eugenic ideals to justify the oppression, exploitation, sterilization, and attempted eradication of indigenous or minority peoples and socially marginalized individuals. Methods of Instruction: Laboratory experience which involve students in directed exercises of observations and descriptions of biological specimens. Assignments A. Readings from required text, laboratory manual and supplemental sources. B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. C. Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. Methods of Evaluation B. Practical laboratory exams covering accurate identification of biological specimens and structures and precise explanation of their functions. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit.

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

					Initiator - Indicate "Y" When Completed or Initiator's Response
Date	Tab	Part - Field	Type of Edit	Edit	
4/9/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y. OER option added
4/9/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement. Thanks for this assignment list! Consider minor revisions to clarify what "collaborative exercises" could mean (for example/such as options)	Y
4/9/2026	Specifications	Assignments	Suggested	Also, do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (2) Encourage students to connect course content to their own life, background, and experiences; (3) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, let me know in the Initiator response box. Consider revisions to clarify what type of evaluation will be used for "collaborative exercises".	N/A
4/9/2026	Specifications	Methods of Evaluation	Suggested	Also, For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.	N/A

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/21/26	Matrix H	Objective 2	Required	This field should list the limitation on enrollment "Admission into this course requires consent of the Honors Program Coordinator."	Y

Stage 7: Dean of Online Learning

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
5/2/26	Basic Course Information	Mode of Delivery	Required	Please update your mode of delivery to include Hybrid since you attached a Hybrid Course request as an attachment.	Y

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO**Sort ID (00 < 10; 0 < 100)**

BIOL 006AH

Course Status

Non-substantial

Course Characteristics

- Honors

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/01/2026

BIOLD006A : Form and Function in the Biological World

General Information

Faculty Initiator:	Bruce Heyer
Attachments:	ReqAdv_G_BIOL_6A_2027F_1.pdf Hybrid_BIOL_6A_2027F.pdf
Course ID (CB01A and CB01B) :	BIOLD006A
Short Course Title:	FORM/FUNCT IN THE BIOLGCL WRLD
Course Title (CB02) :	Form and Function in the Biological World
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	No
Course Control Number:	CCC000276872
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2020
Course Description:	This course introduces students to biology and scientific methods essential for all students beginning the biology major series. Students will explore the comparative structure and physiological processes of living organisms, with an emphasis on plants and animals. These concepts are key to understanding how life works and provide the basis for further investigations into all facets of the biological sciences.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Hybrid
Faculty Initiator:	Bruce Heyer
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - BIOLOGICAL SCIENCES

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a major preparation requirement in the discipline of Biology for at least one CSU or UC. This course also meets a general education requirement for De Anza and Cal-GETC. This course belongs on the Biological Sciences AS degree. This course provides students in the life sciences with essential foundations in biological forms and functions.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

Yes - don't forget to duplicate the revisions in the honors/non-honors course

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

BIOL F001B

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Course description uses welcoming, student-centered language and minimizes the use of impersonal, course-centered language. Methods of instruction include a variety of modalities to accommodate and engage diverse student bodies, advance equitable student outcomes, and promote the inclusion of all students. Lab activities can be modified to ensure that students with disabilities receive the same course content. Most course assignments provide students the opportunity to revise their work based on instructor feedback, peer discussion, and self-reflection. Both OER and LTC texts incorporate examples of diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students.

Course Development Options

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
- Pass/No Pass

Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Biological Sciences	Associate in Science (A.S.) Degree	Fall 2025
Biology 2.0 for Transfer (In Development)	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2027
Biology for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Child and Adolescent Development for Transfer (In Development)	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025 to Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026

Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G5X	De Anza GE Area 5 - Natural Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5B	Cal-GETC Area 5B - Biological Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	
C-ID	Area(s)	Status	Approval Date	End Date	-
BIOL	Biology	Approved	No value	No value	(BIOL D006A or BIOL D06AH) & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 130 S (BIOL D006A or BIOL D06AH) & BIOL D006B & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 135 S

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	6
Maximum Credit Units	6
Total Course In-Class (Contact) Hours	120
Total Course Out-of-Class Hours	96
Total Student Learning Hours	216

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education

☐ Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	6	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	72

NA	0
Total	120
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids Discussion and problem solving performed in class In-class exploration of internet sites or biological simulations Collaborative learning and small group exercises Laboratory experience which involve students in directed exercises of observations and descriptions of biological specimens Laboratory discussion sessions and quizzes that evaluate the laboratory exercises Homework and extended projects Short, self-paced videos (with captions)
Methods of Instruction	
Methods of Instruction	No value
Assignments	
A. Readings from required text, laboratory manual and supplemental sources.	
B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions.	
C. Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics.	

Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Lecture exams that appraise comprehension and require synthesis and application of course material. B. Practical laboratory exams covering accurate identification of biological specimens and structures and precise explanation of their functions. C. Evaluation of collaborative exercises demonstrating progressive proficiency in seminal biological concepts. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses following peer and instructor feedback for credit. E. Final lecture examination that requires students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course.
	No value

Essential Student Materials/Essential College Facilities
Essential Student Materials: None.
Essential College Facilities: Multi-media lecture and lab rooms; biology laboratory with necessary equipment (such as microscopes, slides, relevant specimens, etc.)

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Urry, L.A., et al, "Campbell Biology," 13th ed. Menlo Park, CA: Pearson Education, 2027.				
Instructor Selected/Designed Laboratory Manual				
Clark, M.A., Douglas, M., Choi, J.	Biology 2e	OpenStax	2026 (web)	

Suggested Reading List
No Value

Learning Outcomes
Course Objectives

Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community.

Reconstruct the historical development of systematics and the classification of living organisms.

Articulate the characteristics and challenges shared by all living organisms.

Introduce the cell as the fundamental unit of life and differentiate its basic features.

Examine the structure, physiological processes and diversity of protists.

Examine the structure, physiological processes and diversity of Kingdom Fungi.

Examine the structure, physiological processes and diversity of Kingdom Plantae.

Examine the structure, physiological processes and diversity of Kingdom Animalia.

CSLOs

Analyze and compare the process of homeostasis as applied to common physiological processes across higher taxonomy.

Expected SLO Performance: 0.0

Develop observational skills in the context of scientific methodologies.

Expected SLO Performance: 0.0

Contrast the Linnaean traditional phylogenetic and cladistic processes of taxonomy.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community.
 1. Examine the use of scientific method and the development of testable hypotheses, as applied to investigations in biology.
 - a. Apply inductive and deductive reasoning.
 - b. Explain the steps of the hypothetico-deductive method.
 - c. Use the scientific method as a tool of inquiry in and beyond the laboratory.
 2. Discuss the relative merits of the peer-review process distinguishing scientific journals from popular media. Discriminate between scientific and philosophical theories; and between science and story-telling.
 3. Demonstrate the collaboration among the global scientific community driving the expansion of scientific knowledge.
 4. Expose the extrapolation of scientific concepts to justify socio-political practices. Such as examining the derivation of eugenic ideals to justify the oppression, exploitation, sterilization, and attempted eradication of indigenous or minority peoples and socially marginalized individuals.
- B. Reconstruct the historical development of systematics and the classification of living organisms.
 1. Discuss the role of Carolus Linnaeus in developing the discipline of taxonomy.
 - a. Create a taxonomic hierarchy to classify organisms using relative similarities in body form.
 - b. Categorize the taxonomic levels used in Linnaean hierarchy.

- c. Demonstrate binomial nomenclature to correctly cite the universal scientific name of a species.
2. Inspect the crucial modification of the Linnaean hierarchy to a 5-kingdom model based upon contrasts in cell form and function.
3. Explain the rationale behind the modern 3-domain/6-kingdom model of classification based upon contrasts in molecular structure distinguishing archaea, bacteria, and eukarya.
4. Compare the criteria used in traditional taxonomy to those used in cladistics.
- C. Articulate the characteristics and challenges shared by all living organisms.
 1. Summarize the characteristics of life.
 2. Define homeostasis using illustrative examples.
 3. Discuss evolution as a foundation for diversity of life.
- D. Introduce the cell as the fundamental unit of life and differentiate its basic features.
 1. Inspect the characteristics and requirements common to all cells.
 2. Compare prokaryotic cells and eukaryotic cells.
 3. Summarize eukaryotic cell structure and the general functions of organelles.
 4. Examine the limits to cell size and advantages of multicellularity.
 5. Describe water and solute movements across selectively permeable cell membranes.
 6. Examine and describe cell division (mitosis and meiosis) and cell cycles, emphasizing the relevance to life cycles.
- E. Examine the structure, physiological processes and diversity of protists.
 1. Summarize the characteristics and changing definitions of protists.
 2. Discuss the polyphyletic nature of protists and the possible relationships between groups of protists and the rest of the eukaryotes.
 3. Expand on the function of organelles allowing single-celled organisms to accomplish complex biological functions.
- F. Examine the structure, physiological processes and diversity of Kingdom Fungi.
 1. Summarize the characteristics of fungi.
 2. Discuss the correlation of modified cell cycles to different fungal life cycles.
 3. Inspect the ecological importance of fungi and critical symbioses with plants.
- G. Examine the structure, physiological processes and diversity of Kingdom Plantae.
 1. Evaluate the evolution of plant groups to a terrestrial habitat.
 - a. Contrast an aquatic environment to a terrestrial one in terms of plant adaptations.
 - b. Compare the four main plant groups to illustrate the evolutionary process of adapting to land.
 2. Explore plant reproduction and life cycles while analyzing the evolutionary processes that shaped plant reproductive strategies.
 - a. Analyze alternation of generations in the life cycle of plants.
 - b. Compare gametophytes and sporophytes of the four terrestrial plant groups (bryophytes, pterophytes, gymnosperms and angiosperms) in terms of their role in the plant life cycle with emphasis on the consistency of alternation of generations.
 - c. Microscopically examine the gamete producing and spore producing structures of the four terrestrial plant groups.
 3. Investigate plant growth and development.
 - a. Describe meristematic tissues and their role.
 - b. Inspect the functions and structures of plant cells including the ground, vascular and dermal tissues and the cells that comprise them.
 - c. Compare, both microscopically and macroscopically, the roots, stems and flowers of monocots and dicots.
 - d. Compare, both microscopically and macroscopically, primary and secondary growth in vascular plants.
 4. Examine plant exchange and transport processes and structures.
 - a. Explore how plants obtain nutrients from the environment.
 - b. Discuss the importance of mycorrhizae and nitrogen fixing bacteria in plant nutrition and evolution.
 - c. Analyze how plants exchange gases with the environment while maintaining water balance.
 - d. Describe passive movement and active transport (proton pumps and co-transport) of solutes in plant cells, using illustrative examples.
 - e. Evaluate the movement of water and dissolved solutes from roots to shoots including cohesion, adhesion and transpiration.
 - f. Discuss the regulation of stomatal opening.
 - g. Describe the movement of water and sugars laterally through a stem or root.
 - h. Examine the movement of sugars from source to sink.
- H. Examine the structure, physiological processes and diversity of Kingdom Animalia.
 1. Survey the basic development of animals and the evolutionary trends in animal body plans.
 - a. Discuss cell and tissue specialization in embryonic development.
 - b. Compare the development of an acoelom, pseudocoelom and true coelom.
 - c. Identify symmetry, cephalization, complexity of digestive tracts and segmentation as variations on animal body plans.
 2. Distinguish the various tissues that comprise the animal body.
 3. Use illustrative examples of animal phyla (such as Porifera, Cnidaria, Platyhelminthes, Nematoda, Mollusca, Annelida, Arthropoda, Echinodermata, Chordata) to illustrate animal body plans, tissues, animal systems, modes of locomotion and lifecycles.
 4. Explore animal nutrition.
 - a. Identify various mechanisms animals use to obtain food.
 - b. Compare intracellular and extracellular digestion.
 - c. Compare incomplete and complete digestive tracts in terms of form and function.
 - d. Inspect the vertebrate digestive tract structure and function, using examples such as humans, ruminants and birds.
 - e. Contrast the specializations of digestive systems in herbivores versus carnivores.
 5. Explore gas exchange in animals.

- a. Assess the limits of diffusion on body size and metabolic rates.
 - b. Discuss the functions of respiratory systems in animals and discuss how these functions are accomplished in animals without a respiratory system.
 - c. Evaluate the characteristics common to all respiratory surfaces.
 - d. Contrast terrestrial and aquatic habitats and their effects on the evolution of respiratory systems in animals.
 - e. Compare gills and lungs in terms of structure and function using examples such as fish, birds and mammals.
 - f. Explain the role of hemoglobin and other respiratory pigments.
 - g. Analyze the partial pressures of oxygen and carbon dioxide in the alveoli, capillaries and tissues.
 - h. Formulate Fick's Law and the diffusion of gases in the respiratory systems.
 - i. Use gas exchange equations to calculate rates of oxygen and carbon dioxide exchange for organisms in various situations.
6. Examine circulation in animals.
- a. Discuss the functions of circulatory systems in animals and discuss how these functions are accomplished in animals without a circulatory system.
 - b. Compare and contrast an open circulatory system to a closed circulatory system using illustrative examples.
 - c. Inspect the structure and function of the vertebrate circulatory systems including the heart, blood vessels and blood.
 - d. Evaluate four chambered, three chambered and two chambered hearts.
7. Explore osmoregulation and excretion in animals.
- a. Discuss the functions of excretory systems in animals and discuss how these functions are accomplished in animals without an excretory system.
 - b. Contrast osmoconformers and osmoregulators.
 - c. Distinguish the types of nitrogenous wastes and discuss the relative physiological advantages of each type.
 - d. Describe and compare various excretory systems of invertebrates.
 - e. Inspect various excretory systems of vertebrates, with emphasis on the mammalian system.
 - f. Analyze nervous system and hormonal control of osmoregulation and excretion.
8. Explore thermoregulation in animals.
- a. Contrast ectotherms and endotherms.
 - b. Contrast poikilotherms and homeotherms.
 - c. Investigate and compare mechanisms used in the maintenance of body temperature including physiological and behavioral adjustments.
 - d. Evaluate evolutionary trends and adaptations in animals inhabiting severely hot or cold environments.
9. Explore reproduction in animals.
- a. Compare asexual and sexual reproduction.
 - b. Compare monoecious and dioecious reproductive systems.
 - c. Distinguish various methods of gamete transfer.
 - d. Evaluate oviparous, ovoviviparous, and viviparous reproduction.
 - e. Discuss hormonal and environmental controls of reproductive cycles.

Lab Outline

- A. Scientific methodology and experimental design
- B. Life cycles and systematics of plants
- C. Plant tissues and vascular function
- D. Plant reproductive strategies and anatomy
- E. Structure and life cycles of fungi
- F. Animal tissues and development
- G. Form and function of selected animal phyla, such as porifera, cnidaria, platyhelminthes, nematoda, annelida, mollusca, arthropoda, echinodermata, and/or chordata
- H. Vertebrate structure and variation

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

CHEM D001A or CHEM D01AH or CHEM D025. with a grade of C or better; or satisfactory score on the Chemistry Placement Exam

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Not open to students with credit in the Honors Program related course.)

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

ENGL C1000 or ENGL C1000A (Formerly EWRT D001A or EWRT D001A) or ESL D005

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Objective A: Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. All of the objectives of BIOL-6A require evaluation and synthesis of facts from various sources that are culturally and rhetorically diverse.

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignments B: Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. Assignments C: Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Objective A: Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. Objective B: Reconstruct the historical development of systematics and the classification of living organisms. All of the objectives of BIOL-6A require evaluation and synthesis of facts from various sources that include multiplicity and ambiguity of perspectives. Assignments C: Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. Methods of Evaluation D: Final lecture examination that requires students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. B. Reconstruct the historical development of systematics and the classification of living organisms. C. Articulate the characteristics and challenges shared by all living organisms. C1. Summarize the characteristics of life. C2. Define homeostasis using illustrative examples. C3. Discuss evolution as a foundation for diversity of life. D. Introduce the cell as the fundamental unit of life and differentiate its basic features.

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. A1. Examine the use of scientific method and the development of testable hypotheses, as applied to investigations in biology. a. Apply inductive and deductive reasoning. b. Explain the steps of the hypothetico-deductive method. c. Use the scientific method as a tool of inquiry in and beyond the laboratory. A2. Discuss the relative merits of the peer-review process distinguishing scientific journals from popular media. Discriminate between scientific and philosophical theories; and between science and story-telling. Methods of Instruction: Discussion and problem solving performed in class. Collaborative learning and small group exercises. Laboratory discussion sessions and quizzes that evaluate the laboratory exercises Assignments B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. C. Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. Methods of Evaluation C. Evaluation of collaborative exercises demonstrating progressive proficiency in seminal biological concepts. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit.

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Assignments B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. Methods of Evaluation A. Lecture exams that appraise comprehension and require synthesis and application of course material. B. Practical laboratory exams covering accurate identification of biological specimens and structures and precise explanation of their functions. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit. E. Final lecture examination that requires students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course. Lab Outline A. Scientific methodology and experimental design

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. A3. Demonstrate the collaboration among the global scientific community driving the expansion of scientific knowledge. A4. Expose the extrapolation of scientific concepts to justify socio-political practices. Specifically examine the derivation of eugenic ideals to justify the oppression, exploitation, sterilization, and attempted eradication of indigenous or minority peoples and socially marginalized individuals. B. Reconstruct the historical development of systematics and the classification of living organisms.

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Explore science as a process and assess its role in building a reliable body of knowledge accessible to the global community. B. Reconstruct the historical development of systematics and the classification of living organisms.

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A4. Expose the extrapolation of scientific concepts to justify socio-political practices. Specifically examine the derivation of eugenic ideals to justify the oppression, exploitation, sterilization, and attempted eradication of indigenous or minority peoples and socially marginalized individuals. Methods of Instruction: Laboratory experience which involve students in directed exercises of observations and descriptions of biological specimens. Assignments A. Readings from required text, laboratory manual and supplemental sources. B. Laboratory exercises including observations, descriptions and critical analysis of comparative anatomical structures and physiological functions. C. Collaborative exercises developing fluency in seminal concepts such as scientific methodology or systematics. Methods of Evaluation B. Practical laboratory exams covering accurate identification of biological specimens and structures and precise explanation of their functions. D. Regular lab quizzes promote implementation of concepts and language presented in lab exercises and reinforce specific application to biological forms and functions. Most quizzes include group peer discussion and revision of quiz responses for credit.

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
3/26/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y. OER option added [c.f., comment]
3/26/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement. Thanks for this assignment list! Consider minor revisions to clarify what "collaborative exercises" could mean (for example/such as options)	Y
3/26/2026	Specifications	Assignments	Suggested	Also, do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (2) Encourage students to connect course content to their own life, background, and experiences; (3) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, let me know in the Initiator response box. Consider revisions to clarify what type of evaluation will be used for "collaborative exercises".	N/A
3/26/2026	Specifications	Methods of Evaluation	Suggested	Also, For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.	N/A

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

No Value

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO**Sort ID (00 < 10; 0 < 100)**

BIOL 006A

Course Status

Non-substantial

Course Characteristics

- NA

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/01/2026

BIOLD006B : Cell and Molecular Biology

General Information

Faculty Initiator:	- Lianna Wong - Kang'a, Simon
Attachments:	ReqAdv_G_BIOL_6B_2027F_1.pdf Hybrid_BIOL_6B_2027F.pdf
Course ID (CB01A and CB01B) :	BIOLD006B
Short Course Title:	CELL & MOLECULAR BIOLOGY
Course Title (CB02) :	Cell and Molecular Biology
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000090629
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	In this course, students will investigate the fundamental principles of cell and molecular biology. They will examine the structure and function of cells, roles of biological molecules (proteins, DNA, lipids, and carbohydrates), how cells capture, transform and use energy (bioenergetics), how genetic information is stored, expressed, and regulated (molecular genetics), and how cells divide and reproduce (cell proliferation). In the laboratory students will conduct extensive hands-on experiments by applying molecular biology techniques that mirror modern biological research. Students will develop core skills in scientific inquiry, including experiment design, data collection, data analysis and interpretation, and effective communication of scientific findings.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - BIOLOGICAL SCIENCES

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course will prepare students in the life sciences for transfer to at least one California State University (CSU) or University of California (UC) campus, where it satisfies a major preparation requirement in Biology. This course also fulfills a requirement for the AS (Associate of Science) degree in Biological Sciences. This course meets a general education for the California General Education Transfer Curriculum (Cal-GETC).

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

BIOL F001A

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course uses welcoming, student-centered language and inclusive instructional practices to support diverse learners and promote equitable outcomes. Instruction incorporates multiple modalities, accessible lab modifications, and low-cost/OER materials that reflect diverse perspectives and current issues. Assignments emphasize revision, feedback, and student choice, allowing learners to connect content to their experiences and demonstrate understanding in multiple ways. Collaborative learning and research projects foster inclusion and engagement across diverse backgrounds. Course content integrates real-world issues, including inequities and social impacts relevant to the discipline.

Course Development Options

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
- Pass/No Pass

Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Biological Sciences	Associate in Science (A.S.) Degree	Fall 2025
Biology 2.0 for Transfer (In Development)	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2027
Biology for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025 to Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026

Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5B	Cal-GETC Area 5B - Biological Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	
C-ID	Area(s)	Status	Approval Date	End Date	-
BIOL	Biology	Approved	No value	No value	- C-ID BIOL 190 (BIOL D006A or BIOL D06AH) & BIOL D006B & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 135 S

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units

6

Maximum Credit Units

6

Total Course In-Class (Contact) Hours

120

Total Course Out-of-Class Hours

96

Total Student Learning Hours

216

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education Status (CB10)

☐

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	6	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	72
NA	0
Total	120
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Instructor-led lectures supported by accessible materials, including slides, captioned recorded videos, molecular models, animations, and visuals to support diverse learning needs and language backgrounds.

Structured opportunities for students to apply course concepts through guided discussions and problem-solving activities, completed individually and in collaborative groups.

Course discussions that value multiple perspectives, diverse approaches to reasoning, and respectful dialogue.

Online discussions using Canvas to support flexible participation and multiple ways for students to engage with course content.

Small-group and collaborative learning activities that promote peer explanation, shared problem-solving, and development of scientific thinking skills.

Collaborative projects that may include community-relevant or socially meaningful topics, allowing students to connect biological concepts to real-world issues.

Instructional activities that include examination of historically underrepresented scientific contributions, ethically problematic uses of science, and the social and historical contexts that shape scientific knowledge.

Hands-on laboratory investigations emphasizing experimental design, data collection, analysis, interpretation, and scientific communication through written lab reports.

Laboratory discussion sessions focused on interpreting results, evaluating experimental design, and connecting laboratory work to course concepts.

Clear written laboratory instructions, with lab partners, modified activities, or alternative participation formats available to ensure accessibility for students with disabilities.

Use of quizzes and formative assessments to support learning and monitor progress, with rubrics and sample questions provided to clarify expectations.

Use of computer simulations and virtual tools to support flexible, accessible learning of molecular biology concepts and techniques, with opportunities for student feedback and reflection.

Assignments

- A. Students will complete readings from the required textbook and supplemental sources, which may include open educational resources (OER), peer-reviewed articles, and materials that center the contributions of scientists from historically underrepresented communities. OER alternatives will be identified where available to eliminate cost as a barrier. At least one assignment will invite students to connect course content, for example, PCR technology, cancer biology, or gene expression, to a real-world issue affecting a specific community, such as disparities in cancer screening access, environmental toxin exposure in frontline communities, or the use of biotechnology in under-resourced healthcare settings. Students may choose a community relevant to their own background or lived experience.
- B. Written laboratory reports, problem sets, or other assignments including results from laboratory experiments and critical analysis of data. Students will complete laboratory reports, problem sets, or equivalent assignments documenting experimental results and critically analyzing data.
- C. Students will use oral communicate within each laboratory group to organize their lab experiments, assign responsibilities to lab partners, discuss experimental results, discuss sources of errors and their resolution, and to discuss solutions to problem sets and assignments.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Lecture quizzes and exams using multiple-choice, short-answer, and extended-response questions to evaluate students' ability to explain, apply, and analyze core concepts in cell and molecular biology. Rubrics and sample questions are provided in advance to clarify expectations.
- B. Laboratory quizzes and practical assessments to evaluate students' ability to apply molecular biology techniques, interpret experimental data, and evaluate laboratory procedures. Rubrics and representative practical tasks are shared prior to assessment.
- C. A comprehensive lecture and laboratory final assessment, including written and practical components, to evaluate students' ability to synthesize, integrate, and critically analyze course concepts. Rubrics and representative examples are provided in advance.
- D. Laboratory reports or equivalent assignments, evaluated using clearly stated rubrics, to assess students' ability to apply theoretical knowledge to experimental methods and to analyze and interpret results. At least one laboratory assignment includes an opportunity for revision based on instructor feedback. Lab participation will be assessed using student communication skills, organization, experiment planning, and discussion contributions.
- E. Assessment accommodations, including extended time, low-distraction testing environments, and alternative laboratory assessment formats, are available through Disability Services to ensure equitable access for students with disabilities.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Laboratory room with equipment for cellular and molecular biology (room SC2118 or equivalent)

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Clark, M. A., Douglas, M., & Choi, J.	Biology 2e	OpenStax College	2026 (web version)	978-1947172517
Instructor	Laboratory manual as prepared by instructor.	PDF	Determined by Instructor	
Urry, L.A., et al.	Campbell Biology	Pearson	2027/13 edition	
SimBio	Virtual lab simulations	SimBio	2026	
LibreTexts.org	General Biology 2e (OpenStax)	LibreTexts.org		

Compiled on
03/25/2026

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Identify and describe basic themes in the study of cell biology

Explain how the chemical properties of atoms, molecules, and macromolecules determine cell structure and function.

Compare and contrast the structures of cells across various kingdoms of life.

Investigate the structure and function of cell membranes and differentiate among transport mechanisms.

Compare and contrast energy-processing pathways in cells, including respiration, fermentation, and photosynthesis.

Critically analyze the role of DNA technology in advancing biological knowledge and evaluate the ethical, social, and equity implications of its applications.

Explain the molecular mechanisms of gene expression.

Investigate the effects of meiosis and recombination on genomes.

Compare and contrast various modes of Mendelian and non-Mendelian genetics.

Critically analyze how molecular control of cell division and differentiation contributes to development and health.

CSLOs

Apply appropriate molecular biology techniques to investigate research questions, and interpret, evaluate, and communicate experimental results accurately.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Identify and describe basic themes in the study of cell biology.
 - 1. Identify and describe the cell as the fundamental unit of life, explaining why this concept is central to all of biology.
 - 2. Explain the relationship between molecular and cellular structures and their specific biological functions.
 - 3. Analyze how evolutionary processes shape the diversity of life by influencing how variations in molecular and cellular structures are inherited and how they contribute to adaptation over time.
 - 4. The study of cell biology reflects contributions from scientists worldwide. Instruction will acknowledge the contributions of scientists from historically marginalized communities and will address how social factors have shaped who gets to do science and whose contributions get recognized.
- B. Explain how the chemical properties of atoms, molecules, and macromolecules determine cell structure and function.
 - 1. Recall the properties of atoms, molecules, and chemical bonds relevant to biological systems
 - 2. Explain the unique properties of water that make it essential to life
 - 3. Classify organic molecules (carbon-based molecules) and their functional groups
 - 4. Compare the structure and function of macromolecules: proteins, nucleic acids, carbohydrates, and lipids
 - 5. Instruction will show the relevance of macromolecules to nutrition science, development of pharmaceuticals, and the biology of metabolic diseases, conditions that disproportionately affect certain communities due to social inequalities.
- C. Compare and contrast the structures of cells across various kingdoms of life.
 - 1. Distinguish between prokaryotic cells (no membrane-bound nucleus; e.g., bacteria) and eukaryotic cells (nucleus present; e.g., animals, plants, and fungi)
 - 2. Identify and explain the function of major organelles in eukaryotic cells
 - 3. Instructors may include examples of how researchers studying organisms from diverse ecosystems (including scientists from the Global South) have expanded our understanding of cellular diversity. Because access to advanced microscopy and other cell biology research tools remains unequally distributed globally, students can be asked to reflect on how this affects which organisms and diseases receive the most scientific attention.
- D. Investigate the structure and function of cell membranes and differentiate among transport mechanisms.
 - 1. Describe the phospholipid bilayer and the fluid mosaic model
 - 2. Compare transport mechanisms by which substances enter and exit cells
 - 3. Differentiate among diffusion, osmosis, and active transport
 - 4. Identify the structure and functions of cell junctions and describe the role of the extracellular matrix in tissues
- E. Compare and contrast the major energy-processing pathways in cells, including respiration, fermentation, and photosynthesis..
 - 1. Define metabolism and distinguish between catabolic and anabolic reactions
 - 2. Analyze the stages of cellular respiration to identify the reactants, products, and net energy yield of each stage.
 - 3. Compare fermentation to aerobic respiration
 - 4. Explain photosynthesis: how plants and other organisms convert light energy into glucose and oxygen
 - 5. Energy metabolism is directly relevant to understanding metabolic diseases such as diabetes, exercise physiology, and the biology of food fermentation across many cultural traditions. Students can be invited to connect the biochemistry of fermentation to cultural practices from their own backgrounds.
- F. Critically analyze the role of DNA technology in advancing biological knowledge and evaluate the ethical, social, and equity implications of its applications.
 - 1. Describe binary fission, the process by which prokaryotes replicate by dividing in two
 - 2. Explain the eukaryotic cell cycle and identify the stages of mitosis (cell division producing two genetically identical daughter cells)
 - 3. Analyze how molecular checkpoints regulate the cell cycle and prevent uncontrolled growth
 - 4. Evaluate how mutations that disrupt cell cycle control lead to cancer
 - 5. Explain apoptosis (programmed cell death) and analyze its role in maintaining healthy tissue (tissue homeostasis) and in cancer biology.
 - 6. Students will examine historical and contemporary inequities in biology, including the misuse of genetics, disparities in research and access to genetic technologies, and issues of under-recognized contributions of scientists because of race and/or gender (e.g. Rosalind Franklin).
- G. Explain the molecular mechanisms of gene expression and the regulation of gene expression.
 - 1. Describe DNA (deoxyribonucleic acid) structure and explain how genetic information is stored and transmitted
 - 2. Identify the components of gene structure, including coding and non-coding regions
 - 3. Explain transcription: the synthesis of mRNA (messenger RNA) from a DNA template
 - 4. Explain translation: the assembly of a protein at the ribosome using mRNA as instructions
 - 5. Describe post-translational modification and explain how it affects protein function
 - 6. Analyze how mutations (changes in DNA sequence) arise and evaluate their consequences for the cell and organism
 - 7. Explain how retroviruses use RNA to insert genetic material into a host cell's genome
 - 8. Examine how cells regulate gene expression by activating or silencing genes in response to internal and external signals
 - 9. Explain DNA replication and how cells ensure accurate genome copying before division

10. Students will appreciate that contributions to DNA technology include scientists from diverse backgrounds (e.g. Emmanuelle Charpentier, Jennifer Doudna among others). Students will be encouraged to develop a more ethical and inclusive understanding of scientific practice, with flexibility for instructor-selected examples.
- H. Investigate how meiosis and genetic recombination generate heritable variation in genomes.
 1. Explain how sexual reproduction and genetic recombination generate diversity
 2. Describe meiosis (cell division producing gametes, or sex cells) and compare it to mitosis
 3. Identify mechanisms that generate genetic variation
 4. When discussing reproductive biology, gender-inclusive language will be used throughout. The biological diversity of sex determination mechanisms across species will be acknowledged.
- I. Compare and contrast Mendelian and non-Mendelian modes of inheritance, and apply these principles to interpret genetic data and predict inheritance patterns.
 1. Apply Mendel's principles to predict patterns of inheritance
 2. Distinguish between phenotype (observable traits) and genotype (underlying genetic makeup)
 3. Classify genetic disorders by inheritance pattern and evaluate their molecular basis
 4. Explain gene mapping and how it is used to locate genes on chromosomes
 5. When discussing genetic disorders, instruction will center the dignity, agency and lived experience of individuals and communities affected by those conditions. The misuse of genetics and inequalities in access to genetic screening and counseling resources among minorities or populations of low socioeconomic status will be acknowledged. Students can also examine disparities in research funding linked to genetic diseases that affect marginalized communities.
- J. Critically analyze the molecular mechanisms that control cell proliferation and differentiation and evaluate how disruptions to these processes contribute to cancer and developmental disorders..
 1. Explain and analyze the molecular regulation of the cell cycle, including checkpoints, apoptosis, and cell signaling.
 2. Use and interpret molecular biology techniques, including polymerase chain reaction (PCR), gel electrophoresis, DNA sequencing, and recombinant DNA methods.
 3. Describe and evaluate applications of biotechnology, including gene editing, gene therapy, stem cells, and cancer biology.
 4. Evaluate ethical, social, and equity issues in biotechnology, including access, representation, and the use of DNA technologies in healthcare and the criminal justice system, with flexibility for instructor-selected examples.
 5. Cancer is a topic that may have personal relevance for many students. This topic will be addressed with sensitivity and respect for the lived experiences and agency of people with cancer. Instruction may include historical and contemporary examples that highlight both the contributions of cell biology to scientific advancement and ethical failures in research, including issues of consent and the experiences of underrepresented communities (e.g. HeLa cells).
 6. Students will examine how cancer incidence and survival rates differ across racial, ethnic, and socio-economic groups, and analyze how unequal access to screening, environmental exposures in frontline communities, and healthcare inequalities drive these disparities.

Lab Outline

- A. Protein Electrophoresis: Students will learn how to separate proteins by size using gel electrophoresis, and interpret band patterns
- B. Bacterial Conjugation: Students will explore how bacteria transfer DNA through plasmids, measure how efficiently the transfer occurs, and connect it to antibiotic resistance
- C. DNA restriction digests and electrophoresis: students will use restriction enzymes to cut DNA into fragments, join DNA using ligase enzymes, separate and analyze DNA patterns to understand genetic differences, and learn the significance of this technology to molecular biology
- D. Polymerase chain reaction: student will copy (amplify) specific DNA sequences using PCR, analyze results and connect to real-world uses like genetic fingerprinting, genetic testing, research, pathogen and disease detection.
- E. Control of bacterial gene expression: students will investigate how bacteria introduce genetic information through transformation, how they turn genes on and off, and analyze how environmental conditions affect gene activity
- F. Bacteriophage biology: students will study viruses that infect bacteria and their life cycles, use plaque assays to measure viral infections and understand implications of host-virus interactions in cell and molecular biology

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv**Prerequisite(s):**

BIOL D006A or BIOL D06AH

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.
- Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Assignments A Students will complete readings from the required textbook and supplemental sources, which may include open educational resources (OER), peer-reviewed articles, and materials that center the contributions of scientists from historically underrepresented communities. OER alternatives will be identified where available to eliminate cost as a barrier. At least one assignment will invite students to connect course content, for example, PCR technology, cancer biology, or gene expression, to a real-world issue affecting a specific community, such as disparities in cancer screening access, environmental toxin exposure in frontline communities, or the use of biotechnology in under-resourced healthcare settings. Students may choose a community relevant to their own background or lived experience.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Course Outline section J, 4, 5, 6. J Critically analyze the molecular mechanisms that control cell proliferation and differentiation and evaluate how disruptions to these processes contribute to cancer and developmental disorders.. 1 Explain and analyze the molecular regulation of the cell cycle, including checkpoints, apoptosis, and cell signaling. 2 Use and interpret molecular biology techniques, including polymerase chain reaction (PCR), gel electrophoresis, DNA sequencing, and recombinant DNA methods. 3 Describe and evaluate applications of biotechnology, including gene editing, gene therapy, stem cells, and cancer biology. 4 Evaluate ethical, social, and equity issues in biotechnology, including access, representation, and the use of DNA technologies in healthcare and the criminal justice system, with flexibility for instructor-selected examples. 5 Cancer is a topic that may have personal relevance for many students. This topic will be addressed with sensitivity and respect for the lived experiences and agency of people with cancer. Instruction may include historical and contemporary examples that highlight both the contributions of cell biology to scientific advancement and ethical failures in research, including issues of consent and the experiences of underrepresented communities (e.g. HeLa cells). 6 Students will examine how cancer incidence and survival rates differ across racial, ethnic, and socio-economic groups, and analyze how unequal access to screening, environmental exposures in frontline communities, and healthcare inequalities drive these disparities.

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

Assignments B Written laboratory reports, problem sets, or other assignments including results from laboratory experiments and critical analysis of data. Students will complete laboratory reports, problem sets, or equivalent assignments documenting experimental results and critically analyzing data.

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignments B Written laboratory reports, problem sets, or other assignments including results from laboratory experiments and critical analysis of data. Students will complete laboratory reports, problem sets, or equivalent assignments documenting experimental results and critically analyzing data. Methods of Evaluation D Laboratory reports or equivalent assignments, evaluated using clearly stated rubrics, to assess students' ability to apply theoretical knowledge to experimental methods and to analyze and interpret results. At least one laboratory assignment includes an opportunity for revision based on instructor feedback.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Course Outline C Compare and contrast the structures of cells across various kingdoms of life. E Compare and contrast the major energy-processing pathways in cells, including respiration, fermentation, and photosynthesis..

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

Methods of Evaluation: B Laboratory quizzes and practical assessments to evaluate students' ability to apply molecular biology techniques, interpret experimental data, and evaluate laboratory procedures. Rubrics and representative practical tasks are shared prior to assessment.

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

Methods of Evaluation: B Laboratory quizzes and practical assessments to evaluate students' ability to apply molecular biology techniques, interpret experimental data, and evaluate laboratory procedures. Rubrics and representative practical tasks are shared prior to assessment.

Objective 2: Investigate the use of mathematics in real world.

Assignments: B Written laboratory reports, problem sets, or other assignments including results from laboratory experiments and critical analysis of data. Students will complete laboratory reports, problem sets, or equivalent assignments documenting experimental results and critically analyzing data. Methods of Evaluation B Laboratory quizzes and practical assessments to evaluate students' ability to apply molecular biology techniques, interpret experimental data, and evaluate laboratory procedures. Rubrics and representative practical tasks are shared prior to assessment.

Objective 3: Explore functions.

Course Outline: I Compare and contrast Mendelian and non-Mendelian modes of inheritance, and apply these principles to interpret genetic data and predict inheritance patterns. 1 Apply Mendel's principles to predict patterns of inheritance 2 Distinguish between phenotype (observable traits) and genotype (underlying genetic makeup) 3 Classify genetic disorders by inheritance pattern and evaluate their molecular basis 4 Explain gene mapping and how it is used to locate genes on chromosomes

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

Course Outline: I Compare and contrast Mendelian and non-Mendelian modes of inheritance, and apply these principles to interpret genetic data and predict inheritance patterns. 1 Apply Mendel's principles to predict patterns of inheritance 2 Distinguish between phenotype (observable traits) and genotype (underlying genetic makeup) 3 Classify genetic disorders by inheritance pattern and evaluate their molecular basis 4 Explain gene mapping and how it is used to locate genes on chromosomes

Objective 6: Use linear inequalities in one variable to solve real world problems.

Course Outline: I Compare and contrast Mendelian and non-Mendelian modes of inheritance, and apply these principles to interpret genetic data and predict inheritance patterns. 1 Apply Mendel's principles to predict patterns of inheritance 2 Distinguish between phenotype (observable traits) and genotype (underlying genetic makeup) 3 Classify genetic disorders by inheritance pattern and evaluate their molecular basis 4 Explain gene mapping and how it is used to locate genes on chromosomes

Objective 7: Examine exponential expressions and develop exponential function models.

Methods of Evaluation D Laboratory reports or equivalent assignments, evaluated using clearly stated rubrics, to assess students' ability to apply theoretical knowledge to experimental methods and to analyze and interpret results. At least one laboratory assignment includes an opportunity for revision based on instructor feedback.

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

Course Outline: B Explain how the chemical properties of atoms, molecules, and macromolecules determine cell structure and function. 1 Recall the properties of atoms, molecules, and chemical bonds relevant to biological systems 2 Explain the unique properties of water that make it essential to life 3 Classify organic molecules (carbon-based molecules) and their functional groups 4 Compare the structure and function of macromolecules: proteins, nucleic acids, carbohydrates, and lipids

Objective 9: Develop quadratic function models to solve problems.

Course Outline: I Compare and contrast Mendelian and non-Mendelian modes of inheritance, and apply these principles to interpret genetic data and predict inheritance patterns. 1 Apply Mendel's principles to predict patterns of inheritance 2 Distinguish between phenotype (observable traits) and genotype (underlying genetic makeup) 3 Classify genetic disorders by inheritance pattern and evaluate their molecular basis 4 Explain gene mapping and how it is used to locate genes on chromosomes

Objective 10: Investigate the characteristics of rational expressions.

Course Outline: I Compare and contrast Mendelian and non-Mendelian modes of inheritance, and apply these principles to interpret genetic data and predict inheritance patterns. 1 Apply Mendel's principles to predict patterns of inheritance 2 Distinguish between phenotype (observable traits) and genotype (underlying genetic makeup) 3 Classify genetic disorders by inheritance pattern and evaluate their molecular basis 4 Explain gene mapping and how it is used to locate genes on chromosomes

Objective 11: Develop skills to work with radical expressions.

Methods of Evaluation D Laboratory reports or equivalent assignments, evaluated using clearly stated rubrics, to assess students' ability to apply theoretical knowledge to experimental methods and to analyze and interpret results. At least one laboratory assignment includes an opportunity for revision based on instructor feedback.

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

No Value

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/17/26	De Anza GE Form 2	Criteria	Required	Please provide explicit examples of verbal and collaborative communication	

Stage 6: Content Review Matrix Liaison

No Value

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
5/1/2026	Learning Outcomes	CSLO #1	Required	Students will apply appropriate molecular biology techniques to investigate research questions, and interpret, evaluate, and communicate experimental results accurately. This outcome will be assessed through laboratory reports and data analysis assignments. Rubrics and sample work will be provided. Student learning Outcome needs to begin with a Bloom's Taxonomy verb and not with the words "Students will ..." 'Explore' is not a Suggestion. Bloom's taxonomy verb. In addition, the "how" it will be assessed is most properly placed in the "Assignments" and "Methods of Evaluation" areas of the COR. Apply appropriate molecular biology techniques to investigate research questions, and interpret, evaluate, and communicate experimental results accurately.	Y

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

BIOL 006B

Course Status

Non-substantial

Course Characteristics

- NA

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/01/2026

BIOLD06CH : Ecology and Evolution - HONORS

General Information

Faculty Initiator:	Lianna Wong
Attachments:	Hybrid_BIOL_6CH_2027F.pdf ReqAdv_G_BIOL_6CH_2027F_1.pdf ReqAdv_G_BIOL_6CH_2027F_2.pdf
Course ID (CB01A and CB01B) :	BIOLD06CH
Short Course Title:	ECOLOGY AND EVOLUTION-HONORS
Course Title (CB02) :	Ecology and Evolution - HONORS
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000558478
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	In this course, students are introduced to the principles of ecology and evolution, including the ecology of populations, communities, ecosystems and biomes, as well as the evolution of populations and the origin of species and higher taxa. In the laboratory portion of the course, students learn about experimental design, data collection, analysis and presentation. Students will design, research and present findings from a collaborative, student-led research project. This course prepares students for upper division biology coursework in ecology and evolution. This course is the honors version and as a result, includes more advanced assignments and assessments.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - BIOLOGICAL SCIENCES

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is the final course of a three-course series that is a major preparation requirement in the discipline of Biological Sciences for CSUs and UCs. It meets the general education requirement for De Anza and Cal-GETC, and it is required for completion of De Anza's Biological Sciences A.S. degree. This course provides students in the biological sciences with essential foundations in ecology and evolution. This course is the honors version and as a result, includes more advanced assignments and assessments.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

Yes - don't forget to duplicate the revisions in the honors/non-honors course

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

BIOL F001C

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

• Course description uses welcoming, student-centered language and minimizes the use of impersonal, course-centered language. • Methods of instruction include a variety of modalities to accommodate and engage diverse student bodies, advance equitable student outcomes, and promote the inclusion of all students. Lab activities can be modified to ensure that students with disabilities receive the same course content. • OER textbook may be used in this course. We have also negotiated reduced cost access to Mastering Biology for the BIOL 6 series courses, and hope to achieve Low Textbook Cost designation by Fall 2026. Both OER and LTC texts incorporate examples of diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students. • Several course assignments provide students the opportunity to revise their work based on instructor feedback, peer discussion, and self-reflection. • Students have substantial agency and choice in the design and execution of the course research project. They can select any research site in their local community, formulate their research questions based on their interests and life experiences, and are encouraged to connect their project focus to something that is personally meaningful to them. Assignment description has been updated to better reflect this. • Students are provided with examples of research projects completed by past student groups. • Collaborative group work facilitates exchange of ideas amongst students with diverse backgrounds and perspectives. • Course topics such as climate change, conservation and restoration biology allow connection of scientific concepts to discussions of inequities, disproportionate impact, and environmental justice.

Course Development Options		
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 - Pass/No Pass
Repeat Limit 0	Course Prior To College Level Not applicable.	Repeatability Statement No value
Course Support Status (CB26) Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Biological Sciences	Associate in Science (A.S.) Degree	Fall 2025
Biology 2.0 for Transfer (In Development)	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2027
Biology for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Community Impact	Certificate of Achievement (COA)	Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2025 to Fall 2026
Environmental Science for Transfer	Associate in Science for Transfer (A.S.-T.) Degree	Fall 2026

Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Medical Laboratory Technology	Associate in Arts (A.A.) Degree	Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Medical Laboratory Technology	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options					
Course General Education Status (CB25)					
Y					
Transferability (CB05)			Transferability Status		
Transferable to both UC and CSU			Approved		
De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G5X	De Anza GE Area 5 - Natural Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5B	Cal-GETC Area 5B - Biological Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	
C-ID	Area(s)	Status	Approval Date	End Date	-

BIOL	Biology	Approved	No value	No value	• (BIOL D006A or BIOL D06AH) & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 130 S • (BIOL D006A or BIOL D06AH) & BIOL D006B & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 135 S
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UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	6
Maximum Credit Units	6
Total Course In-Class (Contact) Hours	120
Total Course Out-of-Class Hours	96
Total Student Learning Hours	216

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education

☐ Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	6	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	72
NA	0
Total	120

Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids, including slides, short videos and animations Discussion of assigned course materials Discussion and problem solving performed in class In-class exploration of Internet sites and resources Quiz and examination review performed in class Homework and extended projects Field observation and field trips Presentations by guest speakers Collaborative learning and small group exercises Collaborative, student-led projects Laboratory experience where students practice data collection and analysis techniques in small groups Laboratory discussion sessions and quizzes that evaluate the weekly laboratory exercises Other: interactive computer simulations of ecological and evolutionary processes Other: Classroom polling
Assignments	A. Reading from the text, laboratory manual, and other assigned sources. B. Completion of laboratory experiments and assignments. C. Critical analysis and discussion of relevant scientific papers. D. Student-directed research project: students work in small groups to formulate research questions that are most interesting and/or relevant to them, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. E. Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study.

Methods of Evaluation		Methods of Evaluation		
Methods of Evaluation		A. Lecture exams and/or quizzes, testing comprehension and requiring synthesis and application of course material; evaluation based on percent correct. Students may have the option to correct exam questions for partial credit. B. Lab exams and/or quizzes, which may include subjective, objective and/or practical components, covering experimental concepts and procedures; evaluation based on percent correct C. Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric D. Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. E. Final exam requiring students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course; evaluation based on percent correct. F. The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report.		
Essential Student Materials/Essential College Facilities				
Essential Student Materials:				
• None				
Essential College Facilities:				
• Fully equipped biology laboratory				
Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Clark, M. A., Douglas, M., & Choi, J.	Biology 2e	OpenStax	2026 (web)	
Urry, L.A., et al.	Campbell Biology	Pearson	2027/13e	
McPartlan, Elizabeth	Biology 6C Ecology and Evolution Laboratory Manual	De Anza College	2023	
SimBio	Virtual lab simulations	SimBio	2026	
Suggested Reading List				

No Value

Learning Outcomes

Course Objectives

Describe science as a process using ecological studies as examples.

Define the characteristics of a population and examine the interactions of members of a population.

Define the characteristics of a biological community and examine the interactions of community members.

Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem.

Describe the biomes of the world and compare their characteristics.

Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet.

Analyze animal behavior and illustrate the relationships between behavior, ecology, and evolution.

Explain the concepts of Darwinian evolution.

Investigate populations as the smallest units of evolution.

Explain mechanisms of speciation.

Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

Assist in an ongoing field study and/or restoration project in partnership with a local community group.

CSLOs

Design and complete an independent ecological research project.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Describe science as a process using ecological studies as examples.
 - 1. Implement proper scientific design including variables and controls.
 - 2. Review proper format for scientific literature.
 - 3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines.
 - 4. Examine ethics in ecological studies.
- B. Define the characteristics of a population and examine the interactions of members of a population.
 - 1. Define "population" and discuss the significance of scale and time in determining a population.
 - 2. Examine population demographics including density, dispersion, age structure, and sex ratio.
 - 3. Examine population growth and compare logistic and exponential growth of populations and the implications of each.
 - 4. Identify mechanisms of population regulation including predation, competition, and disease.
 - 5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world.
 - 6. Compare life history strategies of various organisms and discuss the advantages of each.
- C. Define the characteristics of a biological community and examine the interactions of community members.
 - 1. Define "community" and examine examples of biological communities.
 - 2. Identify community interactions including symbiosis, competition and predation.
 - 3. Examine community structure including diversity of species, trophic structure and the effects of dominant and keystone species.
 - 4. Examine the effects of natural and man-made disturbance on communities.
 - 5. Examine the affects of biogeographic factors, such as latitude and area of coverage, on communities.
- D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem.
 - 1. Define "ecosystem" and explore many diverse examples of ecosystems.
 - 2. Apply the physical laws of Conservation of Energy and Conservation of Mass to the energy flow through an ecosystem and to nutrient cycling.
 - 3. Compare primary production in aquatic and terrestrial ecosystems and relate it to trophic structure and energy transfer in ecosystems.
 - 4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities.
- E. Describe the biomes of the world and compare their characteristics.
 - 1. Define "biome" and explore the biomes that comprise the biosphere.
 - 2. Examine the effects of biogeographic factors such as climate and precipitation on the characteristics of biomes.
 - 3. Examine the relationship between biogeographic factors and species distribution.
- F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet.
 - 1. Examine human activities that threaten biodiversity and conservation efforts to protect it.
 - 2. Examine restoration ecology using examples of successful restoration projects.
 - 3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice.
- G. Examine animal behavior and illustrate the relationships between behavior, ecology, and evolution.
 - 1. Examine and differentiate behaviors such as fixed action patterns, directed movements, and communication.
 - 2. Examine and compare types of learning such as habituation, imprinting, and associative learning.
 - 3. Explain the phrase "nature vs. nurture" and analyze the roles of both genetics and the environment in animal behavior.
 - 4. Examine reproductive success and kin selection as driving forces in the evolution of animal behavior, including altruistic behavior.
- H. Explain the concepts of Darwinian evolution.
 - 1. Describe the pre-Darwinian climate and the events that shaped Darwin's ideas.
 - 2. Summarize Darwin's ideas regarding descent with modification and the impact it had at the time.
 - 3. Examine natural selection as a mechanism of evolution using examples that illustrate directional, stabilizing, and disruptive selection.
 - 4. Examine the many lines of evidence that support the theory of evolution via natural selection including homology and divergent evolution, analogy and convergent evolution, and the fossil record.
- I. Investigate populations as the smallest units of evolution.
 - 1. Examine sources of genetic variation, such as mutation and sexual reproduction, as well as preservation of variation through mechanisms such as stabilizing selection, heterozygote advantage, and frequency-dependent selection.
 - 2. Analyze allele frequencies in a population relative to the Hardy-Weinberg equation.
 - 3. Examine mechanisms that change allele frequencies in a population such as natural selection, genetic drift, and gene flow.
- J. Explain mechanisms of speciation.
 - 1. Critically evaluate the Biological Species Concept and distinguish it from other species concepts.
 - 2. Explain reproductive isolation and examples of prezygotic and postzygotic isolating mechanisms.
 - 3. Distinguish sympatric speciation, allopatric speciation, and hybrid zones.
- K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

1. Identify organisms in the field using dichotomous keys and field guides.
 2. Apply techniques of field biology, such as identification, collection, sampling, and focal animal observation, to collect of data for ecological research.
 3. Construct databases and apply statistical analysis to data in order to interpret results of ecological studies.
- L. Assist in an ongoing field study and/or restoration project in partnership with a local community group.
1. Work with local organization in collection of data, such as vegetation monitoring at McClellan park, using sound ecological field techniques learned in class.
 2. Work with local organization in organizing data to establish or build upon data accumulated through successive years of study.
 3. Work with local organization to apply appropriate statistical analysis for interpretation of data collected.
 4. Provide local organization with a written summary of data collection and analysis.

Lab Outline

- A. Scientific investigation: Display of data: tables and graphs
- B. The steps involved in scientific process: observation, research, formulating a hypothesis, experimental design, interpreting results and discussion and conclusions
- C. Analysis of data: mean, standard deviation, variance, standard error, chi-square, t-test, correlation analysis
- D. Measuring biodiversity
- E. Focal animal observation
- F. Estimating population size and dispersion
- G. Behavioral ecology

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

BIOL D006A (or BIOL D06AH) and BIOL D006B, with a grade of C or better

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.
- Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Not open to students with credit in the non-Honors related course.)
- (Admission into this course requires consent of the Honors Program Coordinator.)

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Objective A: Describe science as a process using ecological studies as examples. Objective A2. Review proper format for scientific literature. Objective A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. Objective A4. Examine ethics in ecological studies. Assignment A: Reading from the text, laboratory manual, and other assigned sources. Assignment C: Critical analysis and discussion of relevant scientific papers. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. All of the objectives of BIOL 6C require evaluation and synthesis of facts from various sources that are culturally and rhetorically diverse.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report.

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report.

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Objective A: Describe science as a process using ecological studies as examples. Objective A1. Objective A2. Review proper format for scientific literature. Objective A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. Objective A4. Examine ethics in ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment

D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report. All of the objectives of BIOL 6C require evaluation and synthesis of facts from various sources that include multiplicity and ambiguity of perspectives.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Compare life history strategies of various organisms and discuss the advantages of each. Objective K: Apply field skills, laboratory techniques and

statistical analysis as necessary components of ecological studies. Objective C: Examine the affects of biogeographic factors, such as latitude and area of coverage, on communities.

Objective 3: Explore functions.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each. Objective C: Examine the affects of biogeographic factors, such as latitude and area of coverage, on communities. Objective K: Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each.

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each.

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals. No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions. No Value
Objective 4: Solve problems involving operations with signed numbers. No Value
Objective 5: Explore the characteristics and properties of real numbers. No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers. No Value
Objective 7: Explore rates and ratios and use proportions to solve problems. No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas. No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions. No Value
Objective 10: Solve linear equations in one variable numerically and algebraically. No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs. No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world. No Value

G-Matrix Form
If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

Admission into this course requires consent of the Honors Program Coordinator.

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. Course Outline H. Explain the concepts of Darwinian evolution. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on

rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report.

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment C: Critical analysis and discussion of relevant scientific papers. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report. Methods of Evaluation A: Lecture exams and/or quizzes, testing comprehension and requiring synthesis and application of course material; evaluation based on percent correct. Students may have the option to correct exam questions for partial credit. Methods of Evaluation B: Lab exams and/or quizzes, which may include subjective, objective and/or practical components, covering experimental concepts and procedures; evaluation based on percent correct Methods of Evaluation E: Final exam requiring students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course; evaluation based on percent correct.

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. A4. Examine ethics in ecological studies. Course Outline B. Define the characteristics of a population and examine the interactions of members of a population. B5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Course Outline D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem. D4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities. Course Outline F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet. F3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice. Assignment C: Critical analysis and discussion of relevant scientific papers.

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. A4. Examine ethics in ecological studies. Course Outline B. Define the characteristics of a population and examine the interactions of members of a population. B5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Course Outline D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem. D4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities. Course Outline E. Describe the biomes of the world and compare their characteristics. Course Outline F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet. F3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice. Course Outline H. Explain the concepts of Darwinian evolution.

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. A4. Examine ethics in ecological studies. Course Outline B. Define the characteristics of a population and examine the interactions of members of a population. B5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Course Outline D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem. D4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities. Course Outline E. Describe the biomes of the world and compare their characteristics. Course Outline F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet. F3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment C: Critical analysis and discussion of relevant scientific papers. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Assignment E: Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study. Methods of Evaluation F: The honors assignment will be evaluated with a rubric that includes criteria such as field technique, sound statistical analysis, and thoroughness of the written report.

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/15/2026	Specifications	Assignments	Suggested	Thanks for this list of assignments. I asked about whether any assignments encourage students to connect course content to their own life, background, and experience for the non honors COR, but I think the honors assignment listed here does this ("Honors students will work with a local community organization and contribute to their study through collection and organization of data, statistical analysis of data, and completion of a written summary of their contribution to the study." If yes, please confirm in the Initiator Response box to the right. Thanks!	Y - Assignment description has been updated to better reflect this and align with nonhonors course

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/22/26	Basic Course Information	Attachments	Required	Submit a separate matrix G for each of BIO 6A and BIO 6B. (The matrix you have submitted does not match any prerequisite for this course.)	Y- uploaded Matrix G forms for BIOL 6A and 6B
4/22/26	Matrix H	Objective 2	Required	Complete for your limitation on enrollment	Y - updated Honors enrollment
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO

Sort ID (00 < 10; 0 < 100)

BIOL 006CH

Course Status

Non-substantial

Course Characteristics

- Honors

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/01/2026

BIOLD006C : Ecology and Evolution

General Information

Faculty Initiator:	Lianna Wong
Attachments:	ReqAdv_G_BIOL_6C_2027F_1.pdf ReqAdv_G_BIOL_6C_2027F_2.pdf Hybrid_BIOL_6C_2027F.pdf
Course ID (CB01A and CB01B) :	BIOLD006C
Short Course Title:	ECOLOGY AND EVOLUTION
Course Title (CB02) :	Ecology and Evolution
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000156377
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	In this course, students are introduced to the principles of ecology and evolution, including the ecology of populations, communities, ecosystems and biomes, as well as the evolution of populations and the origin of species and higher taxa. In the laboratory portion of the course, students learn about experimental design, data collection, analysis and presentation. Students will design, research and present findings from a collaborative, student-led research project. This course prepares students for upper division biology coursework in ecology and evolution.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - BIOLOGICAL SCIENCES

Course Development Options

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

Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒ Course is part of a program

Associated Program

No value

Award Type

No value

Active

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE

Area(s)

Status

Approval Date

End Date

-

2G5X

De Anza GE Area 5 - Natural Sciences

Approved

No value

No value

No - defined.

Cal-GETC

Area(s)

Status

Approval Date

End Date

-

CA5B

Cal-GETC Area 5B - Biological Science

Approved

No value

No value

No - defined.

CA5C

Cal-GETC Area 5C - Science Laboratory

Approved

No value

No value

C-ID

Area(s)

Status

Approval Date

End Date

-

BIOL	Biology	Approved	No value	No value	(BIOL D006A or BIOL D06AH) & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 130 S (BIOL D006A or BIOL D06AH) & BIOL D006B & (BIOL D006C or BIOL D06CH) required for C-ID BIOL 135 S
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Units and Hours

Summary

Minimum Credit Units	6
Maximum Credit Units	6
Total Course In-Class (Contact) Hours	120
Total Course Out-of-Class Hours	96
Total Student Learning Hours	216

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education

☐ Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	6	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	72
NA	0
Total	120
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids, including slides, short videos and animations Discussion of assigned course materials Discussion and problem solving performed in class In-class exploration of Internet sites and resources Quiz and examination review performed in class Homework and extended projects Field observation and field trips Presentations by guest speakers Collaborative learning and small group exercises Collaborative, student-led projects Laboratory experience where students practice data collection and analysis techniques in small groups Laboratory discussion sessions and quizzes that evaluate the weekly laboratory exercises Other: interactive computer simulations of ecological and evolutionary processes Other: Classroom polling
Assignments	A. Reading from the text, laboratory manual, and other assigned sources. B. Completion of laboratory experiments and assignments. C. Critical analysis and discussion of relevant scientific papers. D. Student-directed research project: students work in small groups to formulate research questions that are most interesting and/or relevant to them, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report.
Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Lecture exams and/or quizzes, testing comprehension and requiring synthesis and application of course material; evaluation based on percent correct. Students may have the option to correct exam questions for partial credit. B. Lab exams and/or quizzes, which may include subjective, objective and/or practical components, covering experimental concepts and procedures; evaluation based on percent correct

- C. Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric
- D. Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects.
- E. Final exam requiring students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course; evaluation based on percent correct.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Fully equipped biology laboratory

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Clark, M. A., Douglas, M., & Choi, J.	Biology 2e	OpenStax	2026 (web)	
Urry, L.A., et al.	Campbell Biology	Pearson	2027/13e	
McPartlan, Elizabeth	Biology 6C Ecology and Evolution Laboratory Manual	De Anza College	2023	
SimBio	Virtual lab simulations	SimBio	2026	

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Describe science as a process using ecological studies as examples.

Define the characteristics of a population and examine the interactions of members of a population.

Define the characteristics of a biological community and examine the interactions of community members.

Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem.

Describe the biomes of the world and compare their characteristics.

Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet.

Analyze animal behavior and illustrate the relationships between behavior, ecology, and evolution.

Explain the concepts of Darwinian evolution.

Investigate populations as the smallest units of evolution.

Explain mechanisms of speciation.

Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

CSLOs

Design, execute and present findings from an independent ecological research project.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Describe science as a process using ecological studies as examples.
 1. Implement proper scientific design including variables and controls.
 2. Review proper format for scientific literature.
 3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines.
 4. Examine ethics in ecological studies.
- B. Define the characteristics of a population and examine the interactions of members of a population.
 1. Define "population" and discuss the significance of scale and time in determining a population.
 2. Examine population demographics including density, dispersion, age structure, and sex ratio.
 3. Examine population growth and compare logistic and exponential growth of populations and the implications of each.
 4. Identify mechanisms of population regulation including predation, competition, and disease.

5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world.
6. Compare life history strategies of various organisms and discuss the advantages of each.
- C. Define the characteristics of a biological community and examine the interactions of community members.
 1. Define "community" and examine examples of biological communities.
 2. Identify community interactions including symbiosis, competition and predation.
 3. Examine community structure including diversity of species, trophic structure and the effects of dominant and keystone species.
 4. Examine the effects of natural and man-made disturbance on communities.
 5. Examine the affects of biogeographic factors, such as latitude and area of coverage, on communities.
- D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem.
 1. Define "ecosystem" and explore many diverse examples of ecosystems.
 2. Apply the physical laws of Conservation of Energy and Conservation of Mass to the energy flow through an ecosystem and to nutrient cycling.
 3. Compare primary production in aquatic and terrestrial ecosystems and relate it to trophic structure and energy transfer in ecosystems.
 4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities.
- E. Describe the biomes of the world and compare their characteristics.
 1. Define "biome" and explore the biomes that comprise the biosphere.
 2. Examine the effects of biogeographic factors such as climate and precipitation on the characteristics of biomes.
 3. Examine the relationship between biogeographic factors and species distribution.
- F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet.
 1. Examine human activities that threaten biodiversity and conservation efforts to protect it.
 2. Examine restoration ecology using examples of successful restoration projects.
 3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice.
- G. Examine animal behavior and illustrate the relationships between behavior, ecology, and evolution.
 1. Examine and differentiate behaviors such as fixed action patterns, directed movements, and communication.
 2. Examine and compare types of learning such as habituation, imprinting, and associative learning.
 3. Explain the phrase "nature vs. nurture" and analyze the roles of both genetics and the environment in animal behavior.
 4. Examine reproductive success and kin selection as driving forces in the evolution of animal behavior, including altruistic behavior.
- H. Explain the concepts of Darwinian evolution.
 1. Describe the pre-Darwinian climate and the events that shaped Darwin's ideas.
 2. Summarize Darwin's ideas regarding descent with modification and the impact it had at the time.
 3. Examine natural selection as a mechanism of evolution using examples that illustrate directional, stabilizing, and disruptive selection.
 4. Examine the many lines of evidence that support the theory of evolution via natural selection including homology and divergent evolution, analogy and convergent evolution, and the fossil record.
- I. Investigate populations as the smallest units of evolution.
 1. Examine sources of genetic variation, such as mutation and sexual reproduction, as well as preservation of variation through mechanisms such as stabilizing selection, heterozygote advantage, and frequency-dependent selection.
 2. Analyze allele frequencies in a population relative to the Hardy-Weinberg equation.
 3. Examine mechanisms that change allele frequencies in a population such as natural selection, genetic drift, and gene flow.
- J. Explain mechanisms of speciation.
 1. Critically evaluate the Biological Species Concept and distinguish it from other species concepts.
 2. Explain reproductive isolation and examples of prezygotic and postzygotic isolating mechanisms.
 3. Distinguish sympatric speciation, allopatric speciation, and hybrid zones.
- K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.
 1. Identify organisms in the field using dichotomous keys and field guides.
 2. Apply techniques of field biology, such as identification, collection, sampling, and focal animal observation, to collect of data for ecological research.
 3. Construct databases and apply statistical analysis to data in order to interpret results of ecological studies.

Lab Outline

- A. Scientific investigation: Display of data: tables and graphs
- B. The steps involved in scientific process: observation, research, formulating a hypothesis, experimental design, interpreting results and discussion and conclusions
- C. Analysis of data: mean, standard deviation, variance, standard error, chi-square, t-test, correlation analysis
- D. Measuring biodiversity
- E. Focal animal observation
- F. Estimating population size and dispersion
- G. Behavioral ecology

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

BIOL D006A (or BIOL D06AH) and BIOL D006B, with a grade of C or better

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.
- Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Not open to students with credit in the Honors Program related course.)

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Objective A: Describe science as a process using ecological studies as examples. Objective A2. Review proper format for scientific literature. Objective A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. Objective A4. Examine ethics in ecological studies. Assignment A: Reading from the text, laboratory manual, and other assigned sources. Assignment C: Critical analysis and discussion of relevant scientific papers. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. All of the objectives of BIOL 6C require evaluation and synthesis of facts from various sources that are culturally and rhetorically diverse.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and

execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects.

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects.

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Objective A: Describe science as a process using ecological studies as examples. Objective A1. Objective A2. Review proper format for scientific literature. Objective A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. Objective A4. Examine ethics in ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. All of the objectives of BIOL 6C require evaluation and synthesis of facts from various sources that include multiplicity and ambiguity of perspectives.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Compare life history strategies of various organisms and discuss the advantages of each. Objective C: Examine the affects of biogeographic factors, such as latitude and area of coverage, on communities. Objective K: Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

Objective 3: Explore functions.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each. Objective C: Examine the affects of biogeographic factors, such as latitude and area of coverage, on communities. Objective K: Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each.

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

Objective B: Examine population demographics including density, dispersion, age structure, and sex ratio. Examine population growth and compare logistic and exponential growth of populations and the implications of each.

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. Course Outline H. Explain the concepts of Darwinian evolution. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies.

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects.

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment C: Critical analysis and discussion of relevant scientific papers. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects. Methods of Evaluation A: Lecture exams and/or quizzes, testing comprehension and requiring synthesis and application of course material; evaluation based on percent correct. Students may have the option to correct exam questions for partial credit. Methods of Evaluation B: Lab exams and/or quizzes, which may include subjective, objective and/or practical components, covering experimental concepts and procedures; evaluation based on percent correct. Methods of Evaluation E: Final exam requiring students to demonstrate the ability to summarize, integrate and critically analyze concepts examined throughout the course; evaluation based on percent correct.

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. A4. Examine ethics in ecological studies. Course Outline B. Define the characteristics of a population and examine the interactions of members of a population. B5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Course Outline D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem. D4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities. Course Outline F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet. F3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice. Assignment C: Critical analysis and discussion of relevant scientific papers.

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. A4. Examine ethics in ecological studies. Course Outline B. Define the characteristics of a population and examine the interactions of members of a population. B5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Course Outline D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem. D4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities. Course Outline E. Describe the biomes of the world and compare their characteristics. Course Outline F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet. F3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice. Course Outline H. Explain the concepts of Darwinian evolution.

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A. Describe science as a process using ecological studies as examples. A3. Differentiate scientific journal articles from science articles found in newspapers and popular magazines. A4. Examine ethics in ecological studies. Course Outline B. Define the characteristics of a population and examine the interactions of members of a population. B5. Apply concepts of population ecology to human populations in terms of demographics and population growth, with emphasis on implications for various societies and the world. Course Outline D. Define the characteristics of an ecosystem and examine the interactions of living and abiotic components of an ecosystem. D4. Examine the many ways humans impact ecosystems including nutrient enrichment, acid precipitation, environmental toxins, greenhouse gases and global warming, and depletion of ozone, incorporating examples of disproportionate impact across different communities. Course Outline E. Describe the biomes of the world and compare their characteristics. Course Outline F. Examine conservation biology and restoration ecology as fields of study dedicated to mediating some of the negative impacts humans have had on the planet. F3. Discuss case studies that examine inequities, disproportionate impact on certain communities, and environmental justice. Course Outline K. Apply field skills, laboratory techniques and statistical analysis as necessary components of ecological studies. Assignment B: Completion of laboratory experiments and assignments. Methods of Evaluation C: Laboratory assignments and reports demonstrating analysis and interpretive skills; evaluation based on rubric. Assignment C: Critical analysis and discussion of relevant scientific papers. Assignment D: Student-directed research project: students work in small groups to formulate research question, design experiment, collect and analyze data, interpret results, compare results with published scientific literature, and communicate their findings in an oral scientific presentation and/or written report. Methods of Evaluation D: Quarter laboratory/field project and presentation and/or written report demonstrating students' ability to design, analyze, interpret, and present original scientific research; evaluation based on rubric. Students formulate research questions to be investigated, and design and execute the research project collaboratively in small groups. Students submit draft components for instructor and peer feedback. Students are provided with examples of past research projects.

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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4/15/2026 Specifications Assignments Suggested	Thanks for this list of assignments. Do assignments encourage students to connect course content to their own life, background, and experiences? If yes, consider minor revisions to highlight this for the relevant assignment. If not appropriate, that's fine, just let me know in the Initiator response box -- this COR is already incredibly equitable/DEI informed (great job!).	Y Students have substantial agency and choice in the design and execution of the course research project. They can select any research site in their local community, formulate their research questions based on their interests and life experiences, and are encouraged to connect their project focus to something that is personally meaningful to them. Assignment description has been updated to better reflect this.			
Stage 4: Articulation Officer					
No Value					
Stage 5: De Anza General Education					
No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/22/26	Basic Course Information	Attachments	Required	Please submit a separate Matrix G for each of BIO 6A and BIO 6B. The matrix you submitted does not match either of these prerequisites.	Y - new Matrix G forms submitted for BIOL 6A and 6B
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO
Sort ID (00 < 10; 0 < 100) BIOL 006C
Course Status Non-substantial
Course Characteristics NA

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

10/27/2020

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/01/2026

BIOLD013. : Marine Biology

General Information

Faculty Initiator:	Jason Bram
Attachments:	Online_BIOL_13_2027F.pdf
Course ID (CB01A and CB01B) :	BIOLD013.
Short Course Title:	MARINE BIOLOGY
Course Title (CB02) :	Marine Biology
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000334171
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	In this course, students explore the diversity of life in marine environments and develop an understanding of how ocean systems shape the organisms that live within them. Students learn how geological, chemical, and physical ocean processes influence marine ecosystems, building a foundation for understanding life in the ocean. Through a comparative approach, students examine how different marine organisms have evolved physiological and anatomical adaptations that support survival in a wide range of environments. Students investigate major marine ecosystems—including the epipelagic zone, deep sea, hydrothermal vents, intertidal zones, estuaries, coral reefs, and polar regions—and consider how ecological relationships vary across these habitats. By the end of the course, students will be able to apply principles from ecology, evolution, cell and molecular biology, and the scientific method to analyze marine systems, interpret scientific information, and better understand the interconnectedness of life in the ocean.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Online
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	No value
Discipline 3:	No value

FSA:

- FHDA FSA - BIOLOGICAL SCIENCES

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is transferable to CSU and UC. It belongs on the A.A. Degree in Liberal Arts - Science, Math, Engineering Emphasis. This course meets a general education requirement for De Anza and Cal-GETC. It allows students to meet the Life/Natural/Biological Science, with laboratory, general education requirement through the study of Marine Biology.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course integrates diversity, equity, and inclusion by examining marine biological concepts within their broader social, ethical, and equity contexts. Students examine how topics such as marine life, marine ecology, oceanography, evolution, and human impacts on marine systems affect diverse communities and inform societal decision-making. Course materials and instructional practices emphasize inclusive examples, clear explanations, and equitable access to learning, including the use of open educational resources where appropriate. In addition, all course field trips are non-mandatory and at no cost for students (subsidized by De Anza College Student Government), promoting the fair treatment and full participation of De Anza College students in the course. Students will engage with current debates in marine biology—such as climate change, ocean conservation, and environmental justice—connecting scientific concepts to real-world challenges and diverse lived experiences. A variety of assessments, including written and oral reports, data analysis, research activities, and exams, support the development of scientific literacy and critical thinking. The course also incorporates texts that reflect diverse voices in marine science, including *Sharks Don't Sink: Adventures of a Rogue Shark Scientist* by Jasmin Graham and *How Far the Light Reaches: A Life in 10 Sea Creatures* by Sabrina Imbler. These works broaden representation and highlight multiple perspectives within the field.

Course Development Options

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

Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒

Course is part of a program

Associated Program	Award Type	Active
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Community Impact	Certificate of Achievement (COA)	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G5X	De Anza GE Area 5 - Natural Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5B	Cal-GETC Area 5B - Biological Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	5
Maximum Credit Units	5
Total Course In-Class (Contact) Hours	84
Total Course Out-of-Class Hours	96
Total Student Learning Hours	180

Credit / Non-Credit Options

Course Credit Status (CB04) Credit - Degree Applicable	Course Non Credit Category (CB22) Credit Course.
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Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	3	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	36
NA	0
Total	84
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Discussion of assigned reading Lecture and visual aids Discussion and problem solving performed in class Field observation and field trips Collaborative learning and small group exercises Homework and extended projects Laboratory experience which involve students in formal exercises of data collection and analysis Guest speakers Collaborative projects

Assignments A. Reading from the text, laboratory manual and other assigned sources, some of which encourages students to connect course content to their own backgrounds and experiences. B. Completion of writing assignments involving critical evaluation of sources of information on marine biology-related topics, some of which encourages students to connect course content to their own backgrounds and experiences. C. Cooperative performance of laboratory experiments and exercises, with small group discussions of experimental results followed by written reports of results and conclusions, allowing for the opportunity to revise work based on instructor and peer feedback. D. Field Trips which include data collection and interpretation, and provides the opportunity to revise their work based on both instructor and peer feedback. E. Oral presentation and discussion on a topic in marine biology which encourages students to connect course content to their own background and experiences, as well as providing the opportunity to revise their work based on both instructor and peer feedback.				
Methods of Evaluation Methods of Evaluation		Methods of Evaluation A. Midterm exams and final exam, testing comprehension and requiring synthesis and application of course material. B. Lab exams and quizzes, which may include subjective, objective and/or practical components, covering experimental concepts and procedures. C. Written assignments and laboratory reports requiring analytical and interpretive skills. D. Oral presentation requiring analytical and interpretive skills evaluated using a rubric.		
Essential Student Materials/Essential College Facilities Essential Student Materials: - None Essential College Facilities: - None				
Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Castro, Peter and Huber, Michael H.	Marine Biology	McGraw Hill Publisher, NY, NY,	12th edition, 2024	
Bram, Jason	Marine Biology Lab Manual	De Anza College	2025	
Doe, Jinger	Life in the Oceans	OER Commons	2025	
Jasmin Graham	Sharks Don't Sink: Adventures of a Rogue Shark Scientist	Pantheon Books	2024	978-0593685259

Sabrina Imbler

How Far the Light Reaches: A
Life in Ten Sea Creatures

Little, Brown and
Company

2022/1st Edition

978-0316540537

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Examine marine biology as a branch of the biological sciences and its relation to other scientific fields.

Appraise and analyze the components and interrelationships of communities, ecosystems, and the biosphere

Appraise the physical and chemical properties of the ocean.

Examine the structure of prokaryotic and eukaryotic cells and cellular processes

Compare and contrast the anatomy, behavior, reproduction, and ecology of selected invertebrates, vertebrates, plants, and protists.

Evaluate the scientific evidence supporting the theory of evolution.

Assess the impacts of human activities on marine organisms and ecosystems

Analyze the scientific method as an indispensable tool of investigation

Examine historical roles and contributions of explorers and marine biologists

CSLOs

Appraise the physical and chemical properties of the ocean and investigate their impact on marine life.

Expected SLO Performance: 0.0

Compare and contrast the anatomy, behavior, reproduction, and ecology of selected marine invertebrates, vertebrates, plants, and protists.

Expected SLO Performance: 0.0

Examine marine biology as a branch of the biological sciences and its relation to the scientific field and how the scientific method is used.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Examine marine biology as a branch of the biological sciences and its relation to other scientific fields.
 - 1. Analyze the characteristics of science
 - 2. Examine biological fields, including sub-disciplines with emphasis on marine biology, including career opportunities
 - 3. Assess the contributions to scientific studies by cultural, ethnic and gender groups
- B. Appraise and analyze the components and interrelationships of communities, ecosystems, and the biosphere
 - 1. Diagram and examine trophic pyramids, energy pyramids, food chains and food webs
 - 2. Analyze the flow of energy and cycling of materials in ecosystems
 - 3. Compare and contrast the diversity of life in different marine ecosystems
 - 4. Analyze the role of ocean circulation on global climate and the corresponding effects on the distribution of marine organisms.
- C. Appraise the physical and chemical properties of the ocean.
 - 1. Examination of bottom topography, including shelf, slope, trenches, and submarine volcanic islands
 - 2. Compare chemical and physical characteristics of marine habitats and their effects on marine life.
 - 3. Examine unique traits of water and its relationships to life
 - 4. Compare osmotic effects on life and how organisms maintain homeostasis
- D. Examine the structure of prokaryotic and eukaryotic cells and cellular processes
 - 1. Examine cell structure and function of prokaryotes and eukaryotes
 - 2. Examine cellular processes including, but not limited to: osmosis, diffusion, mitosis, meiosis, photosynthesis, respiration, and digestion
 - 3. Examine levels of biological organization demonstrated by organisms
 - 4. Assess sexual and asexual strategies of reproduction in plants and animals
 - 5. Discriminate between the structure and the evolutionary history of eukaryotic and prokaryotic life forms and the kingdoms of life associated with these domains.
- E. Compare and contrast the anatomy, behavior, reproduction, and ecology of selected invertebrates, vertebrates, plants, and protists.
 - 1. Examine plant-like organismal diversity and adaptations among marine photosynthesizers
 - 2. Assess geographic and vertical distribution in the sea of marine photosynthesizers
 - 3. Assess anatomical adaptations of multicellular marine photosynthesizers
 - 4. Examine uses of multicellular marine photosynthesizers by different human cultures
 - 5. Compare similarities and differences within the invertebrates
 - 6. Compare similarities and differences within the vertebrates
 - 7. Assess the development of vertebrates based on:
 - a. Importance of behavior and feeding strategies
 - b. Variations in locomotion, social organization, and reproductive strategies
 - c. Variations in anatomy and locomotor adaptations of vertebrates including reptiles, birds, fish and mammals
 - d. Geographic distribution and ecology of vertebrate animals
- F. Evaluate the scientific evidence supporting the theory of evolution.
 - 1. Compare and contrast scientific evidence such as the fossil record, the molecular record, the anatomical record including homologous and analogous structures in relation to marine organisms.
 - 2. Analyze natural selection, the process that has led to the diversification of life forms and the development of adaptations of marine organisms to their environment and their interdependent relationships
- G. Assess the impacts of human activities on marine organisms and ecosystems
 - 1. Examine the sea as an important resource for humans
 - 2. Assess impacts of introduced species on marine ecosystems.
 - 3. Examine the methods of aquaculture, mariculture, and sea ranching for the production of fish and shellfish
 - 4. Examine the human-produced causes of depletion of the populations of some marine species (e.g. over-fishing, oil spills)
 - 5. Examine and discuss the causes and impacts of global climate change on marine ecosystems
- H. Analyze the scientific method as an indispensable tool of investigation
 - 1. Formulate and solve problems utilizing the scientific method, including hypothesis development, prediction, and experimentation using examples from marine science
 - 2. Evaluate the terms "hypothesis" and "theory" in common and scientific language
- I. Examine historical roles and contributions of explorers and marine biologists
 - 1. Assess the contributions of explorers to the field of marine biology, such as James Cook and Jacques Cousteau
 - 2. Assess the contributions of biologists to the field of marine biology, such as Charles Darwin, Joseph Connell, Dr. Joan Murrell Owens and Dr. Eugenie Clark
 - 3. Examine advances in technology for ocean exploration

Lab Outline

- A. Scientific Method
- B. Metric System
- C. Introduction to the Light and Dissecting Microscopes
- D. Ocean Chemistry
- E. Protist/Plant Diversity
- F. Osmosis
- G. Animal Diversity/Dissections
- H. Plankton
 - I. Ecology
- J. Rocky Intertidal Field Trip
- K. Sandy Beach Field Trip
- L. Monterey Bay Aquarium Field Trip
- M. Estuary Field Trip

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value
Corequisite(s): No Value
Advisory(ies): ENGL C1000 or ENGL C1000H or ESL D005.
Advisory(ies) - Other: No Value
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: No Value
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): (See general education pages for the requirements this course meets.)
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. Reading assignments require students to engage with culturally and rhetorically diverse texts, including sources that encourage students to connect course content to their own backgrounds and experiences (Assignments, A). Writing assignments also involve critical evaluation of diverse sources of information on marine biology-related topics (Assignments, B). Outline section A.3 requires students to

assess the contributions to scientific studies by cultural, ethnic, and gender groups, directly engaging with diverse perspectives in scientific discourse.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Writing assignments require critical evaluation of sources on marine biology-related topics, and are specifically designed to encourage students to connect course content to their own backgrounds and experiences (Assignments, B).

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

Writing assignments require critical evaluation of sources of information on marine biology-related topics, which necessitates proper citation and attribution of those sources (Assignments, B). The oral presentation, evaluated by rubric, also requires students to draw on and properly attribute sources when presenting on a marine biology topic (Methods of Evaluation, D).

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Writing assignments require critical evaluation of sources on marine biology-related topics, inherently demanding that students distinguish between, compare, and evaluate differing viewpoints and claims (Assignments, B). The oral presentation assignment specifically encourages students to connect course content to their own backgrounds and experiences, bringing diverse personal perspectives into academic discourse (Assignments, D). Outline section A.3 directly asks students to assess contributions to scientific studies by cultural, ethnic, and gender groups, requiring evaluation of multiple perspectives within science. Outline section F asks students to evaluate scientific evidence supporting the theory of evolution, requiring students to compare and contrast multiple lines of evidence and distinguish scientific perspectives from non-scientific ones. Outline section G asks students to assess the impacts of human activities on marine ecosystems, including topics like overfishing, oil spills, aquaculture, and global climate change — all of which involve weighing competing economic, environmental, and cultural perspectives.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

The course defines marine biology as a discipline rooted in the broader biological sciences while establishing its own distinct scope: "Examine marine biology as a branch of the biological sciences and its relation to other scientific fields" (Course Outline, A). Core concepts span the physical and biological dimensions of the ocean. For example, "Appraise the physical and chemical properties of the ocean" (Course Outline, C). At the organismal level, the discipline is defined by "Compare and contrast the anatomy, behavior, reproduction, and ecology of selected invertebrates, vertebrates, plants, and protists" (Course Outline, E), and is grounded in evolutionary theory: "Evaluate the scientific evidence supporting the theory of evolution" (Course Outline, F). Finally, the scope extends to human impact and applied science: "Assess the impacts of human activities on marine organisms and ecosystems" (Course Outline, G).

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Oral Communication: One example of how this course fosters oral communication is through the "Oral presentation requiring analytical and interpretive skills evaluated using a rubric" (Methods of Evaluation, D). Written Communication: One example of how this course fosters written communication is through the "Written assignments and laboratory reports requiring analytical and interpretive skills" (Methods of Evaluation, C). Collaborative Exercises: One example of how collaboration is fostered in this course is through the "Cooperative performance of laboratory experiments and exercises, with small group discussions of experimental results followed by written reports of results and conclusions" (Assignments, C).

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Critical thinking is stimulated through the scientific method as a framework for inquiry: "Formulate and solve problems utilizing the scientific method, including hypothesis development, prediction, and experimentation using examples from marine science" (Course Outline, H.1). This is reinforced through assessments, such as the "Midterm exams and final exam, testing comprehension and requiring synthesis and application of course material" (Methods of Evaluation, A).

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

The course directly addresses diverse perspectives by requiring students to "Assess the contributions to scientific studies by cultural, ethnic and gender groups" (Course Outline, A.3) and to "Assess the contributions of biologists to the field of marine biology, such as Charles Darwin, Joseph Connell, Dr. Joan Murrell Owens and Dr. Eugenie Clark" (Course Outline, I.2). This is further reinforced through assignments, such as an "Oral presentation and discussion on a topic in marine biology which encourages students to connect course content to their own background and experiences" (Assignments, E).

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Global Context: One example of how this course provides global context is through the topic of climate change, "Examine and discuss the causes and impacts of global climate change on marine ecosystems" (Course Outline, G.5). Historical Context: Historical context is established through "Examine historical roles and contributions of explorers and marine biologists" (Course Outline, I), specifically requiring students to "Assess the contributions of explorers to the field of marine biology, such as James Cook and Jacques Cousteau" (Course Outline, I.1).

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Real-World Applications: The course connects concepts to real-world contexts through "Assess the impacts of human activities on marine organisms and ecosystems" (Course Outline, G) and "Examine the sea as an important resource for humans" (Course Outline, G.1).

Hands-On Applications: Hands-on learning is provided through "Cooperative performance of laboratory experiments and exercises, with small group discussions of experimental results followed by written reports of results and conclusions" (Assignments, C) and "Field Trips which include data collection and interpretation" (Assignments, D).

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
3/16/2026	Basic Course Information	Course Description	Suggested	Consider revisions to emphasize welcoming, student-centered language and minimizes the use of impersonal, course-centered language, and describe the knowledge, skills, and abilities students will gain upon the completion of the course.	Y, revised course description.
3/16/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y, I have found some additional texts that better reflect diverse authors and voices that would be relevant for students. Thank you for your suggestion! I have edited the DEI statement accordingly.
3/16/2026	Specifications	Assignments	Suggested	Do any assignments do one of the following: (1) provide students with choices in how they demonstrate proficiency; (2) encourage students to connect course content to their own life, background, and experiences; (3) provide students the opportunity to revise their workbased on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment(s). If not appropriate, let me know in the initiator response box.	Y, edited assignments accordingly.
3/16/2026	Specifications	Methods of Evaluation	Suggested	For any of these methods of evaluation, is it possible to provide examples of strong and/or successful assignments to clarify expectations for all students? If appropriate, please consider adding to the relevant evaluation method. If not appropriate, please disregard.	I considered this, but don't feel that this is appropriate. Thank you!
3/16/2026	Outline	Course Outline	Suggested	Consider minor revisions/additions to this outline to reflect on inequities specific to the course subject. If not appropriate, let me know in the initiator response box (also let me know if the outline is already doing this).	Y, I made some minor edits to the outline, specifically in I.2 to better reflect inequities specific to marine biologists from diverse backgrounds. The outline already touched a bit on this in A.3, as well as in Section G. Thank you!

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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4/8/26	De Anza GE Form	Criteria 1-6	Required	Please add response for GE criteria 1-6	Y
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/21/26	Matrix A	All that apply	Required	Complete for your English advisory	Y
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO
Sort ID (00 < 10; 0 < 100) BIOL 013
Course Status Non-substantial
Course Characteristics NA
Cross-Listed/Related Course Information NA
Cross-Listed/Related Course ID's No Value
DL Approval Date (MM/DD/YYYY) No Value
Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/01/2026

BIOLD045. : Introduction to Human Nutrition

General Information

Faculty Initiator:	Anna Miller
Attachments:	ReqAdv_G_BIOL_45_2027F.pdf Online_BIOL_45_2027F.pdf
Course ID (CB01A and CB01B) :	BIOLD045.
Short Course Title:	INTRO HUMAN NUTRITION
Course Title (CB02) :	Introduction to Human Nutrition
Department:	BIOL - Biology
Effective Term:	Fall 2027
TOP Code (CB03) :	(1306.00) Nutrition, Foods, and Culinary Arts
CIP Code:	(19.0501) Foods, Nutrition, and Wellness Studies, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000524533
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course is an introduction to the <i>science</i> of human nutrition, with a focus on medical aspects of nutrition. It will support students who are pursuing a career in the health professions. It covers the chemical classification of nutrients, their functions within the human body and the effects of nutritional deficiencies and excesses. Students will non-judgmentally explore their own food choices and the role of diet in the development of chronic diseases.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Online
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Biological Sciences
Discipline 2:	Nutritional Science/ Dietetics
Discipline 3:	Health
FSA:	FHDA FSA - BIOLOGICAL SCIENCES

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This is a course in nutrition targeted for the health professional; it is a prerequisite for the Nursing and Dental Hygiene programs. It covers human nutrition with an emphasis on the biochemical and physiological connections. The student learns the six classes of nutrients, the spectrum of nutritional status states, energy metabolism, energy balance, and the role of diet in health and disease. This course belongs on the AA Liberal Arts Degree. This course is UC and CSU transferable.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

Gillian Shultz

Foothill Course ID

BIOL F045.

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The COURSE DESCRIPTION is written in student-centered language. The DIET ASSIGNMENT is not only personally relevant, it is applicable to their future careers in health care (Learning what they learn will transfer to their ability to support future patients who need dietary modifications). Students receive feedback after Parts 1 & 2 with an opportunity to revise their work and resubmit. To complete Part 3 students connect the concepts learned in the course to their dietary analysis and reflect on their food choices and their future health. NOTE: Students who have struggled with eating disorders can be triggered by tracking what they eat. Students are informed (on the syllabus and on Canvas) that should they be concerned about a potential trigger, they are free to complete an alternate Diet Assignment that does not include tracking their own food intake. This has worked very well. In addition to the Diet Assignment, students participate on graded ASYNCHRONOUS DISCUSSIONS. The discussions are not academic in content. They give students an opportunity to connect to their classmates and explore the cultural influences of their food choices, what food means to them, and reflect on life experiences centered around food and nutrition. TEXTBOOKS: Unfortunately, there is no OER textbook that adequately supports this course (there are just a few comprehensive OER textbooks on nutrition; none covers the topics at a level that is needed for this course). But OER resources are regularly checked to see what's newly available. The textbook that is used meets accessibility standards, incorporates inclusive language and easy-to-read and follow graphics. There are useful appendices and a thorough glossary. The photos, graphics and text wordage reflects diverse cultures, diverse ages, and diverse perspectives on food choices, health and disease. The METHODS of INSTRUCTION support equity, accessibility and inclusiveness, starting with the syllabus: a dynamic web-based "liquid syllabus" which has a strong emphasis on welcoming, student-centered language and inclusiveness. Active learning, collaborative learning and scaffolding are incorporated to reach students with diverse learning styles. Case studies are included that show diverse cultures, genders, and socio-economic backgrounds. Through regular communications (written, video, audio, in person), in class or asynchronous discussions, flexible deadlines and accommodations, and student-centered language, an inclusive

community is nurtured. Exam reviews, live and video tutorials (to assist with the tasks that make up the Diet Assignment), and "work-study" sessions (to work on the exam study guides; to work on the diet assignment) with the instructor present, are offered on Zoom throughout the quarter. Helpful practice quizzes (ungraded) are offered each week. Explanations of the correct answer become visible after a student takes the practice quiz.

METHODS of EVALUATION: The objective exam questions are written to reflect, when appropriate, various cultures (case studies, foods, etc). They are also written with equity in mind (language, content). Every attempt is made to remove implicit biases. There is a mix of low and high stake assessments (quizzes, discussions, diet assignment, exams) Students will have a clear view of what is expected of them for each exams, through: 1. An extensive fill-able Exam Study Guide (google.doc). 2. An Announcement sent one week before each exam, with a ROADMAP for the exam. The roadmap includes 8 steps (concrete actions) to be well prepared. Students will also have a clear view of what is expected of them for each part of the Diet Assignment through comprehensive Checklists for each part, and the RUBRIC used for each part. The COURSE OUTLINE includes the aspects of culture, ethnicity, race, gender and age as is appropriate to the topics. For example: F3: Causes of obesity: physiological, hereditary, environmental, gender, age, social and culture factors. F4: Methods of measuring obesity, the strengths and weaknesses of the BMI (body mass index), distribution of body fat and the health impact of the location of body fat, bias of race in BMI as an assessment H3: Role of genetic influences on the risk of chronic disease and the interrelationship between genetic predisposition and lifestyle choices H4: How beliefs, attitude, culture, the media, age, gender and education influence lifestyles that impact health: food choices, exercise, smoking, etc.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒ Course is part of a program

Associated Program

Award Type

Active

LVN Transition to RN

Associate in Science (A.S.) Degree

Fall 2025 to Fall 2026

LVN Transition to RN

Associate in Science (A.S.) Degree

Fall 2026

Liberal Arts (Science, Math and Engineering Emphasis)

Associate in Arts (A.A.) Degree

Fall 2025 to Fall 2026

Liberal Arts (Science, Math and Engineering Emphasis)

Associate in Arts (A.A.) Degree

Fall 2026

Registered Nurse (RN)

Associate in Science (A.S.) Degree

Fall 2025 to Fall 2026

Registered Nurse (RN)

Associate in Science (A.S.) Degree

Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4
Maximum Credit Units	4
Total Course In-Class (Contact) Hours	48
Total Course Out-of-Class Hours	96
Total Student Learning Hours	144

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	0
NA	0
Total	48
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids Discussion of assigned reading Quiz and examination review performed in class Homework and extended projects Discussion and problem solving performed in class Collaborative learning and small group exercises

Assignments

A. Reading: assigned readings from the text
B. Writing

1. Write a comprehensive nutritional assessment of student's diet, based on a 3-day dietary analysis.
2. Write a report evaluating how his/her diet protects or increases the risk of the prevalent chronic diseases.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. At least three objective midterm exams, and a final exam to test content from lecture and reading
- B. Written report, graded according to a rubric, showing ability to interpret the results of the computer analysis to accurately assess the nutritional adequacy of the macro- and micronutrients.
- C. Written report, graded according to a rubric, demonstrating ability to effectively apply the knowledge of dietary factors that impact the chronic diseases to the student's own diet and risk for these diseases

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Whitney, Eleanor, and Sharon Rolfes	Understanding Nutrition	Cengage Publisher	17th ed., 2027	

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Define different types of human nutrition research studies: epidemiological/population, case controlled, prospective, cohort, cross sectional, and experimental/clinical.

Explain the scientific basis for the development of various food and nutrient recommendations and guidelines

Outline the basic steps of nutrient assessment of diets for individuals and populations

Describe the chemical structure and the biological functions of macronutrients and list major food sources from a variety of cultural groups for each.

Outline the steps of the metabolism of glucose, amino acids, and fatty acids to yield energy.

Describe energy balance and its role in body weight; negative and positive energy balance and consequences on weight

Describe the major roles of vitamins and minerals and relate the effects of deficiencies and excesses to their metabolic function.

Analyze critically the role of diet and lifestyle choices in development of prevalent chronic diseases.

Explain the approach of "alternative nutrition" and list the factors that influence the merits and risks of such therapies.

CSLOs

Demonstrate a coherent understanding of the relationship between diet and the major chronic diseases.

Expected SLO Performance: 0.0

Evaluate a meal plan or diet for meeting the criteria of a " healthy diet."

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Define different types of human nutrition research studies: epidemiological/population, case controlled, prospective, cohort, cross sectional, and experimental/clinical.
 1. Criteria that must be met for each type of study to be considered valid
 2. Role of the control group, placebo effect, investigator bias, confounding variables in experimental studies
 3. Strengths and limitations of each type of study; what information each provides; correlations vs "cause and effect" relationship
 4. Standards of research for adding to the knowledge of human nutrition
- B. Explain the scientific basis for the development of various food and nutrient recommendations and guidelines
 1. Definition of the Dietary Reference Intakes, criteria for establishing them and appropriate uses
 2. Role and use of the Dietary Guidelines for Americans and the MyPlate food plan. Examine other diet-planning guides and other national dietary guidelines (Mediterranean Diet, Vegetarian Pyramid, Asian Diet, Canada's Food Guide, etc.)
- C. Outline the basic steps of nutrient assessment of diets for individuals and populations
 1. Methods for determining food intake for populations and for individuals: National surveys, disappearance data, 24-hour recall, food records and food frequency; advantages and limitations of each
 2. Description of nutritional status assessment techniques such as anthropometric measurements, physical examination and biochemical tests; value, advantages and limitations for each technique.
- D. Describe the chemical structure and the biological functions of macronutrients and list major food sources from a variety of cultural groups for each.
 1. The mechanisms of digestion and absorption of the macronutrients
 2. The major steps in the anabolic and catabolic metabolism of glucose, fatty acids and amino acids
 - a. Carbohydrates
 1. Classification, chemical structures and food sources from a variety of cultures; the physiological and health consequences of different types of carbohydrate in the diet
 2. Digestion and absorption; prevalence, symptoms and treatment of lactose intolerance; definition and usefulness of the low FODMAP diet
 3. Major steps in anabolism and catabolism
 4. Role of insulin and glucagon on blood glucose regulation

5. Effects of fiber in all parts of the GI tract and consequences on health and disease; definition of prebiotics and probiotics and their role in health and disease
- b. Lipids
 1. Classification, chemical structures and food sources from a variety of cultures; the physiological and health consequences of different types of fat in the diet
 2. Digestion and absorption
 3. Major steps in anabolism and catabolism
 4. Classification, composition, and physiological role of the major lipoproteins
 5. Influences of diet on "good" and "bad" cholesterol in the blood; the role of diet in the development of atherosclerosis, cardiovascular disease and diabetes
- c. Proteins
 1. Chemical structures and food sources from a variety of cultures
 2. Digestion and absorption; prevalence, symptoms and treatment of intestinal disorders related to gluten
 3. Major steps in anabolism and catabolism including protein synthesis
 4. RDA and how to calculate it
 5. Health effects of protein sources, excesses and deficiencies; pros and cons of vegetarian diets
- E. Outline the steps of the metabolism of glucose, amino acids, and fatty acids to yield energy.
 1. The chemical nature of ATP and its role in energy metabolism
 2. Major steps of energy metabolism in the absorptive and post-absorptive state
 3. The components of energy expenditure: basal needs, food thermogenesis, physical activity
 4. Factors that influence basal metabolism
 5. Methods of estimating basal metabolism and total energy expenditure
- F. Describe energy balance and its role in body weight; negative and positive energy balance and consequences on weight
 1. Regulation of food intake and the role of internal and external cues
 2. Definition of obesity, overweight and underweight
 3. Causes of obesity: physiological, hereditary, environmental, gender, age, social and culture factors.
 4. Methods of measuring obesity, the strengths and weaknesses of the BMI (body mass index), distribution of body fat and the health impact of the location of body fat, bias of race in BMI as an assessment
 5. Popular and recommended treatments for obesity
 - a. Definition and characteristics of a "fad diet"
 - b. The physiological adaptation to caloric restriction
 - c. Weight loss surgery
 - d. OTC and prescription medications
 - e. Dietary supplements claimed to aid fat loss
 - f. Characteristics of a healthy weight loss diet or weight loss approach.
- G. Describe the major roles of vitamins and minerals and relate the effects of deficiencies and excesses to their metabolic function.
 1. Coenzyme role of water-soluble vitamins
 2. Ascorbic acid and B-complex vitamins; food sources, biological function, deficiency symptoms and possible effects of excesses
 3. Vitamins A, D, E and K; food sources, biological function, deficiency symptoms and possible effects of excesses
 4. Interaction of drugs, herbal supplements and vitamins
 5. Metabolic roles and food sources of electrolytes; functions of water and consequences of dehydration; suggested role of sodium and other risk factors in hypertension
 6. Metabolic roles and food sources of calcium
 - a. Hormonal control of blood calcium
 - b. Roles of diet and lifestyle in the prevention of osteoporosis
 7. Metabolic roles, deficiency symptoms and food sources of trace minerals, emphasizing the mechanisms of absorption for iron
- H. Analyze critically the role of diet and lifestyle choices in development of prevalent chronic diseases.
 1. Risk factors for the development of atherosclerosis, hypertension, diabetes, and osteoporosis and the role diet plays in the prevention of these diseases
 2. Specific dietary components as initiators, promoters and anti-promoters of cancer
 3. Role of genetic influences on the risk of chronic disease and the interrelationship between genetic predisposition and lifestyle choices
 4. How beliefs, attitude, culture, the media, age, gender and education influence lifestyles that impact health: food choices, exercise, smoking, etc.
 5. The role and use of dietary recommendations for reducing the risk of chronic diseases: The American Heart Association recommendations, the American Cancer Society recommendations, the Mediterranean Diet, and the DASH (Dietary Approaches to Stopping Hypertension) Diet.
- I. Explain the approach of "alternative nutrition" and list the factors that influence the merits and risks of such therapies.
 1. Definition of "alternative" nutrition therapies and dietary supplements.
 - a. Vitamins and minerals as medicines, herbs and other chemical components sold as dietary supplements
 - b. Popular claims, benefits, risks and appropriate uses
 2. DSHEA (Dietary Supplement Health and Education Act) and its consequences on the supplement industry
 - a. Structure function claims, real and perceived meanings
 - b. Role of the FDA (food and drug administration)
 3. Tools to evaluate nutrition claims

- a. Unbiased and biased sources of information
- b. Reliable and unreliable sources of nutrition information in the media
- 4. Criteria for evaluating alternative nutrition therapies
- 5. The role of the health care professional

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

BIOL D006C, BIOL D06CH or BIOL D040C, or equivalent with a grade of C or better

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

B. Explain the scientific basis for the development of various food and nutrient recommendations and guidelines 1. Definition of the Dietary Reference Intakes, criteria for establishing them and appropriate uses 2. Role and use of the Dietary Guidelines for Americans and the MyPlate Food Plan. Examine other diet-planning guides and other national dietary guidelines (Mediterranean Diet, Vegetarian Pyramid, Asian Diet, Canada's Food Guide, etc.) H. Critically analyze the role of diet and lifestyle choices in development of prevalent chronic diseases. 1. Risk factors for the development of atherosclerosis, hypertension, diabetes, and osteoporosis and the role diet plays in the prevention of these diseases. 2. Specific dietary components as initiators, promoters and anti-promoters of cancer 3. Role of genetic influences on the risk of chronic disease and the interrelationship between genetic predisposition and lifestyle choices 4. How beliefs, attitude, culture, the media, age, gender and education influence lifestyles that impact health: food choices, exercise, smoking, etc. 5. The role and use of dietary recommendations for reducing the risk of chronic diseases: The American Heart Association recommendations, the American Cancer Society recommendations, the Mediterranean Diet, and the DASH (Dietary Approaches to Stopping Hypertension) Diet. II I. Explain the approach of "alternative nutrition" and list the factors that influence the merits and risks of such therapies.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Assignments B. Writing 1. Write a comprehensive nutritional assessment of student's diet, based on a 3-day dietary analysis. 2. Write a report evaluating how his/her diet protects or increases the risk of the prevalent chronic diseases.

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignments B. Writing 1. Write a comprehensive nutritional assessment of student's diet, based on a 3-day dietary analysis. 2. Write a report evaluating how his/her diet protects or increases the risk of the prevalent chronic diseases.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

A. Define different types of human nutrition research studies: epidemiological/population, case controlled, prospective, cohort, cross sectional, and experimental/clinical. 1. Criteria that must be met for each type of study to be considered valid 2. Role of the control group, placebo effect, investigator bias, confounding variables in experimental studies 3. Strengths and limitations of each type of study; what information each provides; correlations vs "cause and effect" relationship 4. Standards of research for adding to the knowledge of human nutrition F. Describe energy balance and its role in body weight; negative and positive energy balance and consequences on weight 1. Regulation of food intake and the role of internal and external cues 2. Definition of obesity, overweight and underweight 3. Causes of obesity: physiological, hereditary, environmental, gender, age, social and culture factors. 4. Methods of measuring obesity, the strengths and weaknesses of the BMI (body mass index), distribution of body fat and the health impact of the location of body fat, bias of race in BMI as an assessment 5. Popular and recommended treatments for obesity H. Analyze critically the role of diet and lifestyle choices in development of prevalent chronic diseases. 1. Risk factors for the development of atherosclerosis, hypertension, diabetes, and osteoporosis and the role diet plays in the prevention of these diseases 2. Specific dietary components as initiators, promoters and anti-promoters of cancer 3. Role of genetic influences on the risk of chronic disease and the interrelationship between genetic predisposition and lifestyle choices 4. How beliefs, attitude, culture, the media, age, gender and education influence lifestyles that impact health: food choices, exercise, smoking, etc. 5. The role and use of dietary recommendations for reducing the risk of chronic diseases: The American Heart Association recommendations, the American Cancer Society recommendations, the Mediterranean Diet, and the DASH (Dietary Approaches to Stopping Hypertension) Diet. I. Explain the approach of "alternative nutrition" and list the factors that influence the merits and risks of such therapies. 1. Definition of "alternative" nutrition therapies and dietary supplements. 2. DSHEA (Dietary Supplement Health and Education Act) and its consequences on the supplement industry 3. Tools to evaluate nutrition claims a. Unbiased and biased sources of information b. Reliable and unreliable sources of nutrition information in the media 4. Criteria for evaluating alternative nutrition therapies

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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03/17/2026 Specifications Assignments	Suggested	The quizzes are not graded -- they are practice quizzes. The scores are not included in the determination of the course grade. Therefore, I assumed they should not be included under assignments/evaluation. The exam REVIEWS are not an assignment or an evaluation method, so I don't think they should be listed under assignments or methods of evaluation. As is written in the DEI section, "Students receive feedback after Parts 1 & 2 (of the Diet Assignment) with the opportunity to revise and resubmit". This is not possible with Part 3 since comes due in the very end of the quarter and there is no time. This is not included under Evaluation because I view this something that is up to the instructor and not an absolute requirement, since all instructors might not be able to offer this opportunity (ie a full time instructor with 200 students vs a part time instructor with 45) There is no peer feedback because a person's diet/food choices is VERY personal and many students do NOT feel comfortable sharing this information with others. The Diet Assignment includes self reflection, as noted in the DEI statement. Different instructors will design the finer points of the Diet Assignment with their own emphasis and focus. The methods of evaluation listed is the minimum, and is very straightforward (exams and the diet assignment), by design. The Diet Assignment is required, but there is tremendous leeway in how it is developed for a given class.
03/17/2026 Specifications Methods of Evaluation	Suggested	The DEI statement mentions "There is a mix of low and high stake assessments (quizzes, discussions, diet assignment, exams)", and quiz and exam review are noted as a method of instruction, but are not listed under assignments or evaluation methods. Consider adding to assignments/evaluation methods for clarity. Also, do any assignments provide students to revise their work based on instructor feedback, peer feedback, or self-reflection? If so, consider noting for the relevant assignment. If not appropriate, let me know in the Initiator Response Box. The DEI statement does a great job of talking about scaffolding for evaluation, consider adding a few more details into the evaluation methods to make this clear throughout the COR. If not appropriate, let me know in the Initiator Response Box. This permits instructors to create tasks within the Diet Assignment that fit their unique teaching style, talents and experiences. FYI: additional assignments, projects, activities, tasks, can be included at the discretion of the instructor. Those possibilities are not included since they would not be required for all instructors who teach Bio 45.

Stage 5: De Anza General Education					
No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/22/26	Matrix A	All that Apply	Required	Complete for your English advisory	
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO
Sort ID (00 < 10; 0 < 100)
BIOL 045
Course Status
Non-substantial
Course Characteristics
NA
Cross-Listed/Related Course Information
NA
Cross-Listed/Related Course ID's
No Value
DL Approval Date (MM/DD/YYYY)
No Value
Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

BUSD057. : Human Resource Management

General Information	
Faculty Initiator:	Sandra Spencer
Attachments:	Online_BUS_57_2026F.pdf
Course ID (CB01A and CB01B) :	BUSD057.
Short Course Title:	HUMAN RESOURCE MGMNT
Course Title (CB02) :	Human Resource Management
Department:	BUS - Business
Effective Term:	Fall 2027
TOP Code (CB03) :	(0505.00) *Business Administration
CIP Code:	(52.0201) Business Administration and Management, General.
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000617525
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course introduces students to the foundational knowledge and practical skills used in human resource management. Students will learn how to recruit, select, develop, and support employees while navigating legal, ethical, and organizational considerations. Emphasis is placed on building equitable and inclusive workplace practices that support employee well-being and organizational effectiveness. Upon completion, students will be able to apply human resource concepts related to staffing, training and development, compensation and benefits, and workplace diversity to real-world organizational settings.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Online
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements	
Discipline 1:	Business
Discipline 2:	Management
Discipline 3:	No value

FSA:

• FHDA FSA - GENERAL BUSINESS

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is transferable to CSU. It is required for students seeking to earn De Anza College's AA degree in Management. The course provides students with an understanding of Human Resources (HR) practices (such as recruiting, performance assessment, and setting compensation) and how they affect employee performance and the competitiveness of the firm.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Basic Course Information – Course Description. In addition to the course description indicating students will learn about fundamental components of Human Resource (HR) functions, it also specifically states that “It will focus on understanding and applying various roles of human resources (recruitment, ethical and legal issues, selection, assessment and development, compensation, benefits) provided to employees and the organization to meet individual, organizational diversity and societal objectives.” Specifications – Assignments. Assignments include options that recognize the needs of a diverse group of students. They integrate DEI principles, particularly as related to course topics of focus such as the ethical and legal environment of HR, employee training and development, managing global HR challenges, etc. Discussions provide opportunities for classmates to share the diverse perspectives of their lived experiences and learn from one another. Students are encouraged to bring their cultural and unique perspectives to all class assignments and regularly do. An example of an assignment with an explicit DEI focus is a discussion in which students must draw upon course HR principles and learning to facilitate resolution to a presented dilemma among a diverse global employee team. As this is a discussion assignment, the conversation among students representing their diverse perspectives makes for a fertile learning opportunity for all. Specifications – Examples of Primary Texts and References. Course materials prioritize equitable access and inclusive learning by incorporating Zero Textbook Cost (ZTC) resources and content that reflects diverse workplace experiences. Selected texts use accessible language, define technical terminology, and include examples that promote understanding of equity, diversity, and inclusion in human resource practices. Topics related to DEI are represented throughout the primary textbook (Fundamentals of Human Resource Management, by Noe, Hollenbeck, Gerhart and Wright) in relation to topics

included in the course such as competitive advantage, HR management practices, outreach and recruitment, training, etc. There are also chapters that specifically place great emphasis on DEI principles - 1) Providing Equal Employment Opportunity and a Safe Workplace, and 2) Managing Human Resources Globally. In these chapters there is depth of discussion of DEI practices and how they create workplace efficiencies and strengths. The legal consequences of not adhering to laws related to federal policy of protected classes, safety, and harassment and hostile work environment are also covered. As a supplement, various videos, readings, and other resources are also provided which embrace and represent DEI principles. Both resources support inclusive teaching practices and align with Universal Design for Learning (UDL) by offering multiple ways for students to engage with course content. Specifications – Methods of Instruction. Instructional methods address multiple learning styles and include student application of their own lived experiences. Relevant media used in class (such as videos, articles, etc.) include voices of BIPOC, LGBTQ+ and other marginalized communities in focusing on contemporary HR challenges. Attention is paid to make sure course content is available in various formats to best meet the needs of diverse learners. Specifications – Methods of Evaluation. While additional methods of equitable evaluation are always being considered and added to the course, at this time the following methods are in use: rubrics and criteria to make assignment grading clear; student ability to revise and resubmit some assignments; student self-evaluation of learning via regular instructor check-ins; diverse representation in course materials; and analyzing equity gaps via course level data provided by the College each quarter. Outline – Course Outline. The course outline specifically includes focus on the following: 1) Appraise the Ethical and Legal Environment (types of discrimination, current issues regarding diversity, Equal Employment Opportunity legislation and protected classes, valuing diversity, and the role of HR in creating an equitable workplace), 2) Contrast Training Methods and Delivery Options (characteristics of successful diversity efforts; providing diversity training including legal awareness, cultural awareness and sensitivity training), and 3) Analyze Ways to Manage HR Globally (managing employees in a global context).

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒ Course is part of a program

Associated Program

Award Type

Active

Business Administration

Certificate of Achievement (COA)

Fall 2024 to Fall 2026

Business Administration

Certificate of Achievement (COA)

Fall 2026

Business Administration

Associate in Arts (A.A.) Degree

Fall 2025 to Fall 2026

Business Administration

Associate in Arts (A.A.) Degree

Fall 2026

Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Management	Associate in Arts (A.A.) Degree	Fall 2026
Management	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Management	Certificate of Achievement (COA)	Fall 2026
Marketing Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Marketing Management	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to CSU only

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	5
Maximum Credit Units	5
Total Course In-Class (Contact) Hours	60
Total Course Out-of-Class Hours	120
Total Student Learning Hours	180

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	5	10
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	60
Laboratory	0
NA	0
Total	60
Course Out-of-Class Hours	
Lecture	120
Laboratory	0
NA	0
Total	120

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
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No Value

No Value

No Value

No Value

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
Collaborative learning and small group exercises
Homework and extended projects
Case study Analysis
Quiz and examination review

Assignments

- A. Required reading from the textbook and supplemental sources
- B. Practice quizzes to allow students to self-assess learning of course concepts and theories.
- C. Analysis and discussion of Human Resource scenarios and case studies to develop critical thinking skills, and to apply course concepts and theories.
- D. Reflective essays, exercises, and homework assignments analyzing a Human Resource situation from the students' own experiences, to apply course concepts, and assess related knowledge and skills.
- E. Research paper in which students examine an HR topic and its application to a real-world HR

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Quizzes to assess depth of understanding and application of course content on chapters covered for each exam.
- B. Midterm and final examination. Criteria used are depth of understanding and application of course content on chapters covered.
- C. Reflective essays and exercises which demonstrate comprehension and application of course concepts and assessment of related learning.
- D. Participation in class discussion of Human Resources scenarios and case studies to progressively demonstrate ability to critically evaluate the situation and apply course concepts and theories.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Noe, Raymond A., John R.Hollenbeck, Barry Gerhart, Patrick M. Wright	"Fundamentals of Human Resource Management"	New York, NY: McGraw- Hill/Irwin, Inc.	2024, 9th ed.	9781265803025
University of Minnesota Libraries Publishing (anonymous author)	Human Resource Management	Open Educational Resource. Open Textbook Library and Saylor Academy	March 22, 2016 (adaptation of a 2011 original work)	13: 978-1-946135-11-7

Suggested Reading List

Reading List	Wall Street Journal, Business Week, Fortune, Forbes, Harvard Business Review and local newspapers.
May include, but are not limited to	No value
Reading List	Society for Human Resource Management (SHRM)
May include, but are not limited to	No value

Learning Outcomes

Course Objectives
Examine Human Resource Management and relate its importance to the organization.
Analyze the strategic role of human resource management.
Appraise the ethical and legal environment
Examine the analysis and design of work
Compare human resource planning and recruitment options

Compare selection and placement strategies
Contrast training methods and delivery options
Examine performance management theories
Compare employee separation and retention programs
Differentiate compensation programs/approaches
Examine employee benefits
Analyze ways to manage human resources globally
Contrast various ways to strategically manage human resource management functions

CSLOs

Examine Human Resources (HR) practices and how they affect employee performance, motivation, and the firm. Expected SLO Performance: 0

BUS - Business COA_Management	Identify management issues and apply solutions and leadership styles
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Appraise the impact of HR as a strategic partner with corporate executive leadership to achieve competitive advantage in the marketplace. Expected SLO Performance: 0

BUS - Business COA_Management	Identify management issues and apply solutions and leadership styles
----------------------------------	--

Compare HR functions to formulate critical written and oral analysis of current global HR challenges. Expected SLO Performance: 0

BUS - Business COA_Management	Identify management issues and apply solutions and leadership styles
----------------------------------	--

Outline

Course Outline

- A. Examine Human Resource Management and relate its importance to the organization.
 - 1. Roles/responsibilities of the Human Resource department
 - 2. Competencies of human resource managers.
 - 3. How the human resource function is changing.
 - 4. Competitive challenges impacting human resource management.
- B. Analyze the strategic role of human resource management.
 - 1. Understand the business/strategic models
 - 2. Roles of human resource management in providing competitive advantages
- C. Appraise the ethical and legal environment
 - 1. Legal system in the U.S.
 - 2. Types of discrimination
 - 3. Current issues regarding diversity
 - 4. Key legislation affecting HR policies
 - a. Major EEO laws and regulations
 - 1. Broad-based discrimination laws such as Title VII of Civil Rights Act 1964, Civil Rights Act of 1991, Executive Orders 11246, 11375, and 11478
 - 2. Sex and gender discrimination laws and regulations such as Pregnancy Discrimination Act of 1978, Equal Pay Act of 1963, Lilly Ledbetter Fair Pay Act of 2009 and pay equity and managing sex and gender issues, sexual orientation, nepotism, and consensual relationships and romance at work
 - 3. Types of sexual harassment, current sexual harassment issues and preventing sexual harassment
 - 4. Age discrimination laws such as Age Discrimination in Employment Act 1967 and Older Workers Benefit Protection Act
 - 5. Disability discrimination laws such as Vocational Rehabilitation Act of 1973, Americans with Disabilities Act of 1990, ADA Amendments Act, genetic bias regulations and the Genetic Information Nondiscrimination Act of 2008
 - 6. Managing other discrimination issues such as Immigration Reform and Control Act of 1986, language issues, military status protections including Vietnam Era Veterans Readjustment Assistance Act of 1974 and Uniformed Services Employment and Reemployment Rights Act of 1994, appearance and weight discrimination
 - b. Employee safety and Occupational Safety and Health Act
 - c. Government's role in providing for equal employment opportunity - EEOC and OFCCP
 - d. Businesses' role in providing for equal employment opportunity - avoiding discrimination, managing affirmative action requirements, managing racial and ethnic discrimination issues, managing sex and gender issues, managing age discrimination, providing reasonable accommodation and preventing sexual harassment
 - 5. Valuing diversity
 - 6. Management policies in support of ethical workplace
 - 7. Role of HR in creating an ethical workplace
- D. Examine the analysis and design of work
 - 1. Work flow analysis
 - 2. Job analysis
 - 3. Job design
- E. Compare human resource planning and recruitment options
 - 1. Human resource planning process
 - 2. Human resource recruitment process
 - 3. Creating employment brand
 - 4. Technology for Recruiting
 - a. Social Media and Networking
 - b. Web-Based Recruiting Options
 - c. E-video and Recruiting
 - d. Legal Issues in Internet Recruiting
- F. Compare selection and placement strategies
 - 1. Selection method standards
 - 2. Types of selection methods
- G. Contrast training methods and delivery options
 - 1. Designing effective training activities
 - 2. Evaluating training programs
 - 3. Characteristics of successful diversity efforts and providing diversity training including legal awareness, cultural awareness and sensitivity training
 - 4. Socialization, orientation and on-boarding programs
- H. Examine performance management theories
 - 1. Purposes of performance management
 - 2. Approaches of managing performance
 - 3. Diagnosing performance problems

4. Managing employee performance
5. Developing and implementing a system that meets legal guidelines
6. Career management and development planning systems
7. Contrast employee development programs/practices
8. Relationship between development, training and careers
9. Approaches to employee development
- I. Compare employee separation and retention programs
 1. Managing involuntary turnover
 2. Managing voluntary turnover
- J. Differentiate compensation programs/approaches
 1. Developing pay levels
 2. Equity theory and fairness
 3. Government regulation of employee compensation
 4. How pay influences the labor force
 5. Managerial and executive pay
- K. Examine employee benefits
 1. Reasons for benefits growth
 2. Benefit programs
 3. Managing benefits
 4. General regulatory issues
- L. Analyze ways to manage human resources globally
 1. Current global challenges
 2. Factors affecting human resource management in global markets
 3. Managing employees in a global context
- M. Contrast various ways to strategically manage human resource management functions
 1. Building the human resource strategy
 2. Measuring human resource effectiveness
 3. Improving human resource management effectiveness
 4. Software applications for human resource management
 5. Future for human resource professionals

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

Assignments. C. Reflective essays and exercises. Students develop analytical responses to topics such as ethical workplace practices, discrimination laws, diversity management, recruitment strategies, performance management, and compensation systems. • Assignment: D. Participation in class discussion of Human Resources scenarios and case studies. Students to identify workplace issues and formulate analytical viewpoints and solutions using HR theories and concepts. • Course Outline. B. Analyze the strategic role of human resource management. Provides opportunities for analytical writing on competitive advantage and HR strategy. • Course Outline. C. Appraise the

ethical and legal environment. Content supports development of analytical essay topics related to employment law, discrimination, ethics, and diversity.

Objective 3: Compose and support thesis statements for analytical essays.

Assignments. C. Reflective essays and exercises. Students compose written analyses supporting positions regarding HR policies, legal compliance, workplace ethics, employee management, and organizational effectiveness using evidence from course materials. • Methods of Evaluation. C. Reflective essays and exercises. Students are evaluated on their ability to support conclusions and apply HR concepts and theories in writing. • Course Outline. H. Examine performance management theories and M. Contrast various ways to strategically manage human resource management functions. Provides content requiring students to support arguments regarding organizational strategy and employee performance practices.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

Assignments. C. Reflective essays and exercises. Require students to organize ideas logically while explaining HR concepts, legal requirements, and workplace practices. • Assignments. D. Participation in class discussion of Human Resources scenarios and case studies. Students present organized analyses and apply supporting evidence to workplace situations. • Methods of Evaluation. C. Reflective essays and exercises. Assessment includes clarity of analysis, organization, and application of HR theories.

Objective 5: Identify and practice writing for different audiences and purposes.

Assignments. C. Reflective essays and exercises. Students write analytical responses for academic purposes addressing HR issues and organizational concerns. • Assignments. D. Participation in class discussion of Human Resources scenarios and case studies. Students communicate from management, employee, and organizational perspectives in professional contexts. • Course Outline. E. Compare human resource planning and recruitment options and H. Examine performance management theories. Provides professional workplace contexts requiring audience-specific communication and analysis.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

Assignments. C. Reflective essays and exercises. Students use comparison, evaluation, cause-and-effect analysis, persuasion, and problem-solving strategies when analyzing HR policies, legal issues, and organizational practices. • Assignments. D. Participation in class discussion of Human Resources scenarios and case studies. Students defend conclusions and apply evidence-based reasoning to HR situations and ethical dilemmas. • Course Outline. C. Appraise the ethical and legal environment and L. Analyze ways to manage human resources globally. Content supports analytical and persuasive writing strategies related to diversity, ethics, and international HR management.

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

Assignments. C. Reflective essays and exercises. Students engage in drafting, organizing, revising, and refining written analyses related to Human Resource Management concepts and workplace scenarios. • Methods of Evaluation. C. Reflective essays and exercises. Provide opportunities for instructor feedback and revision of written work demonstrating comprehension and application of course material.

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Assignments. C. Reflective essays and exercises. Students compose increasingly sophisticated analyses addressing strategic HR management, legal compliance, diversity, compensation, training, employee retention, and global HR challenges. • Assignments. D. Participation in class discussion of Human Resources scenarios and case studies. Students progressively develop their ability to critically evaluate complex workplace situations and organizational issues. • Course Outline. A–M. Course topics progress from foundational HR concepts to advanced strategic and global HR management applications requiring increasingly complex analytical writing.

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Assignments. C. Reflective essays and exercises. Written assignments are evaluated for grammar, sentence structure, organization, clarity, and professional writing mechanics. • Methods of Evaluation. A. Quizzes and B. Midterm and final examination. Requires students to communicate understanding of HR concepts using appropriate written language conventions. • Assignments. D. Participation in class discussion of Human Resources scenarios and case studies. Reinforces use of appropriate professional and academic communication skills and require substantive contributions that demonstrate an understanding of the key issues involved, provide new insights and/or present new ideas.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.
No Value
Objective 3: Explore functions.
No Value
Objective 4: Develop linear function models.
No Value
Objective 5: Use systems of two linear equations to solve real world problems.
No Value
Objective 6: Use linear inequalities in one variable to solve real world problems.
No Value
Objective 7: Examine exponential expressions and develop exponential function models.
No Value
Objective 8: Examine logarithmic expressions and develop logarithmic function models.
No Value
Objective 9: Develop quadratic function models to solve problems.
No Value
Objective 10: Investigate the characteristics of rational expressions.
No Value
Objective 11: Develop skills to work with radical expressions.
No Value

E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.
No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value
Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
3/26/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to use welcoming, student-centered language and minimize the use of impersonal, course-centered language, and to describe the knowledge, skills, and abilities students will gain upon the completion of the course	Y

3/26/2026 Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y. A review of available Open Educational Resources identified a representative OER text (<i>Human Resource Management</i>) that aligns with course objectives and provides comprehensive coverage of core HF topics. It supports student access by being freely available online (Zero Textbook Cost). The currently listed textbook (<i>Fundamentals of Human Resource Management</i>, 9th ed.) will be retained due to its industry relevance and supplemental resources.
3/26/2026 Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.)? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y. The selected OER text (<i>Human Resource Management</i>) supports universal design principles by: • Using clear, accessible language appropriate for diverse learners • Providing definitions and explanations of technical HR terminology • Including real-world examples that reflect diverse workplaces and perspectives • Offering flexible, digital access compatible with assistive technologies The publisher text (<i>Fundamentals of Human Resource Management</i>) also supports accessibility through: • Structured chapter organization and learning objectives • Glossaries and key term definitions • Application-based examples and case studies • Availability in multiple formats (eBook with accessibility features) Both resources support inclusive teaching practices and align with Universal Design for Learning (UDL) by offering multiple ways for students to engage with course content.

3/26/2026 Specifications Assignments	Suggested	Do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (2) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, let me know in the Initiator response box.	Y. Opportunities for student choice in demonstrating proficiency and for revision based on feedback are intentionally supported within the course design and are reflected in the DEI and instructional approach statements. These practices are not tied to specific assignments in the Course Outline of Record in order to preserve instructor flexibility in how they are implemented across sections. In alignment with Title 5 guidance, the COR establishes representative assignments and pedagogical approaches while allowing faculty to determine the specific methods and activities used to achieve course outcomes. Instructors may incorporate options for varied demonstration of learning and opportunities for revision or feedback in ways that best support their students and instructional modalities. Y. Instructors support student success by providing clear evaluation criteria, including detailed rubrics and assignment guidelines that clarify expectations and standards of performance. These tools are designed to help students understand what constitutes strong and successful work. While specific examples of assignments may be shared at the instructor's discretion, they are not prescribed in the Course Outline of Record in order to maintain flexibility across sections. This approach allows instructors to tailor instructional materials and examples to best support their students while ensuring transparency and consistency in evaluation.		
3/26/2026 Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.		
Stage 4: Articulation Officer					
No Value					
Stage 5: De Anza General Education					
No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
5/3/26	Matrix B	All that apply	Required	Please complete for your English advisory	Y

Stage 7: Dean of Online Learning

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
5/11/26	Basic Course Information	Proposed Details - Attachments	Required	Please attach Online Course Delivery request form as a .pdf file.	

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO**Sort ID (00 < 10; 0 < 100)**

BUS 057

Course Status

Substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Units/hours change appr (effect. F20)-mkct

- Requisite change appr. 1/17/23 (effect. F23).-cc
 - CCN requisite changes appr. 9/23/24 (effect. F25). -sw
-

Course Outline of Record Report

06/02/2026

BUSD065. : Leadership

General Information

Faculty Initiator:	- Tony Chang - Andrews-Bingham, Kimberlee
Attachments:	Online_BUS_65_2027F.pdf
Course ID (CB01A and CB01B) :	BUSD065.
Short Course Title:	LEADERSHIP
Course Title (CB02) :	Leadership
Department:	BUS - Business
Effective Term:	Fall 2027
TOP Code (CB03) :	(0506.00) Business Management
CIP Code:	(52.0201) Business Administration and Management, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000141898
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course will teach students to develop effectiveness in leadership situations, understand the complex challenges of leadership, and adapt leadership techniques to build successful relationships in a culturally diverse world.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Online
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Business
Discipline 2:	Management
Discipline 3:	No value
FSA:	FHDA FSA - GENERAL BUSINESS

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is transferable to CSU. This course is a core requirement for the A.A. in Management degree program. This course prepares students for work and community leadership roles by examining leadership techniques to build successful relationships in a culturally diverse world.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Basic Course Information – Course Description. In addition to the course description indicating students will learn about leadership styles and how to apply them in various leadership situations, it also specifically states that “The student will learn different techniques to build successful relationships in a culturally diverse world.” This course uses welcoming, student-centered language and minimizes the use of impersonal, course-centered language. We feel the course description is written clearly and simply. Specifications – Assignments. Assignments include options that recognize the needs of a diverse group of students. Case studies and discussions integrate DEI principles, particularly as they relate to course topics of focus such as building teams, dealing with conflict, etc. Discussions provide opportunities for classmates to share the diverse perspectives of their lived experiences and learn from one another. Students are encouraged to bring their cultural and unique perspectives to all class assignments and regularly do. An example of an assignment with an explicit DEI focus is a video case study that exposes students to the unique aspects and implications of being considered part of an “out-group” vs. and “in-group”. After analyzing the case study, students are asked to apply what they have learned to their lives through the lens of in- and out-group membership and develop strategies to most effectively integrate out-group members. No OER textbook currently exists. Faculty will continue to monitor both OER development and low-cost options. Specifications – Examples of Primary Texts and References. Topics related to DEI are represented throughout the primary textbook (Introduction to Leadership, by Peter Northouse) in relation to topics included in the course. There is also a specific chapter solely focused on “Embracing Diversity and Inclusion” that is included. As a supplement, various videos, readings, and other resources are provided that embrace and represent DEI principles. An interactive ebook option exists that provides additional

accessibility features. However, it is currently cost-prohibitive. Specifications – Methods of Instruction. Instructional methods address multiple learning styles and include student application of their own lived experiences. Relevant media used in class (such as videos, articles, etc.) include voices of BIPOC, LGBT+, and other marginalized communities in focusing on contemporary leadership challenges. Attention is paid to making sure course content is available in various formats to best meet the needs of diverse learners. Specifications – Methods of Evaluation. While additional methods of equitable evaluation are always being considered and added to the course, at this time the following methods are in use: rubrics and criteria to make assignment grading clear; student ability to revise and resubmit some assignments; student self-evaluation of learning via regular instructor check-ins diverse representation in course materials; and analyzing equity gaps via course level data provided by the College each quarter. Instructor check-ins provide robust feedback and ensures students have an understanding of what constitutes successful submissions Outline – Course Outline. The course outline specifically includes focus on the following: “Demonstrate the methods used by leaders to foster inclusion - leader-member exchange theory; in-groups, out-groups and social identity theory; discrimination, prejudice, and ethnocentrism; fostering diversity in the workplace; recruiting; socialization; and policies.”

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒ Course is part of a program

Associated Program

Award Type

Active

Business Administration

Certificate of Achievement (COA)

Fall 2024 to Fall 2026

Business Administration

Certificate of Achievement (COA)

Fall 2026

Business Administration

Associate in Arts (A.A.) Degree

Fall 2025 to Fall 2026

Business Administration

Associate in Arts (A.A.) Degree

Fall 2026

Entrepreneurship

Certificate of Achievement (COA)

Fall 2022

Entrepreneurship (In Development)	Certificate of Achievement (COA)	Fall 2027
Facility and Sustainable Building Management	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Facility and Sustainable Building Management	Certificate of Achievement (COA)	Fall 2025
Facility and Sustainable Building Management	Associate in Science (A.S.) Degree	Fall 2025
Leadership and Social Change	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Leadership and Social Change	Certificate of Achievement (COA)	Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Management	Associate in Arts (A.A.) Degree	Fall 2026
Management	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Management	Certificate of Achievement (COA)	Fall 2026
Marketing Management	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Marketing Management	Certificate of Achievement (COA)	Fall 2026

Marketing Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Marketing Management	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to CSU only

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	5
Maximum Credit Units	5
Total Course In-Class (Contact) Hours	60
Total Course Out-of-Class Hours	120
Total Student Learning Hours	180

Credit / Non-Credit Options

Course Credit Status (CB04)	Course Non Credit Category (CB22)		
Credit - Degree Applicable	Credit Course.		
Course Classification Code (CB11)	Funding Agency Category (CB23)		☐ Cooperative Work Experience Education Status (CB10)
Credit Course.	Not Applicable.		
☐ Variable Credit Course			
Weekly Student Hours		Course Student Hours	
	In Class	Out of Class	Course Duration (Weeks) 12
Lecture Hours	5	10	Hours per unit divisor 36
Laboratory Hours	0	0	Course In-Class (Contact) Hours
NA Hours	0	0	Lecture 60
			Laboratory 0
			NA 0
			Total 60
			Course Out-of-Class Hours
			Lecture 120
			Laboratory 0
			NA 0
			Total 120

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction

Methods of Instruction

- Lecture and visual aids
- Discussion of assigned reading
- Discussion and problem solving performed in class
- Quiz and examination review performed in class
- Homework and extended projects
- Case study and scenario analysis
- Guest speakers
- Collaborative learning and small group exercises

Assignments

- A. Required reading from the textbook and supplemental leadership articles.
- B. Practice quizzes to allow students to self-assess learning of course concepts and theories.
- C. Reflective essays, exercises, and homework analyzing a leadership situation from the student's own experiences, to apply course concepts, and assess leadership skills.
- D. Analysis and discussion of leadership scenarios and case studies to develop critical thinking skills, and to apply course concepts and theories

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Midterms and final exams that appraise comprehension and require synthesis and application of course material.
- B. Quizzes to assess depth of understanding and application of course content on chapters covered for each exam.
- C. Reflective essays and exercises that demonstrate comprehension and application of course concepts, and assessment of leadership skills.
- D. Participation in class discussion of leadership scenarios and case studies to progressively demonstrate ability to critically evaluate the situation and apply course concepts and theories.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Northouse, Peter	Introduction to Leadership	Sage	6th Edition, 2024	9781071884928 (paperback)
Waldman, D.; Reilly, C.	Leadership for Organizations	Flatwork	2024, Version 2.1	979-8-88794-391-4

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Determine why leadership is everyone's business.

Evaluate the interaction between the leader, the follower and the situation.

Compare and contrast leadership styles and the subsequent effects on followers.

Identify leadership traits and build strengths.

Examine leadership skills and how they are developed.

Explore the process for creating a compelling vision that inspires followers.

Examine the methods used by leaders to create a climate for strong teams.

Demonstrate the methods used by leaders to foster inclusion.

Describe methods for addressing conflict.

Illustrate the leader's role in solving problems.

Evaluate the ethics and integrity of a leader.

CSLOs

Compare, contrast and demonstrate leadership behaviors.

Expected SLO Performance: 0

BUS - Business
COA_Management

Identify management issues and apply solutions and leadership styles

Distinguish the roles, interaction and impact of the leader, the follower and the situation in the leadership model. Expected SLO Performance: 0

BUS - Business
COA_Management

Identify management issues and apply solutions and leadership styles

Outline

Course Outline

- A. Determine why leadership is everyone's business.
 - 1. Definitions of leadership
 - 2. The evolution of perspectives in leadership
 - 3. The leadership function of managers
 - 4. Global differences in leadership
- B. Evaluate the interaction between the leader, the follower and the situation.
 - 1. The process view of leadership
 - 2. The evolving role of followers in a diverse world
 - 3. Complexities in the situation
- C. Compare and contrast leadership styles and the subsequent effects on followers.
 - 1. Theory X and Y
 - 2. Authoritarian, democratic and laissez-faire styles
 - 3. Task-oriented versus relationship-oriented behaviors
 - a. Blake and Mouton's Managerial Grid model
 - b. Ohio State Leadership studies
 - c. Hersey - Blanchard Situational Leadership model
- D. Identify leadership traits and build strengths.
 - 1. Common leadership traits
 - 2. The strengths-based leadership paradigm
 - a. Developing strengths by taking a talent and investing time and building knowledge
 - b. Utilizing the strengths of followers by creating a positive environment
- E. Examine leadership skills and how they are developed.
 - 1. Administrative skills
 - 2. Conceptual skills
 - 3. Interpersonal skills
 - a. Emotional intelligence
 - b. Social intelligence
 - 4. Leadership development
 - a. the role of reflection
 - b. experiential learning through challenging assignments
 - c. mentoring and feedback
 - d. classroom and other forms of training
- F. Explore the process for creating a compelling vision that inspires followers.
 - 1. Define vision
 - 2. Characteristics of a compelling vision
 - 3. Communicating the vision effectively
- G. Examine the methods used by leaders to create a climate for strong teams.
 - 1. Establishing structure
 - 2. Enforcing norms
 - a. factors that enhance cohesiveness
 - b. groupthink
 - 3. Promoting standards of excellence
 - a. constructive feedback

- b. recognition and rewards
- H. Demonstrate the methods used by leaders to foster inclusion.
 - 1. Leader-Member Exchange theory
 - 2. In-groups, out-groups and social identity theory
 - 3. Discrimination, prejudice, and ethnocentrism
 - 4. Fostering diversity in the workplace
 - a. recruiting
 - b. socialization
 - c. policies
- I. Describe methods for addressing conflict.
 - 1. Distinguish between the relationship and content aspects of conflict
 - 2. Principled Negotiation
 - 3. Differentiation
 - 4. Fractionation
 - 5. Face-saving
 - 6. Kilmann and Thomas model of conflict-handling styles
- J. Illustrate the leader's role in solving problems.
 - 1. Path-Goal Theory
 - 2. SMART goals
 - 3. Expectancy Theory
 - 4. Motivation and involvement
- K. Evaluate the ethics and integrity of a leader.
 - 1. The six pillars of character
 - 2. The five bases of power
 - 3. Goals, actions, and honesty
 - 4. How values affect leadership

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Assignment 2: Required reading from the textbook and supplemental leadership articles.

Objective 2: Develop analytical ideas and topics for essays.

Assignment 3: Reflective essays, exercises, and homework analyzing a leadership situation from the student's own experiences, to apply course concepts, and assess leadership skills.

Objective 3: Compose and support thesis statements for analytical essays.

Assignment 4: Analysis and discussion of leadership scenarios and case studies to develop critical thinking skills, and to apply course concepts and theories.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

Assignment 3: Reflective essays, exercises, and homework analyzing a leadership situation from the student's own experiences, to apply course concepts, and assess leadership skills. Assignment 4: Analysis and discussion of leadership scenarios and case studies to develop critical thinking skills, and to apply course concepts and theories.

Objective 5: Identify and practice writing for different audiences and purposes.

Assignment 4: Analysis and discussion of leadership scenarios and case studies to develop critical thinking skills, and to apply course concepts and theories.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

Assignment 4: Analysis and discussion of leadership scenarios and case studies to develop critical thinking skills, and to apply course concepts and theories.

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

G-Matrix Form
If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.
No Value
If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and

paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/23/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to use welcoming, student-centered language and minimize the use of impersonal, course-centered language.	Y - added
03/23/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y - No OER version currently exists.
03/23/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.)? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y - An interactive ebook option exists that provides additional accessibility features. However it is currently cost-prohibitive.

03/23/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.		Y - Added
Stage 4: Articulation Officer						
No Value						
Stage 5: De Anza General Education						
No Value						
Stage 6: Content Review Matrix Liaison						
No Value						
Stage 7: Dean of Online Learning						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
04/16/2026	Basic Course Information	Proposed Details - Attachments	Required	Attach Online Course Delivery Request form to this section as a .pdf file.		
Stage 8: SLO Coordinator						
No Value						
Stage 10: Curriculum Committee						
No Value						

CO
Sort ID (00 < 10; 0 < 100)
BUS 065
Course Status
Non-substantial
Course Characteristics
• CTE
Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

03/19/2019

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

BUSD087. : Introduction to Selling

General Information	
Faculty Initiator:	Wenlei Shan
Attachments:	Online_BUS_87_2027F.pdf Hybrid_BUS_87_2027F.pdf
Course ID (CB01A and CB01B) :	BUSD087.
Short Course Title:	INTRO TO SELLING
Course Title (CB02) :	Introduction to Selling
Department:	BUS - Business
Effective Term:	Fall 2027
TOP Code (CB03) :	(0509.00) Marketing and Distribution
CIP Code:	(52.1801) Sales, Distribution, and Marketing Operations, General
SAM Priority Code (CB09) :	D - Possibly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000107343
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course introduces the principles and practices of inclusive selling, ethical decision-making, and cultural awareness as core competencies in modern sales. Students will develop a strong foundation in professional selling principles and develop skills of identifying and meeting customer needs, and ethical decision-making capability.
Course Type (CB27) :	Lower Division
Mode of Delivery:	Online Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements	

Discipline 1:

- Business

Discipline 2:

- Marketing

Discipline 3:

No value

FSA:

- FHDA FSA - GENERAL BUSINESS

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is transferable to CSU. This course is required to earn a Associate of Arts degree in Marketing Management. This course will teach students selling skills that are useful in a wide variety of occupations and situations.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This revision to the Introduction to Selling course embeds Diversity, Equity, and Inclusion (DEI) throughout the Course Outline of Record (COR). Key improvements include: - Removing Barriers: Adopting an affordable/OER textbook. - Inclusive Content: Updating course content and assignments to reflect diverse perspectives in the selling profession. - Equitable Assessment: Utilizing varied, inclusive, and authentic assessment methods (e.g., scenarios/role-play) that allow students to demonstrate knowledge through multiple pathways, accommodating different learners. - Inclusive Pedagogy: Explicitly stating in the Methods of Instruction that the instructor will use UDL principles to foster a sense of belonging and provide tailored support. These changes are designed to improve student engagement and equity-minded outcomes by fostering an inclusive classroom environment.

Course Development Options

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 - Pass/No Pass
Repeat Limit 0	Course Prior To College Level Not applicable.	Repeatability Statement No value
Course Support Status (CB26) Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Business Administration	Certificate of Achievement (COA)	Fall 2024 to Fall 2026
Business Administration	Certificate of Achievement (COA)	Fall 2026
Business Administration	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Administration	Associate in Arts (A.A.) Degree	Fall 2026
Global Studies	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Global Studies	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026

Management	Associate in Arts (A.A.) Degree	Fall 2026
Marketing Management	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Marketing Management	Certificate of Achievement (COA)	Fall 2026
Marketing Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Marketing Management	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to CSU only

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units4

Maximum Credit Units	4
Total Course In-Class (Contact) Hours	48
Total Course Out-of-Class Hours	96
Total Student Learning Hours	144

Credit / Non-Credit Options

Course Credit Status (CB04)	Course Non Credit Category (CB22)
Credit - Degree Applicable	Credit Course.

Course Classification Code (CB11)	Funding Agency Category (CB23)	Cooperative Work Experience Education Status (CB10)
Credit Course.	Not Applicable.	☐
☐ Variable Credit Course		

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	0
NA	0
Total	48
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP

Specifications

Methods of Instruction

Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids to help students understand how culture influences negotiation styles, trust-building, and decision-making. Faculty-led discussion of the assigned reading about unconscious bias in prospecting, qualification, and relationship management Faculty-led discussion of topics other than the assigned reading using diverse industry, markets, and customer profiles. Role-play and peer evaluation in structured sales scenarios where students take turns acting as the salesperson and the customers and providing constructive feedback on sales presentations.

Assignments

- A. Required reading from the low-cost textbook and other sources to foster a more equitable, inclusive learning environment.
- B. Written homework assignments are based on required readings, videos, and/or case studies and are designed to help students practice pitches for clients with different needs
- C. Role plays include diverse buyer personas.

Methods of Evaluation	Methods of Evaluation
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Methods of Evaluation	A. One or more quizzes and/or exams consisting of any combination of objective and/or essay questions to test students' understanding of key selling concepts such as the buying process and the participants in that process, the seven step selling model, the principles of effective sales communication, the role of relationship development in the selling process, the role of prospecting and qualifying in the sales process, the role of the preapproach in the sales process, the goals and methods of effective sales presentations, and the role of handling objections in the selling process of diverse target market. B. Directed written assignments evaluate the student's knowledge of key topics using inclusive messaging covered in class and the text, as well as to assess the effectiveness of their written communication and critical thinking skills C. Student participation in class discussions on selected topics to evaluate the student's level of mastery of those topics, and to evaluate their oral and/or written communication skills, which are needed for effective selling from diverse industry, markets, and customer profiles. D. A final exam consisting of a mix of objective and essay questions to test students' understanding of key selling concepts such as the buying process and the participants in that process, the seven step selling model, the principles of effective sales communication, the role of relationship development in the selling process, the role of respectfully prospecting and qualifying in the sales process, the role of the adaptive preapproach in the sales process, the goals and
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methods of effective sales presentations with culture awareness, and the role of handling objections professionally in the selling process.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Library, Bookstore

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Ingram	Sell	Cengage	2024/7th Edition	ISBN: 9780357901465 ISBN: 9780357901380

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Recognize and assess the ubiquity of selling and assess its role in the economy, everyday life, and business.

Assess the role of selling in a business from unconscious bias, inclusive language, and multicultural communication. Identify the characteristics of a successful salesperson, and examine what can be expected from a career in sales.

Examine why developing relationships with diverse clients is the key to successful selling, and examine one or more of these related concepts: adaptive selling, consultative selling, and win-win selling.

Examine the role and importance of ethics and ethical principles to ensure fair, respectful treatment of diverse customers and employees, which build: brand trust, drives innovation, and improves performance.

Identify the key elements of effective business communication by integrating inclusive language, authentic storytelling, and representative imagery to

resonate with diverse audiences.

Examine several simple and common models of buyer behavior and buyer psychology that sales professionals find useful by fostering cultural competence and, at times, neurodiversity awareness to ensure respectful interaction with all customer types.

Examine the Features, Advantages, and Benefits (FAB) concept and its role in sales communication.

Examine the first three steps in the seven-step selling process by training for unconscious bias, and culturally sensitive messaging in customer interactions

Identify the principal characteristics and components of an effective sales presentation by integrating inclusive language, showcasing diverse imagery and aligning product value with the customer's own DEI goals.

Describe what sales objections are and how to effectively handle the different types by tailoring responses to the audience's specific motivators.

Describe the three steps to obtaining a commitment from a customer, also known as closing the sale: 1) Check whether the customer's key concerns have been addressed, 2) Summarize the benefits already presented, and 3) Propose a commitment that will move the sale forward.

Recognize the roles of self-management and delegation in effective selling.

CSLOs

Identify and describe each of the steps in the seven step selling process model, explain the purpose of each step, and describe the essential elements of successful execution of each step. Expected SLO Performance: 0

Outline

Course Outline

Courses incorporate modules on understanding diverse buyer behaviors, acknowledging different cultural, ethnic, and social backgrounds, to avoid bias and stereotypes. The following outline emphasizes the win-win-win scenario for the buyer, the seller, and society.

- A. Recognize the ubiquity of selling and assess its role in the economy and business.
- B. Recognize the ubiquity of selling in everyday life.
- C. Assess the role of selling in the economy.
- D. Assess the role of selling in a business from unconscious bias, inclusive language, and multicultural communication. Identify the characteristics of a successful salesperson, and examine what can be expected from a career in sales.
 - 1. Identify the characteristics of a successful salesperson.
 - 2. Examine what can be expected from a career in sales, including a review of the different types of selling channels and selling environments in which today's sales professionals operate.
- E. Examine why developing relationships with diverse clients is the key to successful selling, and examine one or more of these related concepts: adaptive selling, consultative selling, and win-win selling.
 - 1. Examine why developing relationships with sales prospects is the key to successful selling.

2. Examine one or more of these concepts in the context of relationship selling: adaptive selling, consultative selling, and win-win selling.
 3. Examine the role of empathy in effective selling and sales communication.
 4. Examine how miscommunications occur and how they can be avoided.
 5. Examine why brevity is important in sales communication.
 6. Discover what active listening is and why it is so beneficial and useful in sales communication.
 7. Recognize the role of repetition in effective sales communication.
- F. Examine the role and importance of ethics and ethical principles to ensure fair, respectful treatment of diverse customers and employees, which builds brand trust, drives innovation, and improves performance.
1. Examine the role and importance of ethics and ethical principles in business.
 2. Examine the role and importance of ethics and ethical principles in selling.
- G. Identify the key elements of effective business communication by integrating inclusive language, authentic storytelling, and representative imagery to resonate with diverse audiences..
1. Evaluate the roles of both verbal and non-verbal communication in the sales process.
 2. Identify the important nonverbal messages, both positive and negative, that can be communicated by the manner of one's dress; and draw appropriate conclusions regarding how a sales person should dress and why.
 3. Examine how technology-based communication tools can help or hinder a salesperson's efforts to communicate and develop a relationship with a prospect.
- H. Examine several simple and common models of buyer behavior and buyer psychology that sales professionals find useful by fostering cultural competence and, at times, neurodiversity awareness to ensure respectful interaction with all customer types.
1. Examine a simple model of the consumer buying process.
 2. Examine how a salesperson might adapt their sales approach in a B2C sale based on which need in Maslow's Hierarchy of Needs the consumer is seeking to meet with a particular purchase.
 3. Examine a simple model of the business buying process for a new task buy and the roles of each of the different types of participants in that process: Initiators and influencers, decision makers, users, and technical advisors.
 4. Examine the differences in the locus of decision-making power in two other common types of B2B purchases, and how a salesperson might vary their sales approach to meet the needs of these two situations: Straight rebuys and modified rebuys.
- I. Examine the Features, Advantages, and Benefits (FAB) concept and its role in sales communication.
1. Examine the value of seeking first to understand and acknowledge a customer's motivation and pain before delivering any given FAB message.
 2. Identify the elements of effective FAB (Features, Advantages, and Benefits) messaging.
- J. Examine the first three steps in the seven-step selling process by training for unconscious bias, and culturally sensitive messaging in customer interactions
1. Examine the classic seven step selling process model and its applicability to today's selling environment.
 2. Identify the role of prospecting in the selling process, and what tools and resources are available to find prospects.
 3. Explore the elements of an effective preapproach, in which research is used to begin to identify a prospect's needs and the associated sales opportunities.
 4. Examine the elements of an effective sales approach, or how to make initial contact with a prospect in the most effective way in a variety of common circumstances.
 5. Examine how to overcome two common barriers to a successful approach: the salesperson's own reluctance and getting past the gatekeepers.
- K. Identify the principal characteristics and components of an effective sales presentation by integrating inclusive language, showcasing diverse imagery, and aligning product value with the customer's own DEI goals.
1. Identify the four phases of an effective sales presentation, and the purpose of each phase: Opening, Investigating, Demonstrating Capability, and Obtaining Commitment.
 2. Examine the four useful types of questions in a sales presentation according to the SPIN selling model: Situation, Problem, Implication, and Need-Payoff questions.
 3. Recognize how a fifth type of question can be usefully employed in a sales presentation: permission to proceed to the next step.
 4. Examine how to respond to a Request for Proposal (RFP) with an effective written sales presentation, where applicable.
- L. Describe what sales objections are and how to effectively handle the different types by tailoring responses to the audience's specific motivators.
1. Describe what sales objections are and what distinguishes them from other statements made or questions asked by the sales prospect.
 2. Describe the various types of sales objections, and how to effectively handle each type.
- M. Describe the three steps to obtaining a commitment from a customer, also known as closing the sale: 1) Check whether the customer's key concerns have been addressed, 2) Summarize the benefits already presented, and 3) Propose a commitment that will move the sale forward.
1. Describe the first step to obtaining a commitment from a customer: check whether the customer's key concerns have been addressed.
 2. Describe the second step to obtaining a commitment from a customer: summarize the benefits already presented.
 3. Describe the third step to obtaining a commitment from a customer: propose a commitment that will move the sales forward.
- N. Recognize the roles of self-management and delegation in effective selling.
1. Recognize the role of self-management in effective selling.

2. Recognize the role of delegation in effective selling.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing. Require writing skills for written homework assignments that are based on required readings, videos, and/or case studies, and are designed to help students practice pitches for clients with different needs

Objective 2: Develop analytical ideas and topics for essays.

Objective 2: Develop analytical ideas and topics for essays. Require analytical ideas and topics skills for written homework assignments that are based on required readings, videos, and/or case studies, and are designed to help students practice pitches for clients with different needs

Objective 3: Compose and support thesis statements for analytical essays.

Objective 3: Compose and support thesis statements for analytical essays. Require writing thesis statement for written homework assignments that are based on required readings, videos, and/or case studies, and are designed to help students practice pitches for clients with different needs

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

Objective 4: Identify and practice writing for different audiences and purposes. Require writing skills for written homework assignments that are based on required readings, videos, and/or case studies, and are designed to help students practice pitches for different clients

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

Objective 5: Demonstrate writing as a multi-step process including attention to planning and revision. Require revision skills for written homework assignments that are based on required readings, videos, and/or case studies, and are designed to help students practice

pitches for clients with different needs

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Objective 6: Demonstrate appropriate grammar usage and mechanics. Require basic writing skills, specifically in grammar usage and mechanics for written homework assignments that are based on required readings, videos, and/or case studies, and are designed to help students practice pitches for clients with different needs

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.
No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.) No Value
Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.) No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.) No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.) No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.) No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using th Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.) No Value

Comments						
Stage 2: Department Chair						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
2/12/26	Specifications	Required Text	Textbook not most recent edition	Required change	Y	
Stage 3: DEI						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
02/17/2026	Basic Course Information	Course Description	Suggested	Consider small revisions to bring in student-centered language ("Students will..."), and to briefly mention the knowledge, skills, and abilities students will gain upon the completion of the course.	Y	

02/17/2026 Specification	Examples of Primary Texts and References	Required	The DEI statement notes the inclusion of an OER/affordable textbook, but the textbook listed is not an OER and not under \$50.00 (De Anza's low textbook cost threshold). Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	We updated the textbook and the price is \$51 from Amazon which is considered low-cost textbook.
02/17/2026 Specification	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	All the authors of this textbook are experienced academics and professionals in sales and marketing drawn from U.S. universities and business education backgrounds. Their perspectives are grounded in academic research and real-world selling experience, which helps connect theory with practice. The concept and content engage with topics such as ethical challenges and the use of modern technology, which engage broader debates, including equity in sales, cultural competence, and how selling practices vary across different global markets.
02/17/2026 Specification	Methods of Instruction	Suggested	Thanks for this list of instruction methods. Are there also student-driven or small-group peer discussions? If so, consider adding as an instruction method, as peer work provides another way of increasing student representation and engagement.	Y
02/17/2026 Specification	Assignments	Suggested	Do one or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If so, consider noting for the relevant assignments. If not appropriate, please disregard.	We leave this decision to each instructor to decide.
02/17/2026 Specification	Methods of Evaluation	Suggested	For any of these evaluation methods, can/does the instructor provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If so, consider adding to the relevant methods of evaluation. If not appropriate, please disregard.	We leave this decision to each instructor to decide.

Stage 4: Articulation Officer

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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03/05/26	Specifications	Suggested Reading	Required	This section is only supposed to be for literature classes. You are welcome to either delete it entirely, or if you want to keep the books you can move them to primary texts. Thank you!		
03/05/26	Learning Objectives and Outline	Course Objectives and Course Outline	Required	It looks like something happened during the DEI review that made it so that now the outline does not match the course objectives. The main points (subtopics/upper Alpha (A)) of the Course Outline should be taken directly from the Course Objectives section. In the outline, the some of the subsections became main points,and some of the previous objectives became subsections. Could you please take a look and make sure that the main topics of the course outline match the course objectives, however you would like to format it? Thank you!		
Stage 5: De Anza General Education						
No Value						
Stage 6: Content Review Matrix Liaison						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
3/19/26	Matrix B	all objectives that apply	Required	Fill out Matrix B for your English advisory	Y	
3/24/26	Matrix B		Required	Beneath the objectives which apply to your course you need to "List the skills/activities/assignments that are covered in this target course that require the knowledge/ skills taught in the requisite course. ONLY use the Outline, Assignments or Methods of Evaluation areas. Site the area and briefly summarize the area referenced."	Y	
4/7/26	Matrix B		Required	Please Clarify. You listed "ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005" as your advisory which is consistent with filling out Matrix B. However, in filling out Matrix B you consistently stated students need skills from EWRT 1A (now ENGL C1000 due to common course numbering (CCN)) which would be a different advisory.	Y	your advisory still states • ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005. but your entries in matrix B say ENGL 1000C. (Note: an ENGL 1000C advisory is different than eligibility for ENGL 1000C). If your advisory is for ENGL 1000C you need to change the advisory in the Req/Adv tab and you need to fill out Matrix A instead of Matrix B. Otherwise you need to remove reference to ENGL 1000C in Matrix B
Stage 7: Dean of Online Learning						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
4/27/26	Basic Course Information	Proposed Details - Attachments		Please attach the Online Course Delivery Request Form as a .pdf file.	Required change	Y
5/5/26	Basic Course Information	Mode of Delivery		Please update mode of delivery to include Hybrid as well since a Hybrid Course form is attached.	Required	Y

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO**Sort ID (00 < 10; 0 < 100)**

BUS 087

Course Status

Non-substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

02/11/2020

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

BUSD094. : Social Media Marketing Strategies**General Information**

Faculty Initiator:	• John Francis
Attachments:	ReqAdv_G_BUS_94_2027F_1.pdf Hybrid_BUS_94_2027F.pdf Online_BUS_94_2027F.pdf
Course ID (CB01A and CB01B) :	BUSD094.
Short Course Title:	SOCIAL MEDIA MARKETING STRATEG
Course Title (CB02) :	Social Media Marketing Strategies
Department:	BUS - Business
Effective Term:	Fall 2027
TOP Code (CB03) :	(0506.40) Small Business and Entrepreneurship
CIP Code:	(52.0703) Small Business Administration/Management
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000525499
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course will explore social media as an effective delivery platform in marketing, specifically in promotion programs and product/service delivery. It will also analyze the strengths and weaknesses of major platforms and analytical tools and evaluate the cost-effectiveness and impacts on the overall marketing objectives of a business. There will be an emphasis on customer relationship-building, public relations, event marketing, and sales promotions using social media tactics in developing effective, ethical social media marketing strategies. Students will also evaluate strategies for inclusive representation and cultural competency to ensure marketing efforts resonate with a broad, diverse audience.
Course Type (CB27) :	• Lower Division
Mode of Delivery:	• Online • Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	• Business
Discipline 2:	• Marketing

Discipline 3:

No value

FSA:

- FHDA FSA - GENERAL BUSINESS

Formerly Statement

Formerly Statement

(Formerly BUS D059.)

Course Justification

Course Justification

This course examines social media marketing, a key component of online marketing. It is an elective for the A.A. degree in Marketing Management and is CSU transferable. Students learn to define strategies and leverage technologies in implementing effective social media marketing programs.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|--|
| ☒ Basic Course Information - Course Description | ☐ Specifications - Methods of Instruction |
| ☐ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course incorporates DEI principles by requiring students to understand and design social media plans for relationship-building with diverse partners and networking with a wide variety of potential clients. Additionally, the curriculum emphasizes ethical social media strategies and the tailoring of marketing mixes to meet the specific preferences and needs of diverse target market segments. This course also presents an OER (zero cost) textbook option which is downloadable as a PDF to maximize access to resources. Texts and required reading materials represent various viewpoints and perspectives and include standards for accessibility.

Course Development Options

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
- Pass/No Pass

Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Business Administration	Certificate of Achievement (COA)	Fall 2024 to Fall 2026
Business Administration	Certificate of Achievement (COA)	Fall 2026
Business Administration	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Administration	Associate in Arts (A.A.) Degree	Fall 2026
Entrepreneurship	Certificate of Achievement (COA)	Fall 2022
Entrepreneurship (In Development)	Certificate of Achievement (COA)	Fall 2027
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Management Information Systems Support	Certificate of Achievement (COA)	Fall 2025
Marketing Management	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Marketing Management	Certificate of Achievement (COA)	Fall 2026

Marketing Management	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Marketing Management	Associate in Arts (A.A.) Degree	Fall 2026
Public Relations	Certificate of Achievement (COA)	Fall 2022
Public Relations	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Public Relations	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Real Estate	Certificate of Achievement (COA)	Fall 2022 to Fall 2026
Real Estate	Certificate of Achievement (COA)	Fall 2026
Real Estate	Associate in Arts (A.A.) Degree	Fall 2025
UI/UX: User Interface/User Experience Design	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
UI/UX: User Interface/User Experience Design	Associate in Arts (A.A.) Degree	Fall 2026
UI/UX: User Interface/User Experience Design	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
UI/UX: User Interface/User Experience Design	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options	
Course General Education Status (CB25)	
Y	
Transferability (CB05)	Transferability Status

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	5
Maximum Credit Units	5
Total Course In-Class (Contact) Hours	60
Total Course Out-of-Class Hours	120
Total Student Learning Hours	180

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	5	10
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	60

Laboratory	0
NA	0
Total	60
Course Out-of-Class Hours	
Lecture	120
Laboratory	0
NA	0
Total	120

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Discussion of assigned reading Online exploration of social media platforms, analytical tools, and pages. Collaborative learning and small group exercises Homework and extended projects
Assignments	
A. Required reading from the textbook and supplemental business sources (links). B. Analysis and discussion of business case studies to develop Marketing judgment and critical thinking skills to apply course concepts. C. Substantial written projects (3-5 pages) that requires comprehension and application of marketing concepts to business situations. Example: Preparation of a comprehensive promotion plan incorporating technology strategies acquired from textbook pertaining to use of social media. This assignment is scaffolded and students receive instructor feedback that is incorporated into their final submission.	
Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Chapter tests that appraise comprehension and application of course material. B. Written submission of case studies and social media content that apply social media marketing concepts to reach and

engage varied, multicultural audiences.

- C. Forum discussions to assess the influencers and sample business posts on different social media platforms to evaluate their cost effectiveness in meeting business objectives.
- D. Final exam, final term paper, or final term project demonstrating critical thinking regarding the marketing situation, ethical issues, impact on customers and the business, return on investments, as well as application of newly acquired social media marketing concepts.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Wendy B Grateaux	Social Media Marketing	Kendall Hunt Publishing Company	2020 / Edition: 1	9781792429521
Debra Zahay; Mary Lou Roberts; Janna Parker; Donald I. Barker; Melissa S. Barker	Social Media Marketing: A Strategic Approach	Cengage Publishing	2023 / 3rd Edition	9798214352879
Dave Chaffey; Fiona Ellis-Chadwick; Majd Abed-Rabbo	Digital Marketing	Pearson Publishing	2025 / 9th Edition	9781292479637
Cheryl Lawson	Introduction to Social Media (OER)	Oklahoma State University Libraries (OPEN OKSTATE)	2022 / 1st Edition	N/A

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Examine the ways businesses deliver value to consumers.

Examine the ways to leverage social media in marketing.

Design a plan for relationship-building with target customers and diverse partners.

Illustrate the benefits of event marketing and sales promotions for a business.

Demonstrate how companies can use social media for public relations.

Apply social media marketing tools to improve the customer's experience and the firm's presence.

Evaluate, select, and assess the cost effectiveness of social media platforms and define the metrics best suited to a business (real or planned).

Explore the ethical issues in social media marketing.

Incorporate Diversity, Equity, and Inclusion in Social Media Marketing

CSLOs

Analyze relationship building with target customers and diverse partners and design a social media plan likely to produce favorable outcomes.

Expected SLO Performance: 0.0

Examine a wide variety of cost-effective promotion tools.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Examine the ways businesses deliver value to consumers.
 - 1. Summarize the marketing concept.
 - 2. Describe various methods for market segmentation for the business.
 - 3. Examine factors that influence consumers' buying behavior.
 - 4. Describe the benefits of a value proposition.
 - 5. Demonstrate how the marketing mix can be tailored to the needs and preferences of the target market.
- B. Examine the ways to leverage social media in marketing.
 - 1. Understand the concept of social media.
 - 2. Learn to identify effective social influencers.
 - 3. Examine how to develop a sense of community.
 - 4. Learn the basic steps in building an online presence with key social media platforms.
 - 5. Leverage cross-platform promotion methods to enhance your presence.
 - 6. Illustrate how firms use viral marketing.
- C. Design a plan for relationship-building with target customers and diverse partners.
 - 1. Identify methods to overcome the risk of engaging on social media for customers.
 - 2. Compare the various types of relationship building.

3. Discuss the potential mutual benefits of diverse partnership programs for guest posts and influencers.
4. Compare the various forms of engagements and triggers for Call-To-Actions.
- D. Illustrate the benefits of event marketing and sales promotions for a business.
 1. Identify the benefits of events and sales promotions for a firm by examining diverse examples.
 2. Describe how to network with diverse potential clients and partners.
 3. Discover the various forms that events can take, including virtual events.
- E. Demonstrate how companies can use social media for public relations.
 1. Discuss the importance of social media (blogs, social networking sites, video sites) to public relations management.
 2. Discuss the tactics for handling negative reviews and publicity on social media.
- F. Apply social media marketing tools to improve the customer's experience and the firm's presence.
 1. Examine the relevant metrics and key performance indicators for a successful social media program.
 2. Illustrate various approaches to building traffic online.
 3. Assess optimal contents, media types, and schedule for social media posts.
 4. Measure and analyze engagements and followers using analytic software tools.
- G. Evaluate, select, and assess the cost effectiveness of social media platforms and define the metrics best suited to a business (real or planned).
 1. Based on an understanding of the industry and environment in which a business will operate, fully analyze the target customer segments to pursue.
 2. Select promotion tactics that are most likely to appeal to and attract the target customer segments.
 3. Prepare or assess samples of social media posts by applying course concepts.
- H. Explore the ethical issues in social media marketing.
 1. Understand the privacy issues regarding social media users.
 2. Assess the perils of purchasing fake followers.
- I. Incorporate Diversity, Equity, and Inclusion in Social Media Marketing
 1. Analyze the importance of authentic representation of diverse identities (race, gender, ability, age, etc.) in social media content and influencer partnerships.
 2. Examine how social media algorithms can perpetuate bias and the ethical responsibility of marketers to mitigate these effects.
 3. Learn best practices for creating accessible social media assets, including alt-text, captions, and high-contrast design to ensure equitable access for users with disabilities.
 4. Discuss the role of cultural competency in global social media campaigns to avoid appropriation and ensure respectful community engagement.
 5. Explore how socio-economic factors influence platform access and how businesses can design strategies that reach underserved populations.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.
- Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra

Advisory(ies) - Other:

BUS D090.

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Course Objective A: Examine the ways businesses deliver value to consumers. Course Objective B: Examine the ways to leverage social media in marketing. Course Objective C: Design a plan for relationship-building with target customers and diverse partners. Course Objective H: Explore the ethical issues in social media marketing. Course Objective I: Incorporate Diversity, Equity, and Inclusion in Social Media Marketing. Each of these topics will be evaluated from a variety of cultural and rhetorical perspectives.

Objective 2: Compose essays drawn from personal experience and assigned texts.

Assignment C: Substantial written projects (3-5 pages) that requires comprehension and application of marketing concepts to business situations. Example: Preparation of a comprehensive promotion plan incorporating technology strategies acquired from textbook pertaining to use of social media. This assignment is scaffolded and students receive instructor feedback that is incorporated into their final submission. Methods of evaluation: B. Written submission of case studies and social media content that apply social media marketing concepts to reach and engage varied, multicultural audiences. C. Forum discussions to assess the influencers and sample business posts on different social media platforms to evaluate their cost effectiveness in meeting business objectives. D. Final exam, final term paper, or final term project demonstrating critical thinking regarding the marketing situation, ethical issues, impact on customers and the business, return on investments, as well as application of newly acquired social media marketing concepts. This requires the ability to compose essays based on personal experience, research, and assigned texts.

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

Assignment C: Substantial written projects (3-5 pages) that requires comprehension and application of marketing concepts to business situations. Example: Preparation of a comprehensive promotion plan incorporating technology strategies acquired from textbook pertaining to use of social media. This assignment is scaffolded and students receive instructor feedback that is incorporated into their final submission. This will require the ability to properly cite sources based on research required.

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignment C: Substantial written projects (3-5 pages) that requires comprehension and application of marketing concepts to business situations. Example: Preparation of a comprehensive promotion plan incorporating technology strategies acquired from textbook pertaining to use of social media. This assignment is scaffolded and students receive instructor feedback that is incorporated into their final submission. This will require writing and analytical ability.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Assignment B: Analysis and discussion of business case studies to develop Marketing judgment and critical thinking skills to apply course concepts. Students must be able to compare and discuss business strategies with others during the class. This includes understanding different strategies and perspectives of others.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value
Objective 8: Examine logarithmic expressions and develop logarithmic function models.
No Value
Objective 9: Develop quadratic function models to solve problems.
No Value
Objective 10: Investigate the characteristics of rational expressions.
No Value
Objective 11: Develop skills to work with radical expressions.
No Value

E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

Course Objective F: Apply social media marketing tools to improve the customer's experience and the firm's presence. Examine the relevant metrics and key performance indicators for a successful social media program. Illustrate various approaches to building traffic online. Assess optimal contents, media types, and schedule for social media posts. Measure and analyze engagements and followers using analytic software tools. Students must be able to analyze key metrics required when assessing the effectiveness of social media campaigns.

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

Course Objective F: Apply social media marketing tools to improve the customer's experience and the firm's presence. Examine the relevant metrics and key performance indicators for a successful social media program. Illustrate various approaches to building traffic online. Assess optimal contents, media types, and schedule for social media posts. Measure and analyze engagements and followers using analytic software tools. Students must be able to analyze key metrics, including ratios, required when assessing the effectiveness of social media campaigns.

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

Course Objective F: Apply social media marketing tools to improve the customer's experience and the firm's presence. Examine the relevant metrics and key performance indicators for a successful social media program. Illustrate various approaches to building traffic online. Assess optimal contents, media types, and schedule for social media posts. Measure and analyze engagements and followers using analytic software tools. Method of Evaluation C: Forum discussions to assess the influencers and sample business posts on different social media platforms to evaluate their cost effectiveness in meeting business objectives. Students must be able to analyze key metrics, including ratios, required when assessing the effectiveness of social media campaigns.

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/03/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there is no representative OER textbook, please let me know in the instructor response box. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. Please let me know if your textbook is low cost in the initiator response box, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y - Added an OER textbook and updated the DEI Box.
03/03/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y - Primary texts and references include standards for accessibility and represent diverse author voices. Updated in DEI statement.
03/03/2026	Specifications	Assignments	Suggested	Do one or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If yes, consider noting that for the relevant assignment. If not appropriate, please let me know in the initiator response box.	Y - The main project is scaffolded and students can incorporate instructor feedback into the final submission. Updated in assignments.

Stage 4: Articulation Officer

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/16/26	Specifications	Suggested Reading	Required	Please remove this section- the suggested reading list was only ever intended for literature courses, and the Curriculum Committee voted to remove this section for other course types. Thank you!	Y

Stage 5: De Anza General Education						
No Value						
Stage 6: Content Review Matrix Liaison						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
3/18/26	Matrix A		Required	Complete Matrix A for your English advisory	Y	
3/18/26	Matrix F		Required	Complete Matrix F for your Math advisory	Y	
Stage 7: Dean of Online Learning						
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response	
03/25/26	Basic Course Information	Proposed Details - Attachments	Required	Please attach a .pdf file of your online course delivery request form to this section.	Y	
Stage 8: SLO Coordinator						
No Value						
Stage 10: Curriculum Committee						
No Value						

CO
Sort ID (00 < 10; 0 < 100)
BUS 094
Course Status
Non-substantial
Course Characteristics
CTE
Cross-Listed/Related Course Information
NA
Cross-Listed/Related Course ID's
No Value
DL Approval Date (MM/DD/YYYY)

03/19/2019

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Course number change appr. 6/19/18 (effect. F19).-mkct
- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

C DD067. : Supervision and Administration of Child Development Programs (Adult Supervision)

General Information	
Faculty Initiator:	• Li Sun • Vargas, Nellie
Attachments:	ReqAdv_G_CD_67_2027F_1.pdf ReqAdv_G_CD_67_2027F_2.pdf Hybrid_CD_67_2027F.pdf Online_CD 67_2027F.pdf
Course ID (CB01A and CB01B) :	C DD067.
Short Course Title:	ADULT SUPRVSN/ADMIN C D PROGR
Course Title (CB02) :	Supervision and Administration of Child Development Programs (Adult Supervision)
Department:	C D - Child Development
Effective Term:	Fall 2027
TOP Code (CB03) :	(1305.80) Child Development Administration and Management
CIP Code:	(19.0708) Child Care and Support Services Management
SAM Priority Code (CB09) :	B - Advanced Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000079374
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	Students from all backgrounds will explore the methods and principles of supervising student teachers, assistant teachers, teachers, parents, and volunteers in early childhood classrooms. Ar emphasis is placed on the role of teachers supervising other adults while simultaneously addressing the classroom needs of children, parents, and the program.
Course Type (CB27) :	• Lower Division
Mode of Delivery:	• Online • Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements	
Discipline 1:	• Child Development/Early Childhood Education

Discipline 2:

No value

Discipline 3:

No value

FSA:

- FHDA FSA - CHILD DEVELOPMENT

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is required for the Child Development A.A. Degree. This course is required to obtain a California Child Development Supervisory Permit. It meets the needs of classroom teachers working with young children who have supervisory responsibilities for other adults. This course is CSU transferable.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

CHLD F091.

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course includes a course description, course outline, text materials accessible and cost conscious, methods of instruction, assignments and evaluation practices that document student-instructor interactions that are student centered and create an accessible learning environment for all students.

Course Development Options

Basic Skill Status (CB08)

Course Special Class Status (CB13)

Grade Options

Course is not a basic skills course.	Course is not a special class.	• Letter Grade • Pass/No Pass
Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Child Development	Certificate of Achievement-Advanced (COA-A)	Fall 2022
Child Development	Associate in Arts (A.A.) Degree	Fall 2025
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options	
Course General Education Status (CB25)	
Y	
Transferability (CB05)	Transferability Status
Transferable to CSU only	Approved

UC Transferable and/or Lower-Division Major Requirement
Will the course be UC transferable?
No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	3
Maximum Credit Units	3
Total Course In-Class (Contact) Hours	36
Total Course Out-of-Class Hours	72
Total Student Learning Hours	108

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education

☐ Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	36
Laboratory	0
NA	0
Total	36
Course Out-of-Class Hours	
Lecture	72

Laboratory	0
NA	0
Total	72

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and power points Small group activities In class self-assessments using a variety of instruments Role play with different scenarios Discussion of readings and experiences

Assignments
A. Ongoing interaction and participation in small group discussion and presentations. Includes role plays; small group discussion with presentation of results; partner worksheets on ethics, working with parents, communication and conflict resolution. Use of three in-class self-assessment inventories - Teacher Evaluation of Professional Skills; and Communication Inventory. B. Three assignments including written professional goals related to working with adults; Using textbook to look at adult development and life transitions and relate this construct to their own personal and professional development; Analysis of stage of a development of a person they are currently supervising using the theoretical constructs discussed in text and class. C. Completion of the Early Childhood Environmental Rating Scale (ECERS)Assessment through observations of programs. D. Complete of the PAS (Program Administration Scale) through personal reflection.

Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Reflections will be assessed for critical thinking and self analysis; in class writing assignments will be graded on students ability to provide relevant examples that apply personal experiences to course material, and theoretical constructs from textbook. Students will be evaluated on their analysis of how Conflict Inventories to reflect their skills; Use the Self Evaluation of Professional Skills to determine their strengths and areas for growth as a teacher; Analyze the results of their communication skills inventory and develop a plan for improving at least two skills. B. Assignments will be assessed based on students ability to use material from textbook and apply it accurately to their own life stages of adult development. Effectively appraise the stage of

professional development of someone that they supervise using the constructs from the textbook. In all assignments students will be assessed on their depth of thinking, self understanding and ability to personalize theoretical constructs.

- C. Accurate and thorough completion of the Environmental Rating Scale Assessment including observing an early childhood classroom, an analysis of scores and detailed plan for program improvement. Requires a minimum of at least eight hours of observation in a classroom; completion of the entire assessment tool and a comprehensive analysis of scores, and results and recommended changes for improvement.
- D. Final Project: Completion of PAS (Program Administration Scale) to reflectively assess leadership and management skills.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Adams, Shauna M;Kronberg, Amy S; Donley, Michelle L; Lynch, Ellen M.	Developing and Administering an Early Childhood Education Program	Cengage Learning	2021 1st edition	100357513207
Harms, Thelma and Clifford, R.	" Family Child Care Enviromental Rating Scale"	Teacher's College Press	2019 3rd edition	100807763012
Harms, Thelma and Clifford, R.	"Early Childhood Environmental Rating Scale"	Teachers College Press	2017 3rd edition	100807755702

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Develop strategies for building relationships with adult learners as the basis of supervisory and mentoring practices.

Employ a variety of strategies for modeling behavior, providing guidance and giving evaluative feedback to adults working in the classroom.

Use an understanding of the developmental stages of teachers and student teachers to assess individual development related to professional performance.

Demonstrate sensitivity and awareness of cultural diversity in working with teachers, student teachers, and other adults.

Apply effective communication and conflict resolution techniques to facilitate positive interactions when working with adults.

Support growth and change in adult learners through observational evaluation strategies.

Analyze a classroom environment through observation and assessment to determine program quality.

Demonstrate an understanding of professional and ethical behavior as an early childhood professional.

CSLOs

Develop strategies for working with adults using relationship based supervisory practices that emphasize developmental stages, respect for differences, communication and conflict resolution techniques and providing effective feedback through observation.

Expected SLO Performance: 0

Analyze an early childhood classroom environment using the Environmental Rating Scale by observing and applying NAEYC standards. (including health/safety, physical environment, curriculum, interactions, working with staff and parents)

Expected SLO Performance: 0

Analyze leadership and management practices of center based programs.

Expected SLO Performance: 0

Outline

Course Outline

- A. Develop strategies for building relationships with adult learners as the basis of supervisory and mentoring practices.
 1. Examine the dynamics of power, trust, hope and communication in building relationships.
 2. Describe the roles and responsibilities of the supervisor and the supervisee.
 3. Practice articulating standards and expectations of performance for adults learners.
- B. Employ a variety of strategies for modeling behavior, providing guidance and giving evaluative feedback to adults working in the classroom.
 1. Describe strategies for initiating and integrating new adults into the classroom.(Teachers, student teachers, volunteers, parents, aides)
 2. Apply developmentally appropriate practices in modeling interactions, providing curriculum activities and using positive guidance with children.
 3. Identify appropriate tools for setting clear expectations and standards for adult behavior in the classroom.(orientation, job descriptions, daily feedback, regular evaluations)
- C. Use an understanding of the developmental stages of teachers and student teachers to assess individual development related to professional performance.

1. Differentiate the stages of professional development using Katz, Fuller and Bown and Van Vender's constructs.
 2. Review Erikson's adult life stages as they apply to personal and professional development.
 3. Reflect on the impact of cultural beliefs and practices in understanding ourselves and in relating to other adults.
 4. Use reflective practice as a tool for change in both the supervisor and the supervisee.
- D. Demonstrate sensitivity and awareness of cultural diversity in working with teachers, student teachers, and other adults.
1. Identify how cultural values and beliefs frame and contextualize experiences, interactions and communication.
 2. Cultivate self-awareness and self-reflection as the foundation for cultural sensitivity and responsiveness.
- E. Apply effective communication and conflict resolution techniques to facilitate positive interactions when working with adults.
1. Practice basic communication skills - I messages, active listening, clarification, reframing, nonverbal messages.
 2. Examine conflict as a more complex form of communication requiring specific understanding and strategies to be effective.
 - a. Analyze conflict modes using a variety of instrument.
 - b. Use conflict resolution process to practice problem solving with parents.
- F. Support growth and change in adult learners through observational evaluation strategies.
1. Assess performance using summative and formative evaluation tools.
 2. Use ongoing objective observation as a tool for providing consistent feedback through using the clinical supervision approach.
 3. Recognize the uses of video taping in providing objective feedback on performance.
 4. Use ongoing objective observation as a tool for reflective supervision.
- G. Analyze a classroom environment through observation and assessment to determine program quality.
1. Use the Environmental Rating Scale to do extensive observation and assessment of the classroom environment.
 2. Evaluate the results of the ERS assessment using the National Association for the Education of Young Children standards for program quality.
 3. Construct a plan of action recommending changes for improving the quality of the classroom based on the ERS assessment.
- H. Demonstrate an understanding of professional and ethical behavior as an early childhood professional.
1. Analyze the NAEYC ethical code of conduct for early childhood practitioners.
 2. Use the PAS (Program Administration Scale) to measure leadership and management practices.
 3. Examine the importance of involvement in professional organizations.
 4. Value advocacy as a critical part of professional awareness, behavior and action.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

(C D D010G or PSYC D010G) and C D D050.

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value
Objective 2: Compose essays drawn from personal experience and assigned texts.
No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.
No Value
Objective 4: Create syntactically varied sentences that are free of mechanical errors.
No Value
Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.
No Value

B-Matrix Form
ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.
Methods of Evaluation A: Reflections will be assessed for critical thinking and self analysis ; in class writing assignments will be graded on students ability to provide relevant examples that apply personal experiences to course material, and theoretical constructs from textbook .
Objective 2: Develop analytical ideas and topics for essays.
Methods of Evaluation D: Final Project: Completion of PAS (Program Administration Scale) to reflectively assess leadership and management skills.
Objective 3: Compose and support thesis statements for analytical essays.
Assignments B: Three assignments including written professional goals related to working with adults.
Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.
No Value
Objective 5: Identify and practice writing for different audiences and purposes.
Assignments B: Three assignments including written professional goals related to working with adults.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

Methods of Evaluation A: Reflections will be assessed for critical thinking and self analysis ; in class writing assignments will be graded on students ability to provide relevant examples that apply personal experiences to course material, and theoretical constructs from textbook

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Methods of Evaluation A: Reflections will be assessed for critical thinking and self analysis ; in class writing assignments will be graded on students ability to provide relevant examples that apply personal experiences to course material, and theoretical constructs from textbook

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Assignments B: Three assignments including written professional goals related to working with adults.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value
E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using th Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response

02/07/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to the course description that emphasize welcoming, student-centered language, as well as a small addition to the description in order to describe the knowledge, skills, and abilities students will gain upon the completion of the course.	"Y"
02/07/2026	Basic Course Information	DEI Review	Suggested	Consider adding additional details to this statement to outline additional great work this course is already doing with respect to equity. For example/such as, more information regarding the DEI/equity content in the course outline, or the multiple means of engagement, action, and expression (in keeping with Universal Design for Learning) shown in the methods of instruction, assignments, and methods of evaluation	"Y"
02/07/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Students are allow to use older editions. As long it's the same author and title to give the students the opportunity to rent, borrow or buy these books at low cost. In addition, it's extra copies of the book available for those students that can afford to rent or buty the book kind of a lending library.
02/07/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	The textbooks for this course reflects diverse authors, voices and perspectives related to the field.
02/07/2026	Specifications	Assignments	Suggested	Thanks for providing this list of assignments. For any of the assignments listed, are they designed to provide students with choices in how they demonstrate proficiency, encourage students to connect course content to their own life, background, and experiences, and/or provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment -- I believe self reflection was noted in the methods of evaluation ("Reflections will be assessed for critical thinking and self analysis; in class writing assignments will be graded on students ability to provide relevant examples that apply personal experiences to course material"). If not appropriate, please disregard.	Not appropriate
02/07/2026	Specifications	Methods of Evaluation	Suggested	Thanks for this clear list of evaluation methods. For any of these evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations? If yes, consider adding this to the relevant evaluation method. If not appropriate, please disregard.	Not appropriate

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
10/16/26	Req/ Adv	Prerequisite(s)	Required	On this tab you have indicated that the prerequisites can be taken concurrently but on your Matrix G's you state that they must be taken prior to the course. Please clarify so that they match.	"Y"
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO
Sort ID (00 < 10; 0 < 100)
C D 067
Course Status
Non-substantial
Course Characteristics
CTE
Cross-Listed/Related Course Information
NA
Cross-Listed/Related Course ID's
No Value
DL Approval Date (MM/DD/YYYY)
No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

Course Outline of Record Report

06/02/2026

C DD072. : Partnerships with Families in Early Childhood Education

General Information

Faculty Initiator:	Nellie Vargas
Attachments:	ReqAdv_G_CD_72_2027_1.pdf ReqAdv_G_CD_72_2027_2.pdf Hybrid_CD_72_2027F.pdf Online_CD 72_2027F.pdf
Course ID (CB01A and CB01B) :	C DD072.
Short Course Title:	PRTNRSHPS W/FAMILIES IN ECE
Course Title (CB02) :	Partnerships with Families in Early Childhood Education
Department:	C D - Child Development
Effective Term:	Fall 2027
TOP Code (CB03) :	(1305.60) Parenting and Family Education
CIP Code:	(19.0707) Family and Community Services
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000260698
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	Students from all backgrounds will explore key principles and effective approaches to involve families to promote children's learning, development, and success in early childhood education settings. (This course meets NAEYC Standard 2; NBPTS Generalist Standard VII; CEC/DEC Standard 10; and CA Early Childhood Competencies: Family and Community Engagement, and Relationships, Interaction and Guidance.)
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Child Development/Early Childhood Education
Discipline 2:	No value

Discipline 3:

No value

FSA:

- FHDA FSA - CHILD DEVELOPMENT

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course prepares students to work with diverse families and their children. The course is designed to meet the requirements of the Child Development - Early Childhood Mental Health Certificate program. It also meets areas of competency under the Infant Family Early Childhood Mental Health competencies statewide endorsement process. This course meets the State of California requirements under the Child Development Permit. It is also CSU transferable.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- ☒ Basic Course Information - Course Description
- ☒ Specifications - Methods of Instruction
- ☒ Specifications - Assignments
- ☒ Specifications - Methods of Evaluation
- ☒ Specifications - Examples of Primary Texts and References
- ☒ Outline - Course Outline

Please summarize the ways in which your course includes DEI.

This course includes a course description, course outline, text materials accessible and cost conscious methods of instruction, assignments and evaluation practices that document student-instructor interactions that are student centered and create an accessible learning environment for all the students.

Course Development Options

Basic Skill Status (CB08)

Course Special Class Status (CB13)

Grade Options

Course is not a basic skills course.	Course is not a special class.	• Letter Grade • Pass/No Pass
Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Child Development	Associate in Arts (A.A.) Degree	Fall 2025
Child Development	Certificate of Achievement (COA)	Fall 2022
Early Childhood Mental Health	Certificate of Achievement (COA)	Fall 2022 to Fall 2026
Early Childhood Mental Health	Certificate of Achievement (COA)	Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options	
Course General Education Status (CB25)	
Y	
Transferability (CB05)	Transferability Status
Transferable to CSU only	Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	3
Maximum Credit Units	3
Total Course In-Class (Contact) Hours	36
Total Course Out-of-Class Hours	72
Total Student Learning Hours	108

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education
Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	36
Laboratory	0

NA	0
Total	36
Course Out-of-Class Hours	
Lecture	72
Laboratory	0
NA	0
Total	72

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction	Methods of Instruction
Methods of Instruction	Community based learning project Lecture and visual aids Participatory work groups Cooperative learning and small group activities Collaborative projects Other: Community service learning Guest speakers In-class exploration of Internet sites

Assignments

- A. Readings from textbook and/or supplemental readers, periodicals, or handouts
- B. Reflective essays, journals or worksheets to examine students' own values, practices, and experiences related to working with families
- C. Cultural interview to expand the understanding and awareness of culture and its impact on our daily lives and to learn ways that our experiences are similar to and different from those of someone from another cultural background
- D. Action plan to describe student's goals and next steps based on course experiences.

Methods of Evaluation	Methods of Evaluation
-----------------------	-----------------------

Methods of Evaluation	A. Exams or quizzes to evaluate comprehension and mastery of key terms and concepts as well as application skills related partnerships with families B. Writing assignment(s) to evaluate ability to analyze critically and synthesize course materials and personal experience related to working in partnership with families C. Interview to evaluate the ability to critically analyze families, their culture dynamics and how those dynamics contributes to early learning. D. Completed report on action plan goals and objectives established to improve partnerships with families
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Essential Student Materials/Essential College Facilities Essential Student Materials: - None Essential College Facilities: - None

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Mari R. Riojas-Cortez	Families as Partners in Education; Families and Schools Working Together	Pearson	2021 10th edition	13 9780137413541

Suggested Reading List No Value
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Learning Outcomes
Course Objectives
Explore the values and family support principles that guide our work with families.
Describe how to integrate family centered practice into the early care and education environment.
Define the role of the teacher in creating welcoming environments for families.
Illustrate family involvement and leadership strategies and activities

Distinguish issues to promote strong families; issues of power and support with parents to strengthen them to act as advocates for their children and themselves

Employ strategies to affirm diversity and skills to support cultural awareness, cultural continuity, and cultural humility of families and how to build equitable communities

Create an action plan for supporting the changes in becoming a more family-friendly environment.

CSLOs

Develop knowledge of how to integrate family centered practice into the early care and education environment. Expected SLO Performance: 0

Outline

Course Outline

- A. Explore the values and family support principles that guide our work with families.
 1. Family centered practice increases the capacities of parents to nurture and provide developmental support for their children.
 2. Family centered practice crosses many disciplines and share common premises and beliefs about children, families and communities
 3. Family centered practice focuses on prevention and promoting family and community capacities.
 4. Early care and education programs are natural vehicles for family support.
 5. Adopting a family centered approach requires a value shift to change patterns of thinking and action.
 6. Early childhood practitioners build protective factors for themselves
 7. Early childhood practitioners support families in developing protective factors to support positive family relationships and child development.
 8. Early childhood practitioners achieve behavior change through reflection and understanding personal change, practical skills and policy implications
- B. Describe how to integrate family centered practice into the early care and education environment.
 1. Family centered practice principles act as a guide when shifting the focus from child to family.
 2. All family-centered programs share common characteristics that uphold family support principles.
 3. Child-centered and family-centered programs have distinctive program characteristics.
 4. It is a challenge to change how to think and act. Reflection, sharing perspectives, dialogue and the willingness to change are essential to shifting to a family support value system.
 5. Creating a safe space to work and serve people with LGBTQAI+.
 6. The five protective factors framework is utilized to support families, this includes: a) parental resilience, b) social connections, c) knowledge of parenting and child development, d) concrete support, and e) social and emotional competence of children.
 7. Risk factors and adverse childhood experiences
 8. Practicing effective communication skills to connect with families
 9. Learning and applying Core Competencies in working with families
 - a. Fostering parent leadership and advocacy
 - b. Integrating strategies across systems
 - c. Understanding the principles of family support and how to implement and put into practice family support programming in the early childhood and school site
- C. Define the role of the teacher in creating welcoming environments for families.
 1. Early care and education settings are natural venues for building community.
 2. Every person in the program needs to understand the complexity of family/caregiver relationships, learn good communication skills and make it his or her goal to build strong relationships.
 3. Strategies that support the creation of authentic, caring relationships in early care and education settings include providing a welcoming environment, encouraging families' active involvement, fostering relationships among families and establishing respectful

relationships with families.

4. Building trust between caregivers and families is one of the most essential tasks of quality child development programs.
5. Family-centered programs use a strengths-based approach, rather than focusing on deficits.
6. Engaging in respectful problem-solving techniques and communicating with skill and heart are essential skills in maintaining good family and staff partnerships.

D. Illustrate family involvement and leadership strategies and activities

1. Understanding parents as adults, as teachers and as leaders
2. Building reciprocity, learning and practicing effective two-way communication skills to advance family goals
3. Family involvement has demonstrated benefits for children, families, caregivers, teachers, and programs.
4. By understanding the various factors that can discourage involvement, family support programs can develop practices that welcome families and encourage their participation.
5. Developing a menu of activities, supports and services based on the hopes, needs and preferences of families will increase family involvement in programming and decision-making.
6. Caregivers and staff members need ongoing support to integrate a family-centered approach.
7. A family-centered curriculum is a key ingredient in a quality child development program.
8. Intentional efforts to involve men should include a self-assessment of possible biases against men, a commitment to creating a male presence in the program, and activities and strategies that encourage and sustain male involvement.
9. Assessing family leadership to understand the family and their involvement in the schools, early education programs and within their communities
10. Early childhood practitioners develop strategies to implement protective factors at their early childhood sites
11. Parent leadership and their contributions to children's academic success
12. The community action cycle, individual and collective action-planning tools and strategies to advance change

E. Distinguish issues to promote strong families; issues of power and support with parents to strengthen them to act as advocates for their children and themselves

1. Social support is essential to strong families and healthy communities.
2. Sources of support can be found in informal networks of family and friends, as well as the more formal resources of organizations and established services.
3. Social support provides help that is emotional and practical.
4. Child care is a key component of a family's support network
5. Understanding help-giving and help-seeking and using effective help-giving practices are significant strategies for supporting and promoting strong families.

F. Employ strategies to affirm diversity and skills to support cultural awareness, cultural continuity, and cultural humility of families and how to build equitable communities

1. Culture, an essential building block of identity, is transmitted through families and caregivers.
2. Cultural conflicts can emerge in the caregiving setting. Cultural humility means developing the capacity to work respectfully with all children, families and colleagues and to be a lifelong learner in understanding diverse families.
3. Language contains the shared experience, feelings, history and arts of a culture. Caregivers can help families understand issues about learning a second language and maintaining a home language.
4. Stereotype, prejudice, bias and racism negatively affect the lives of children, their families, caregivers and the larger community.
5. Caregivers can partner with families to recognize injustice and take an uncompromising stand against bias in order to build stronger, inclusive and equitable communities.
6. Reflection is a tool for supporting change. Early childhood practitioners understand and implement reflective practice.

G. Create an action plan for supporting the changes in becoming a more family-friendly environment.

1. Families, early care and education professionals, and community members can work together to create positive change.
2. People can advocate for change in personal life issues as well as community and national political issues.
3. Community organizing provides a relational framework for change that increases individual and group power.
4. Groups attempting to create change are effective when they build teams and nurture leadership.
5. Family support principles and practices can guide social change efforts. Family support programs are committed to making positive change happen for children, families and communities.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

(C D D010G or PSYC D010G) and C D D050.

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Assignments B: Reflective essays, journals or worksheets to examine students' own values, practices and experiences related to working with families.

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

Methods of Evaluation A: Exams or quizzes to evaluate comprehension and mastery of key terms and concepts as well as application skills related partnerships with families.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

Assignments B: Reflective essays, journals or worksheets to examine students' own values, practices and experiences related to working with families.

Objective 5: Identify and practice writing for different audiences and purposes.

Methods of Evaluation C: Interview to evaluate ability to critically analyze families, their culture dynamics and how those dynamics

contributes to early learning.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

Assignments C: Cultural interview to expand the understanding and awareness of culture and its impact on our daily lives and to learn ways that our experiences are similar to and different from those of someone from another cultural background.

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Methods of Evaluation D: Completed report on action plan goals and objectives established to improve partnerships with families.

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Assignments B: Reflective essays, journals or worksheets to examine students' own values, practices and experiences related to working with families.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value
E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value
Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
02/07/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to the course description that emphasize welcoming, student-centered language, as well as a small addition to the description in order to describe the knowledge, skills, and abilities students will gain upon the completion of the course.	"Y"
02/07/2026	Basic Course Information	DEI Review	Suggested	Consider adding additional details to this statement to outline additional great work this course is already doing with respect to equity. For example/such as, more information regarding the DEI/equity content in the course outline, or the multiple means of engagement, action, and expression (in keeping with Universal Design for Learning) shown in the methods of instruction, assignments, and methods of evaluation	"Y"

02/07/2026 Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost (i.e., less than \$50.00), and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Students are allow to use older editions. As long it's the same author and title to give the students the opportunity to rent, borrow or buy these books at low cost. In addition, it's extra copies of the book available for those students that can afford to rent or buty the book kind of a lending library.
02/07/2026 Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	The textbooks of this course reflect diverse authors, voices and perspectives related to the field.
02/07/2026 Specifications	Assignments	Suggested	Do one or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? I see there is a reflective essay assignment, so this may be covered as part of this assignment. If yes, please let me know in the Initiator Response box.	Yes.
02/07/2026 Specifications	Methods of Evaluation	Suggested	Thanks for this clear list of evaluation methods. For any of these evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations? If yes, consider adding this to the relevant evaluation method. If not appropriate, please disregard.	Not appropriate.

Stage 4: Articulation Officer					
No Value					
Stage 5: De Anza General Education					
No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
10/16/26	Req/ Adv	Prerequisite(s)	Required	On this tab you have indicated that the prerequisites can be taken concurrently but on your Matrix G's you state that they must be taken prior to the course. Please clarify so that they match.	
Stage 7: Dean of Online Learning					
No Value					

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO**Sort ID (00 < 10; 0 < 100)**

C D 072

Course Status

Non-substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

C DD103W : Topics in Preschool Program Administration

General Information	
Faculty Initiator:	• Li Sun
Attachments:	Hybrid_CD_103W_2027F.pdf Online_CD_103W_2027F.pdf ReqAdv_G_CD_103W_2027F_1.pdf ReqAdv_G_CD_103W_2027F_2.pdf
Course ID (CB01A and CB01B) :	C DD103W
Short Course Title:	TOPICS: PRE-SCHOOL PRGRM ADMIN
Course Title (CB02) :	Topics in Preschool Program Administration
Department:	C D - Child Development
Effective Term:	Fall 2027
TOP Code (CB03) :	(1305.80) Child Development Administration and Management
CIP Code:	(19.0708) Child Care and Support Services Management
SAM Priority Code (CB09) :	B - Advanced Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000144568
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	Students in administrative or supervisory roles—such as program directors, site supervisors, head teachers, and others—engage in an in-service workshop designed to strengthen their skills and knowledge in child development program administration. Through exploration of relevant and evolving topics, students apply practical strategies to support effective leadership and program quality.
Course Type (CB27) :	• Lower Division
Mode of Delivery:	• Online • Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements	
Discipline 1:	• Child Development/Early Childhood Education
Discipline 2:	No value

Discipline 3:

No value

FSA:

- FHDA FSA - CHILD DEVELOPMENT

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a stand-alone course. It counts toward administration units needed and required to obtain a California Child Development Permit. The course offers students current topics in preschool administration and allows them to remain current in topics relating to early childhood issues. Students are introduced to contemporary methods and ideas in early childhood.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

This course supports students to develop their professional and administration skills in the field of early childhood education based on the following standards. Standard 6: National Association of the Education of Young Children (NAEYC); Standards 9 and 10: National Board for Professional Teaching Standards(NBPTS); Competencies 10 and 11: California Early Childhood Education Competencies; Standard 9 and 10(Initial Standard), Standard 3 (Advanced Standard), and Professional Guidelines 9 and 10 (Special Education Para-educator Common Core Specialty sets for Individuals with Exceptionalities and Deafblindness)Council for Exceptional Children (CEC); Best Practice 1: Leadership (The Division of Early Childhood of the Council for Exceptional Children (Division for Early Childhood); Personnel Competencies for Infant-Family and Early Childhood Mental Health, Revised.

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course includes a course description, course outline, text materials accessible and cost conscious, methods of instruction, assignments and evaluation practices that document student-instructor interactions that are student centered and create an accessible learning environment for all students.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☐ Course is part of a program

Associated Program

No value

Award Type

No value

Active

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Not transferable

Transferability Status

Not transferable

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	1
Maximum Credit Units	1
Total Course In-Class (Contact) Hours	12
Total Course Out-of-Class Hours	24
Total Student Learning Hours	36

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	1	2
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	12
Laboratory	0
NA	0
Total	12
Course Out-of-Class Hours	
Lecture	24
Laboratory	0
NA	0
Total	24

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
---------------	------	----------	--------------

No Value	No Value	No Value	No Value
----------	----------	----------	----------

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Collaborative learning and small group exercises
Guest speakers

Assignments

- A. Reading of topical course materials
- B. Contributions to course discussions
- C. Completion of an individual research project on an aspect of the course topic. The project will be prepared both as a written assignment and as a group presentation, with opportunities for revision based on instructor feedback, peer feedback, and/or self-reflection.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Students will reflect on current national, regional or personal administrative needs and goals through course readings and share their knowledge with each other through class discussions.
- B. Students will discuss, in small and large groups, research and topics relating to current national, regional, or personal administrative needs.
- C. Students will complete an final exam based on the National Association for the Education of Young Children, Early Childhood Program Standards.
- D. Students will demonstrate newly acquired administrative skills and knowledge through the any one of the following written examples, but not limited to; submission of a grant proposal, advocacy letter, action research proposal, or position paper.
- E. Classroom discussion and a written reflection: Students will demonstrate through small group discussion, the ability to empathize with different perspectives presented in the classroom and course materials. Students will demonstrate also the ability to accommodate new administrative schema and skills in early childhood education.
- F. Clear evaluation criteria and examples of successful assignments are provided to support student understanding of expectations and promote equitable and transparent assessment.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References**Author****Title****Publisher****Date/Edition****ISBN**

NAEYC Accreditation, National Association for the Education of Young Children.(2017). National Early Childhood Program Standards and Accreditation Criteria; The Mark of Quality in Early Childhood Education. Washington. DC. National Association for the Education of Young Children.

Perry,G., Henderson.B., & Meier, D.(2012). Our Inquiry, Our Practice: Undertaking, Supporting and Learning from Early Childhood Teacher Research(ers). Washington, DC: National Association for the Education of Young Children.

Suggested Reading List

No Value

Learning Outcomes**Course Objectives**

Develop new skills and knowledge to be applied to preschool administrative issues

Apply skills and knowledge needed for preschool program administration, especially as related to current and regional issues.

CSLOs

Develop new skills and knowledge to be applied to preschool administrative issues.

Expected SLO Performance: 0

Outline

Course Outline

- A. Apply skills and knowledge needed for preschool program administration, especially as related to current and regional issues, including equity related challenges in early childhood systems.
 - 1. Managing the transition to inclusive classrooms within early childhood settings, including addressing inequities and barriers related to race, language, ability, and socioeconomic status.
 - 2. Fundraising and grant writing for early childhood program directors, with attention to equitable access to resources across diverse communities.
 - 3. Implications of "universal preschool" and the preschool movement for regulatory change in California, including issues of equity, access, and systemic disparities in early childhood education.
 - 4. Management of program evaluation and the accreditation process, including consideration of equity and culturally responsive assessment practices.
- B. Develop new skills and knowledge to be applied to preschool administrative issues in diverse early childhood settings.
 - 1. Facilitation in conducting a small action research project related to the course topic, including opportunities to examine inequities or barriers in early childhood systems.
 - 2. Selected readings, videos, and guest lectures, including student presentations on individual research findings that reflect diverse perspectives and experiences in the field.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

C D D010G or PSYC D010G (may be taken concurrently) and C D D050. (may be taken concurrently)

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

(Not open to students with credit in C D D103X, C D D103Y or C D D103Z.)

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

C. Students complete a final exam based on NAEYC standards.

Objective 2: Develop analytical ideas and topics for essays.

A. Students will reflect on current national, regional or personal administrative needs and goals through course readings and share their knowledge with each other through class discussions.

Objective 3: Compose and support thesis statements for analytical essays.

D. Students will demonstrate newly acquired administrative skills and knowledge through the any one of the following written examples, but not limited to; submission of a grant proposal, advocacy letter, action research proposal, or position paper.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

B. Students discuss research and topics in small and large groups.

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

E. Class discussion and written reflection demonstrating perspective-taking and application of new knowledge.

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

G-Matrix Form
If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.
No Value
If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and

No Value

No Value

No Value

No Value

No Value

03/16/2026	Basic Course Information	Course Description	Suggested	Consider revisions to emphasize welcoming, student-centered language and minimizes the use of impersonal, course-centered language.	Y
03/16/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	After review, there are no representative OER textbooks that adequately meet the course objectives. The course uses instructor-selected materials that are low-cost or no-cost, supporting affordability and equitable student access.

03/16/2026 Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Course materials meet universal design standards by using accessible and inclusive language and providing appropriate context for technical concepts. Materials reflect diverse authors, voices, and perspectives, and include current topics and debates relevant to the field and student experiences.
03/16/2026 Specifications	Assignments	Suggested	Does one or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If so, consider noting for appropriate assignment. If not appropriate, let me know in the initiator response box and disregard.	Y
03/16/2026 Specifications	Methods of Evaluation	Suggested	For any of these methods of evaluation, is it possible to provide examples of strong and/or successful assignments to clarify expectations for all students? If appropriate, please consider adding to the relevant evaluation method. If not appropriate, let me know in the initiator response box and disregard.	Y
03/16/2026 Outline	Course Outline	Suggested	If appropriate, consider minor revisions to reflect on inequities, racism, or other barriers to inclusion specific to the course subject. If not appropriate, let me know in the initiator response box and disregard.	Y

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/13/26	Matrix B	All that apply.	Required	Complete Matrix B for your English advisory.	Y

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

C D 103W

Course Status

Non-substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- Related Parent

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

C DD103Z : Topics in Preschool Program Administration

General Information	
Faculty Initiator:	• Li Sun
Attachments:	Hybrid_CD_103Z_2027F .pdf Online_CD_103Z_2027F.pdf ReqAdv_G_CD_103Z_2027F_1 .pdf ReqAdv_G_CD_103Z_2027F_2 .pdf
Course ID (CB01A and CB01B) :	C DD103Z
Short Course Title:	TOPICS: PRE-SCHOOL PRGRM ADMIN
Course Title (CB02) :	Topics in Preschool Program Administration
Department:	C D - Child Development
Effective Term:	Fall 2027
TOP Code (CB03) :	(1305.80) Child Development Administration and Management
CIP Code:	(19.0708) Child Care and Support Services Management
SAM Priority Code (CB09) :	B - Advanced Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000502102
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	Students in administrative or supervisory roles—such as program directors, site supervisors, head teachers, and others—engage in an in-service workshop designed to strengthen their skills and knowledge in child development program administration. Through exploration of relevant and evolving topics, students apply practical strategies to support effective leadership and program quality. This 4-unit course provides expanded time for deeper application, analysis, and integration of course concepts into professional practice.
Course Type (CB27) :	• Lower Division
Mode of Delivery:	• Online • Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	• Child Development/Early Childhood Education
---------------	--

Discipline 2:

No value

Discipline 3:

No value

FSA:

- FHDA FSA - CHILD DEVELOPMENT

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a stand-alone course. It counts toward administration units needed and required to obtain a California Child Development Permit. The course offers students current topics in preschool administration and allows them to remain current in topics relating to early childhood issues. Students are introduced to contemporary methods and ideas in early childhood.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

This course supports students to develop their professional and administration skills in the field of early childhood education based on the following standards. Standard 6: National Association of the Education of Young Children (NAEYC); Standards 9 and 10: National Board for Professional Teaching Standards(NBPTS); Competencies 10 and 11: California Early Childhood Education Competencies; Standard 9 and 10(Initial Standard), Standard 3 (Advanced Standard), and Professional Guidelines 9 and 10 (Special Education Para-educator Common Core Specialty sets for Individuals with Exceptionalities and Deafblindness)Council for Exceptional Children (CEC); Best Practice 1: Leadership (The Division of Early Childhood of the Council for Exceptional Children (Division for Early Childhood); Personnel Competencies for Infant-Family and Early Childhood Mental Health, Revised.

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course includes a course description, course outline, text materials accessible and cost conscious, methods of instruction, assignments and evaluation practices that document student-instructor interactions that are student centered and create an accessible learning environment for all students.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☐ Course is part of a program

Associated Program

No value

Award Type

No value

Active

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Not transferable

Transferability Status

Not transferable

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4
Maximum Credit Units	4
Total Course In-Class (Contact) Hours	48
Total Course Out-of-Class Hours	96
Total Student Learning Hours	144

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education
Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	0
NA	0
Total	48
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
---------------	------	----------	--------------

No Value	No Value	No Value	No Value
----------	----------	----------	----------

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Collaborative learning and small group exercises
Guest speakers

Assignments

- A. Reading of topical course materials
- B. Contributions to course discussions
- C. Completion of an individual research project on an aspect of the course topic. The project will be prepared both as a written assignment and as a group presentation, with opportunities for revision based on instructor feedback, peer feedback, and/or self-reflection.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Students will reflect on current national, regional or personal administrative needs and goals through course readings and share their knowledge with each other through class discussions.
- B. Students will discuss, in small and large groups, research and topics relating to current national, regional, or personal administrative needs.
- C. Students will complete an final exam based on the National Association for the Education of Young Children, Early Childhood Program Standards.
- D. Students will demonstrate newly acquired administrative skills and knowledge through the any one of the following written examples, but not limited to; submission of a grant proposal, advocacy letter, action research proposal, or position paper.
- E. Classroom discussion and a written reflection: Students will demonstrate through small group discussion, the ability to empathize with different perspectives presented in the classroom and course materials. Students will demonstrate also the ability to accommodate new administrative schema and skills in early childhood education.
- F. Clear evaluation criteria and examples of successful assignments are provided to support student understanding of expectations and promote equitable and transparent assessment.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References**Author****Title****Publisher****Date/Edition****ISBN**

NAEYC Accreditation, National Association for the Education of Young Children.(2017). National Early Childhood Program Standards and Accreditation Criteria; The Mark of Quality in Early Childhood Education. Washington. DC. National Association for the Education of Young Children.

Perry,G., Henderson.B., & Meier, D.(2012). Our Inquiry, Our Practice: Undertaking, Supporting and Learning from Early Childhood Teacher Research(ers). Washington, DC: National Association for the Education of Young Children.

Suggested Reading List

No Value

Learning Outcomes**Course Objectives**

Apply skills and knowledge needed for preschool program administration, especially as related to current and regional issues.

Develop new skills and knowledge to be applied to preschool administrative issues

CSLOs

Develop new skills and knowledge to be applied to preschool administrative issues.

Expected SLO Performance: 0

Outline

Course Outline

- A. Apply skills and knowledge needed for preschool program administration, especially as related to current and regional issues, including equity related challenges in early childhood systems.
 - 1. Managing the transition to inclusive classrooms within early childhood settings, including addressing inequities and barriers related to race, language, ability, and socioeconomic status.
 - 2. Fundraising and grant writing for early childhood program directors, with attention to equitable access to resources across diverse communities.
 - 3. Implications of "universal preschool" and the preschool movement for regulatory change in California, including issues of equity, access, and systemic disparities in early childhood education.
 - 4. Management of program evaluation and the accreditation process, including consideration of equity and culturally responsive assessment practices, with expanded analysis and application to professional practice.
- B. Develop new skills and knowledge to be applied to preschool administrative issues in diverse early childhood settings, with expanded depth of study and application.
 - 1. Facilitation in conducting a small action research project related to the course topic, including opportunities to examine inequities or barriers in early childhood systems, with deeper inquiry and application to real-world administrative contexts.
 - 2. Selected readings, videos, and guest lectures, including student presentations on individual research findings that reflect diverse perspectives and experiences in the field, with synthesis and reflection on complex administrative issues.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

C D D010G or PSYC D010G (may be taken concurrently) and C D D050. (may be taken concurrently)

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

(Not open to students with credit in C D D103W, C D D103X or C D D103Y.)

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

C. Students complete a final exam based on NAEYC standards.

Objective 2: Develop analytical ideas and topics for essays.

A. Students will reflect on current national, regional or personal administrative needs and goals through course readings and share their knowledge with each other through class discussions.

Objective 3: Compose and support thesis statements for analytical essays.

D. Students will demonstrate newly acquired administrative skills and knowledge through the any one of the following written examples, but not limited to; submission of a grant proposal, advocacy letter, action research proposal, or position paper.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

B. Students discuss research and topics in small and large groups.

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

E. Class discussion and written reflection demonstrating perspective-taking and application of new knowledge.

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.
No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using th Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/16/2026	Basic Course Information	Course Description	Suggested	Consider revisions to emphasize welcoming, student-centered language and minimizes the use of impersonal, course-centered language.	Y
03/16/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	After review, there are no representative OER textbooks that adequately meet the course objectives. The course uses instructor-selected materials that are low-cost or no-cost, supporting affordability and equitable student access.
03/16/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Course materials meet universal design standards by using accessible and inclusive language and providing appropriate context for technical concepts. Materials reflect diverse authors, voices, and perspectives, and include current topics and debates relevant to the field and student experiences.
03/16/2026	Specifications	Assignments	Suggested	Does one or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If so, consider noting for appropriate assignment. If not appropriate, let me know in the initiator response box and disregard.	Y
03/16/2026	Specifications	Methods of Evaluation	Suggested	For any of these methods of evaluation, is it possible to provide examples of strong and/or successful assignments to clarify expectations for all students? If appropriate, please consider adding to the relevant evaluation method. If not appropriate, let me know in the initiator response box and disregard.	Y
03/16/2026	Outline	Course Outline	Suggested	If appropriate, consider minor revisions to reflect on inequities, racism, or other barriers to inclusion specific to the course subject. If not appropriate, let me know in the initiator response box and disregard.	Y

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/13/26	Matrix B	All that apply	Required	Complete Matrix B for your English advisory	Y
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO
Sort ID (00 < 10; 0 < 100) C D 103Z
Course Status Non-substantial
Course Characteristics CTE
Cross-Listed/Related Course Information Related Child
Cross-Listed/Related Course ID's C D 103W
DL Approval Date (MM/DD/YYYY) No Value
Hybrid Approval Date (MM/DD/YYYY) No Value
Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
 - CCN requisite changes appr. 9/23/24 (effect. F25). -sw
-

Course Outline of Record Report

06/02/2026

CHEMD010. : Introductory Chemistry

General Information

Faculty Initiator:	Chris Deming
Attachments:	Online_CHEM_10_2027F.pdf Hybrid_CHEM_10_2027F.pdf
Course ID (CB01A and CB01B) :	CHEMD010.
Short Course Title:	INTRODUCTORY CHEMISTRY
Course Title (CB02) :	Introductory Chemistry
Department:	CHEM - Chemistry
Effective Term:	Fall 2027
TOP Code (CB03) :	(1905.00) Chemistry, General
CIP Code:	(40.0501) Chemistry, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000064209
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This is an introduction to the discipline of chemistry, including chemical laboratory techniques and methods and a survey of important chemical principles. The course emphasizes chemistry as a subject of scientific inquiry and is designed to give the student a general appreciation for chemistry as a science.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:

- Chemistry

Discipline 2:

No value

Discipline 3:

No value

FSA:

- FHDA FSA - CHEMISTRY

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course meets a general education requirement for De Anza and Cal-GETC. This course belongs to the Liberal Arts degree at De Anza. This course serves as an introduction to chemistry for any student, making fundamental concepts accessible to those pursuing any discipline.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course description clearly describes the skills, such as lab techniques. The course description also describes this class as a general look at the discipline rather than a major-specific course, so any and all students will feel welcome to take if they are interested. There are many assignment types, such as written homework, hands-on lab work, lab reports, and presentations, so students have many ways to show their progress in the course. Descriptions of important components of the lab report are included so students know ahead of time what to expect. Since the idea of measurements and reactions have numerous parallels to everyday life such as building and cooking. Lab manuals are available free online allowing a lower cost course and an OER text example has been added. Methods of instruction list many ways in which the students will be exposed to information including lectures, independent reading, group work, and lab work. Since all information and grades will be housed through canvas, universal design is heavily promoted with the guards built into canvas. The methods of evaluation clearly describes the criteria by which the assignments will be evaluated including specific types of questions expected on exams. Additionally, the expectations of the entire lab process: preparing for lab ahead of time, collaborating with lab partner, and analyzing data with lab partner, are clearly stated, to inform the student what is required for safe lab work. Because this course is designed for students with no previous background in chemistry, the language of the course outline is similarly designed, with the minimization of technical terms when possible. Paper/project topic choice allows students to focus on topics they are more interested in and connect with more. Texts listed have been recently updated for student clarity and understanding. Both texts have 4 or more authors, leading to many different views of the topics. Each lab will require a prelab (preparation for experiment) and a report. Since there are typically ~10

labs, and these assignments will follow the same format, students have an opportunity to build skills and improve over time at both preparing for the experiment as well as analyzing the results afterwards.

Course Development Options		
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 - Pass/No Pass
Repeat Limit 0	Course Prior To College Level Not applicable.	Repeatability Statement No value
Course Support Status (CB26) Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Forensic Criminal Investigation Technician	Certificate of Achievement-Advanced (COA-A)	Fall 2024 to Fall 2026
Forensic Criminal Investigation Technician	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

**Course General Education Status
(CB25)**

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G5X	De Anza GE Area 5 - Natural Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5A	Cal-GETC Area 5A - Physical Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	
C-ID	Area(s)	Status	Approval Date	End Date	-
CHEM	Chemistry	Approved	No value	No value	C-ID CHEM 100

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units 5

Maximum Credit Units	5
Total Course In-Class (Contact) Hours	84
Total Course Out-of-Class Hours	96
Total Student Learning Hours	180

Credit / Non-Credit Options

Course Credit Status (CB04)	Course Non Credit Category (CB22)
Credit - Degree Applicable	Credit Course.

Course Classification Code (CB11)	Funding Agency Category (CB23)	Cooperative Work Experience Education Status (CB10)
Credit Course.	Not Applicable.	☐
☐ Variable Credit Course		

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	3	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	36
NA	0
Total	84
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
Quiz and examination review performed in class
Homework and extended projects
Collaborative learning and small group exercises
Laboratory experience which involve students in formal exercises of data collection and analysis

Assignments

A. Reading

1. Required readings from the textbook in preparation for the scheduled lecture. This may include entire chapters or sections from the chapters covering topics included in this outline.
2. Required readings from the laboratory manual as a preparation for the scheduled experiment in order to provide students with familiarity about the specific laboratory protocols and related safety precautions necessary for successful completion of the experiment.

B. Writing

1. Homework assignments based on classroom discussion/lecture may include answering questions from end-of-chapter exercises or other sources as deemed appropriate by the instructor.
2. Periodic quizzes and mid-term examinations based on material discussed in lectures and/or reading assignments

C. Laboratory Assignments

1. Pre-lab exercise: The pre-lab assignment for the scheduled laboratory experiment to be completed prior to beginning of each new experiment. This assignment may be identical to that provided in the laboratory manual or substituted with other appropriate assignments determined by the instructor.
2. Experiment: Perform the lab experiments safely and efficiently both individually and in groups.
3. Report: Data obtained in laboratory exercises are to be entered in the assigned laboratory manual or a laboratory notebook. Necessary calculations required to obtain the final results from the experiment must be completed in the manual or the notebook as to be determined by the instructor. Detailed lab reports incorporating results and discussions from the experiment will be required.

D. Group Presentations or Papers - Students will work in small groups to develop either short presentations or papers that examine a current topic in a field related to chemistry.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Homework assignments based on end-of-chapter problems from the primary text will be evaluated for completion to test comprehension of lectures.
- B. Periodic quizzes will be used to test the comprehension of topics covered during the lecture and will be evaluated for accuracy of responses.
- C. A minimum of three mid-term examinations will be used to evaluate the ability of students to a) solve problems, b) outline various concepts covered in the lecture, and c) demonstrate an understanding of reading assignments. These will be evaluated for accuracy to assess student progress in achieving various learning outcomes.
- D. A comprehensive final examination in any chosen format

(multiple choice questions or free response) will be based on all the course material covered during the entire quarter and evaluated for accuracy of responses.

E. Prelab assignments will be evaluated on completeness and level of preparedness

required for safe and timely execution of laboratory protocols and experiments

F. Lab experiments will be evaluated based on compliance to safety protocols, adherence to instructions, the equality of the division of labor, and the nature and depth of results discussion with lab partner(s).

G. Report sheets and/or laboratory reports will be evaluated for successful completion of laboratory experiments as well as accuracy of data analysis and interpretation.

H. A comprehensive laboratory examination will be used to evaluate the student understanding of the various concepts discussed in the different experiments performed during the course. Concepts evaluated will include: a) general laboratory protocol b) comprehension of data analysis and interpretation and c) critical thinking as it pertains to the scientific method.

I. Group Presentations or Papers will be evaluated based on analysis of the topic through the lens of chemistry, accessibility of information to the audience, proper citation of sources, and clarity of presentation/writing.

Essential Student Materials/Essential College Facilities

Essential Student Materials

- Safety glasses, laboratory notebook

Essential College Facilities

- Fully equipped chemical laboratory including, at a minimum, the following: consumable chemicals, chemical balances, glassware, molecular models, fume hoods, chemical disposal facilities, lockable student storage areas, and laboratory technician

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Hill, John W., McCreary, Terry W., Reuter, Rill Ann., Duerst, Marilyn D.	Chemistry for Changing Times	Pearson	2020/15th Edition	978-0134878102
Flowers, Theopold, Langley, and Robinson	Chemistry	Open Stax	2019/2e	978-1-947172-62-1
De Anza Chemistry Department	De Anza Chemistry Department Introductory Chemistry Lab Manual		2023	

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Examine the historical development of concepts concerned with the fundamental building blocks of matter - atoms and molecules - and their concomitant effect on our understanding of molecular structure.

Assess the importance of the mole concept in stoichiometric calculations.

Explore the relationship between the molecular structures of compounds and their effect on the chemical properties of compounds.

Explore the contributions of men and women from a variety of cultures and ethnic backgrounds to the field of chemistry.

Evaluate ethical issues and environmental effects, from local to global, that have arisen from the extraction, use and disposal of chemicals.

CSLOs

Develop problem solving techniques by applying the "Scientific Method" to chemical data.

Expected SLO Performance: 0

Analyze and solve chemical questions utilizing information presented in the periodic table of the elements.

Expected SLO Performance: 0

Evaluate current scientific theories and observations utilizing a scientific mindset and an understanding of matter and the changes it undergoes.

Expected SLO Performance: 0

Outline

Course Outline

- A. Examine the historical development of concepts concerned with the fundamental building blocks of matter - atoms and molecules - and their concomitant effect on our understanding of molecular structure.
 - 1. Atomic theory of matter
 - a. Law of definite proportions
 - b. Law of multiple proportions
 - c. Dalton's atomic theory
 - d. Bohr model of the atom
 - e. Quantum Mechanical Model of the Atom
 - 2. Periodic table of the elements
 - 3. Radiodecay
 - 4. Quantum mechanics
- B. Assess the importance of the mole concept in stoichiometric calculations.
 - 1. Establishing chemical formulas

- a. The mole and its relationship to the gram
 - b. Atomic and molecular mass
 - c. Percent composition
 - d. Nomenclature of simple molecules
- 2. Reaction stoichiometry
 - a. Dimensional analysis and conversion factors
 - b. Solutions and calculating concentration
 - c. Theoretical yield, actual yield, and percent yield
 - d. Acid-base reactions and titration
- C. Explore the relationship between the molecular structures of compounds and their effect on the chemical properties of compounds.
 - 1. Covalent and ionic bonding
 - 2. Molecular geometries
 - 3. Molecular dipoles and polarity
 - 4. Intermolecular forces and their effects on physical properties of a substance.
- D. Explore the contributions of men and women from a variety of cultures and ethnic backgrounds to the field of chemistry.
 - 1. Contributions of individuals to areas of chemical research, such as but not limited to the following:
 - a. Greek origins of atomic theory - Leucippus and Democritus
 - b. Alchemy and the flourishing of science in the Islamic world - al-Razi
 - c. Development of the Scientific Method - Francis Bacon, Rene Descartes
 - d. Discovery of gasses and the development of quantitative analysis - Joseph Black, Joseph Priestly, Robert Boyle, Antoine Lavoisier, Marie-Anne Lavoisier
 - e. Early atomic theory - Joseph Proust, John Dalton, Amedeo Avogadro
 - f. Electricity and the prelude to modern atomic theory - Benjamin Franklin, Luigi Galvani, Alessandro Volta, Michael Faraday, Joseph Thomson, Robert Millikan
 - g. Modern atomic theory - Ernest Rutherford, Niels Bohr, Max Planck, Albert Einstein, Louis-Victor de Broglie, Erwin Schrodinger
 - h. Bonding and molecular structure - Jacobus Henricus van't Hoff, Joseph Achille Le Bel, Gilbert Newton Lewis, Irving Langmuir
 - i. Radioactivity - Marie Curie
 - j. Organic and biological chemistry - Hermann Emil Fischer, Rosalind Franklin
 - 2. Examples of chemistry and its relationship to society in various cultures
- E. Evaluate ethical issues and environmental effects, from local to global, that have arisen from the extraction, use and disposal of chemicals.
 - 1. Environmental impacts and reclamation
 - 2. Human impacts of chemical industrialization (example: Bhopal disaster)
 - 3. Human impacts of medical research (examples: thalidomide)
 - 4. Evaluate the impact of the field of chemistry on current events

Lab Outline

- A. Laboratory methodology
 - 1. Maintaining a laboratory notebook
 - 2. Writing laboratory reports
- B. Chemical safety
 - 1. Materials safety data sheets (MSDS)
 - 2. Chemical disposal
 - a. Separation of waste streams
 - b. Proper disposal methods
 - c. Environmental hazards of improper waste disposal
 - 3. Laboratory environment
 - a. Maintaining laboratory cleanliness
 - b. Chemical labeling
 - c. Segregation of chemicals in storage
 - d. Secondary containment
 - 4. Personal safety
 - a. Safety goggles
 - b. Limiting chemical exposure
 - c. Safety showers
 - d. Eyewash stations
 - e. Types and use of fire extinguishers
 - 5. Emergency situations
 - a. Fires

- b. Earthquakes
 - c. Chemical spills
 - d. Evacuation procedures
- C. Group and Individual Experiments
 - 1. Organization and communication of duties with lab partner(s)
 - 2. Discussion of results with lab partner(s)
 - 3. Discussion of sources of error with lab partner(s)
- D. Gravimetric analysis
 - 1. Taring
 - 2. Mass by difference
 - 3. Mass percentage
- E. Laboratory techniques
 - 1. Proper ignition of Bunsen burners
 - 2. Use of pipettes
- F. Chemical analysis
 - 1. Acid-base titration and use of indicators
 - 2. Physical versus chemical properties
 - 3. Stoichiometric analysis

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Assignment A1: Required readings from the textbook in preparation for the scheduled lecture. This may include entire chapters or sections from the chapters covering topics included in this outline. Assignment A2: Required readings from the laboratory manual as a preparation for the scheduled experiment in order to provide students with familiarity about the specific laboratory protocols and related safety precautions necessary for successful completion of the experiment.

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

Assignment C3: Report: Data obtained in laboratory exercises are to be entered in the assigned laboratory manual or a laboratory notebook. Necessary calculations required to obtain the final results from the experiment must be completed in the manual or the notebook as to be determined by the instructor. Detailed lab reports incorporating results and discussions from the experiment will be required.

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Assignment C3: Report: Data obtained in laboratory exercises are to be entered in the assigned laboratory manual or a laboratory notebook. Necessary calculations required to obtain the final results from the experiment must be completed in the manual or the notebook as to be determined by the instructor. Detailed lab reports incorporating results and discussions from the experiment will be required.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Outline A: Examine the historical development of concepts concerned with the fundamental building blocks of matter - atoms and molecules - and their concomitant effect on our understanding of molecular structure. Outline C: Explore the relationship between the molecular structures of compounds and their effect on the chemical properties of compounds.

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Written Communication: Lab Outline 2A Writing Lab Reports, Assignments B1 Homework assignments based on classroom discussion/ lecture may include answering questions from end-of-chapter exercises or other sources as deemed appropriate by the instructor. Verbal Communication: Lab Outline 3B Discussion of results with lab partner(s), Lab Outline 3C Discussion of sources of error with lab partner(s) Collaborative Exercises: Lab Outline 3 Group and Individual Experiments, Assignments D Group Presentations or Papers - Students will work in small groups to develop either short presentations or papers that examine a current topic in a field related to chemistry.

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline A Examine the historical development of concepts concerned with the fundamental building blocks of matter - atoms and molecules - and their concomitant effect on our understanding of molecular structure.

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline D: Explore the contributions of men and women from a variety of cultures and ethnic backgrounds to the field of chemistry

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline E: Evaluate ethical issues and environmental effects, from local to global, that have arisen from the extraction, use, and disposal of chemicals.

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Lab Outline A1 Maintaining a laboratory notebook, Lab Outline A2 Writing laboratory reports, Lab Outline E: Laboratory Techniques

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/23/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to use welcoming, student-centered language and minimize the use of impersonal, course-centered language.	Y
03/23/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate (you mention "Lab manuals are available free online allowing a lower cost course" in the DEI statement). This will satisfy the required component of this edit.	Added an OER option for the text example. Included this and the free lab text in the DEI box.
03/23/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	All texts listen have been recently updated for student clarity and overall understanding. Both text have 4 or more authors, leading to many different views of the topics.
03/23/2026	Specifications	Assignments	Suggested	Do assignments do one of the following: (1) One or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection; (2) Encourage students to connect course content to their own life, background, and experiences. If yes, consider noting for relevant assignment. If not, just let me know in initiator response box.	The group presentation/paper allows students to focus on a topic they are more interested in which can relate to life, family, work, etc...
03/23/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, If yes, consider noting for relevant evaluation. If not appropriate, let me know in initiator response box.	While it might not be the same assignment, they will do the same type of assignment over and over. For examples, each lab will require a prelab(preparation for experiment) and a report. So there is opportunity to build on previous work. Would this be worth adding? 4/28/26 @9:17 PM update - I have added a statement about building skills through repeat assignments. Thanks for the help.

Stage 4: Articulation Officer
No Value
Stage 5: De Anza General Education
No Value
Stage 6: Content Review Matrix Liaison
No Value
Stage 7: Dean of Online Learning
No Value
Stage 8: SLO Coordinator
No Value
Stage 10: Curriculum Committee
No Value

CO
Sort ID (00 < 10; 0 < 100)
CHEM 010
Course Status
Non-substantial
Course Characteristics
• NA
Cross-Listed/Related Course Information
• NA
Cross-Listed/Related Course ID's
No Value
DL Approval Date (MM/DD/YYYY)
No Value

Hybrid Approval Date (MM/DD/YYYY)

02/21/2023

Curriculum Office Notes

- DE updated 10/03/2022. MK.
- Hybrid appr. 02/21/2023 (effect. S23).- mc
- Requisite change appr. 1/17/23 (effect. F23).-cc
- Tech change only, remove MATH advisory 2/7/24 (effect. F23).-mkct
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/02/2026

CHEMD025. : Preparation Course for General Chemistry

General Information

Faculty Initiator:	- Chris Deming - Gray, David
Attachments:	Online_CHEM_25_2027F.pdf Hybrid_CHEM_25_2027F.pdf
Course ID (CB01A and CB01B) :	CHEMD025.
Short Course Title:	PREP FOR GENERAL CHEMISTRY
Course Title (CB02) :	Preparation Course for General Chemistry
Department:	CHEM - Chemistry
Effective Term:	Fall 2027
TOP Code (CB03) :	(1905.00) Chemistry, General
CIP Code:	(40.0501) Chemistry, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000317792
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course is an introduction to the core theory and problem-solving techniques of chemistry as preparation for CHEM D001A and CHEM D01AH and other science-related fields, as well as gravimetric and volumetric analysis, rudimentary laboratory equipment and operations, and the preparation and maintenance of a laboratory notebook.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:

- Chemistry

Discipline 2:

No value

Discipline 3:

No value

FSA:

- FHDA FSA - CHEMISTRY

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a preparatory course for entry into the General Chemistry sequence, which is the primary course sequence that is a major preparation requirement in the discipline of Chemistry at all CSUs and UCs. This course meets general education requirements for De Anza and Cal-GETC.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course description clearly describes the skills, such as lab techniques. The course description also indicates this class provide preparation for the general chemistry series, allowing hesitant and/or beginning students another step towards completing the general chemistry series before jumping ring in. There are many assignment types, such as written homework, hands-on lab work, lab reports, and presentations, so students have many way to show their progress in the course. Descriptions of important components of the lab report are included so students know ahead of time what to expect. Since the idea of measurements and reactions have numerous parallels to everyday life such as building and cooking, students will have opportunities to connect past experiences to course ideas. OER examples have been added. Methods of instruction list many ways in which the students will be exposed to information including lectures, independent reading, and lab work. Since all information and grades will be housed through canvas, universal design is heavily promoted with the guards built into canvas. The methods of evaluation clearly describes the criteria by which the assignments will be evaluated including specific types of questions expected on exams. Additionally, the expectations of the entire lab process: preparing for lab ahead of time, collaborating with lab partner, and analyzing data with lab partner, are clearly stated, to inform the student what is required for safe lab work. Because this course is designed for students with no previous background in chemistry, the language of the course outline is similarly designed, with the minimization of technical terms when possible. Each lab will require a prelab (preparation for experiment) and a report. Since there are typically ~10 labs, and these assignments will follow the same format, students have an opportunity to build skills and improve over time at both preparing for the experiment as well as analyzing the results afterwards. Throughout each chapter, the text book connects to everyday life

helping student build connections between what they learn and how it helps the world.

Course Development Options

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

• Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒ Course is part of a program

Associated Program	Award Type	Active
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G5X	De Anza GE Area 5 - Natural Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA5A	Cal-GETC Area 5A - Physical Science	Approved	No value	No value	No - defined.
CA5C	Cal-GETC Area 5C - Science Laboratory	Approved	No value	No value	
C-ID	Area(s)	Status	Approval Date	End Date	-
CHEM	Chemistry	Approved	No value	No value	C-ID CHEM 101

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	5
Maximum Credit Units	5
Total Course In-Class (Contact) Hours	84
Total Course Out-of-Class Hours	96
Total Student Learning Hours	180

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	3	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	36
NA	0
Total	84
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises Laboratory experience which involve students in formal exercises of data collection and analysis Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises

Assignments	
A. Reading	
1. Required readings from the textbook in preparation for the scheduled lecture. This may include entire chapters or sections from the chapters covering topics included in this outline.	
2. Required readings from the laboratory manual as a preparation for the scheduled experiment in order to provide students with familiarity about the specific laboratory protocols and related safety precautions necessary for successful completion of the experiment.	
B. Writing	
1. Homework assignments based on classroom discussion/lecture may include answering questions from end-of-chapter exercises or other sources as deemed appropriate by the instructor.	
2. Periodic quizzes and mid-term examinations based on material discussed in lectures and/or reading assignments.	
C. Laboratory assignments	
1. Pre-lab exercise: The pre-lab assignment for the scheduled laboratory experiment to be completed prior to beginning of each new experiment. This assignment may be identical to that provided in the laboratory manual or substituted with other appropriate assignments determined by the instructor.	
2. Experiment: Perform the lab experiments safely and efficiently both individually and in groups	
3. Report: Data obtained in laboratory exercises are to be entered in the assigned laboratory manual or a laboratory notebook. Necessary calculations required to obtain the final results from the experiment must be completed in the manual or the notebook as to be determined by the instructor. Detailed lab reports incorporating results and discussions from the experiment will be required.	

Methods of Evaluation	
Methods of Evaluation	A. Homework assignments based on end-of-chapter problems from the primary text will be evaluated to test comprehension of lectures. B. Periodic quizzes will be used to test the comprehension of

topics covered during the lecture and will be evaluated for accuracy of responses.

- C. A minimum of three mid-term examinations will be used to evaluate the ability of students to a) solve problems, b) outline various concepts covered in the lecture, and c) demonstrate an understanding of reading assignments. These will be evaluated for accuracy to assess student progress in achieving various learning outcomes.
- D. A comprehensive final examination in any chosen format (multiple choice questions or free response) will be based on all the course material covered during the entire quarter and evaluated for accuracy of responses.
- E. Pre-lab assignments will be evaluated for completeness and level of preparedness required for safe and timely execution of laboratory protocols and experiments.
- F. Lab experiments will be evaluated based on compliance to safety protocols, adherence to instructions, the equality of the division of labor, and the nature and depth of results discussion with lab partner(s).
- G. Report sheets and/or laboratory reports will be evaluated for successful completion of laboratory experiments as well as accuracy of data analysis and interpretation.
- H. A comprehensive laboratory examination will be used to evaluate the student understanding of the various concepts discussed in the different experiments performed during the course. Concepts evaluated will include: a) general laboratory protocol b) comprehension of data analysis and interpretation and c) critical thinking as it pertains to the scientific method.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- Chemistry department approved safety goggles

Essential College Facilities:

- Fully equipped chemical laboratory including, at a minimum, the following: consumable chemicals, chemical balances, glassware, molecular models, fume hoods, chemical disposal facilities, and lockable student storage areas

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Tro, Nivaldo	Introductory Chemistry	Pearson	2023/7th edition	978-0137922642
Subramaniam	Preparation for General Chemistry (Lab Manual)	McGraw Hill (Custom Publishing)	2017	9781307817706
Alviar-Agnew, Marisa, Agnew Henry	Introductory Chemistry	Libre Texts	-	https://chem.libretexts.org/Bookshelves/Introductory_Chem

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Explore the core concepts of modern atomic and molecular theory.

Assess the importance of the mole concept in stoichiometric calculations.

Apply fundamental mathematical concepts to the proper collection and evaluation of experimental data.

Explore the various gas laws and understand the relationships between pressure, temperature, and volume of a gas.

Differentiate between standard classes of chemical reactions.

Acquire an elementary understanding of thermochemistry

Explore the discipline of chemistry from a cultural, historical, and societal perspective.

CSLOs

Assess the fundamental concepts of modern atomic and molecular theory.

Expected SLO Performance: 0

Evaluate the standard classes of chemical reactions.

Expected SLO Performance: 0

Demonstrate a fundamental understanding of mathematical concepts pertaining to chemical experimentation and calculations.

Expected SLO Performance: 0

Outline

Course Outline

- A. Explore the core concepts of modern atomic and molecular theory.
 - 1. Atomic theory
 - a. Isotopes, subatomic particles, and isotopic distribution
 - b. Identification of periodic trends and development of the periodic table
 - c. Lewis electron dot structures and the octet rule
 - 2. Molecular theory
 - a. Covalent and ionic bonding
 - b. Molecular geometry
 - c. Bond versus molecular polarity
 - d. Intermolecular forces and their effect on the physical properties of a liquid
- B. Assess the importance of the mole concept in stoichiometric calculations.
 - 1. Development of the mole concept
 - a. Law of conservation of mass
 - b. Law of definite proportions
 - c. Law of multiple proportions
 - d. Avogadro's number and its implicit relationship to the gram
 - 2. Establishing molecular formulas
 - a. Atomic and molecular mass
 - b. Percent composition
 - c. Empirical versus molecular formulas
 - d. Nomenclature of simple molecules
 - 3. Reaction stoichiometry
 - a. Balancing chemical equations
 - b. Conversion factors
 - c. Concentration
 - d. Limiting reagents
 - e. Theoretical yield, actual yield, and percent yield
- C. Apply fundamental mathematical concepts to the proper collection and evaluation of experimental data.
 - 1. Numerical representation
 - a. Scientific notation
 - b. Significant figures
 - c. Rounding
 - 2. Accuracy versus precision
 - 3. Systems of units
 - a. Imperial units
 - b. SI units
 - 4. Dimensional analysis
- D. Explore the various gas laws and understand the relationships between pressure, temperature, and volume of a gas.
 - 1. Boyle's law; Charles law; Avogadro's law
 - 2. Combined gas law
 - 3. Gas-forming reactions
 - 4. Stoichiometric calculations using gas laws
- E. Differentiate between standard classes of chemical reactions.
 - 1. Acid-base reactions
 - a. Definitions and properties of acids and bases
 - b. The pH scale
 - c. Acid-base neutralization
 - d. Titration
 - 2. Oxidation-reduction (redox) reactions
 - a. Oxidation states
 - b. Half-reactions
 - c. Oxidizing and reducing agents
 - 3. Gas-forming reactions
- F. Acquire an elementary understanding of thermochemistry
 - 1. Law of conservation of energy
 - 2. Exothermic versus endothermic reactions
 - 3. Heat flow
 - 4. Measurement of heat of a reaction by calorimetry
- G. Explore the discipline of chemistry from a cultural, historical, and societal perspective.
 - 1. Assess the contributions of different cultures and genders to the discipline of chemistry, such as but not limited to Jabir ibn Hayyan, Rosalind Franklin, Percy Lavon Julian, Marie Curie, John Dalton, Dorothy Hodgkin, Democritus, Stephanie Kwolek, Robert Boyle, and

Antoine Lavoisier.

2. Assess the impacts of chemistry as a discipline on society, such as but not limited to environmental stewardship, polymers and the creation of plastics and artificial fibers, the extraction of aluminum and other metals through electrolysis, the impact of refrigerants on atmospheric chemistry, and the medicinal use of radioisotopes.

Lab Outline

A. Laboratory Methodology

1. Maintaining a laboratory notebook
2. Writing laboratory reports

B. Chemical Safety

1. Materials safety data sheets (MSDS)
2. Chemical disposal
 - a. Separation of waste streams
 - b. Proper disposal methods
 - c. Environmental hazards of improper waste disposal
3. Laboratory Environment
 - a. Maintaining laboratory cleanliness
 - b. Chemical labeling
 - c. Segregation of chemicals by hazard
 - d. Secondary containment
4. Personal Safety
 - a. Safety goggles
 - b. Limiting chemical exposure
 - c. Safety showers
 - d. Eyewash stations
 - e. Proper use of the fire extinguishers
5. Emergency Situations
 - a. Fires
 - b. Earthquakes
 - c. Evacuation procedures

C. Group and individual experiments

1. Organization and communication of duties with lab partner(s)
2. Discussion of experimental results lab partners(s)
3. Discussion of sources of error with lab partners(s)

D. Physical Measurements

1. Gravimetric Analysis
 - a. Taring
 - b. Mass by difference
2. Boiling Points

E. Laboratory Techniques

1. Proper ignition of Bunsen burners
2. Use of pipettes

F. Chemical Analysis

1. Gravimetric analysis of a hydrate
2. Acid-base titration and use of indicators
3. Determination of density
4. Classes of chemical reactions
5. Physical vs. chemical properties
6. Stoichiometric analysis

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: No Value
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): • (See general education pages for the requirements this course meets.)
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. No Value
Objective 2: Compose essays drawn from personal experience and assigned texts. No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page. No Value
Objective 4: Create syntactically varied sentences that are free of mechanical errors. Assignments C Laboratory Assignments 2 Report: Data obtained in laboratory exercises are to be entered in the assigned laboratory manual or a laboratory notebook. Necessary calculations required to obtain the final results from the experiment must be completed in the

manual or the notebook as to be determined by the instructor. Detailed lab reports incorporating results and discussions from the experiment will be required. Methods of evaluation E Pre-lab assignments will be evaluated for completeness and level of preparedness required for safe and timely execution of laboratory protocols and experiments. Method of Evaluation G Report sheets and/or laboratory reports will be evaluated for successful completion of laboratory experiments as well as accuracy of data analysis and interpretation.

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Outline G2 Assess the impacts of chemistry as a discipline on society, such as but not limited to environmental stewardship, polymers and the creation of plastics and artificial fibers, the extraction of aluminum and other metals through electrolysis, the impact of refrigerants on atmospheric chemistry, and the medicinal use of radioisotopes

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

Outline B: Assess the importance of the mole concept in stoichiometric calculations.

Objective 3: Explore functions.

Outline D: Explore the various gas laws and understand the relationships between pressure, temperature, and volume of a gas.

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

Outline C: Apply fundamental mathematical concepts to the proper collection and evaluation of experimental data

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

Outline E1b: The pH scale

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

G-Matrix Form
If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.
No Value
If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Outline A: Explore the core concepts of modern atomic and molecular theory. Outline E: Differentiate between standard classes of chemical reactions.

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Written Communication: Lab Outline B2: Writing Lab Reports, Assignment B1 Homework assignments based on classroom discussion/ lecture may include answering questions from end-of-chapter exercises or other sources as deemed appropriate by the instructor. Verbal Communication: Lab Outline C2 Discussion of experimental results lab partners(s) and C3 Discussion of sources of error with lab

partners(s). Collaborative: Lab Outline C Group and individual experiments, C1 Organization and communication of duties with lab partner(s), C2 Discussion of experimental results lab partners(s), C3 Discussion of sources of error with lab partners(s)

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Assignment C3 Report: Data obtained in laboratory exercises are to be entered in the assigned laboratory manual or a laboratory notebook. Necessary calculations required to obtain the final results from the experiment must be completed in the manual or the notebook as to be determined by the instructor. Detailed lab reports incorporating results and discussions from the experiment will be required.

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Outline G1 Assess the contributions of different cultures and genders to the discipline of chemistry, such as but not limited to Jabir ibn Hayyan, Rosalind Franklin, Percy Lavon Julian, Marie Curie, John Dalton, Dorothy Hodgkin, Democritus, Stephanie Kwolek, Robert Boyle, and Antoine Lavoisier.

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Outline G Explore the discipline of chemistry from a cultural, historical, and societal perspective.

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using th Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline G2 Assess the impacts of chemistry as a discipline on society, such as but not limited to environmental stewardship, polymers and the creation of plastics and artificial fibers, the extraction of aluminum and other metals through electrolysis, the impact of refrigerants on atmospheric chemistry, and the medicinal use of radioisotopes.

Comments

Stage 2: Department Chair

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/21/26	Specifications	Examples of Primary Texts	Required	Please add examples of primary texts for the lab curriculum	Y

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
5/4/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to emphasize welcoming, student-centered language and minimize the use of impersonal, course-centered language, and to describe the knowledge, skills, and abilities students will gain upon the completion of the course	I had some edits to update the language that I ran by the department and got some heavy push back.

5/4/2026 Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References reflect diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Unfortunately, it seems all of these books have only 1 or 2 authors. These is quite a bit on relating chem to everyday life in the Tro book, I added that.
5/4/2026 Specifications	Assignments	Suggested	Do assignments do one or more of the following: (1) Provide choices in how students demonstrate proficiency; (2) Encourage students to connect course content to their own life, background, and experiences; (3) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If yes, consider revisions to clarify this for the relevant assignment(s). If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	This one is similar to chem 10 where the repeated type of assignments (prelabs and reports) give a chance for students to improve, but not necessarily to redo the assignment.
5/4/2026 Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	This might be something some instructors do, but its not something we have built into the curriculum yet, so we probably cant add this one.

Stage 4: Articulation Officer

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
05/05/26 Specifications	Primary Texts	Required		All science classes with labs are required to have a lab manual listed. you had one previously, but removed it. Please add one back- it's a requirement for UC-transferability. Thank you!	Y - Specified the lab manual

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

No Value

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CHEM 025

Course Status

Non-substantial

Course Characteristics

- NA

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

10/27/2020

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

- Requisite change appr. 4/21/20 (effect. F20).-mkct
- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

Course Outline of Record Report

06/02/2026

CHEMD077X : Special Projects in Chemistry

General Information

Faculty Initiator:	Chris Deming
Attachments:	ReqAdv_G_CHEM_77X_2027F.pdf
Course ID (CB01A and CB01B) :	CHEMD077X
Short Course Title:	SPEC PROJ IN CHEMISTRY
Course Title (CB02) :	Special Projects in Chemistry
Department:	CHEM - Chemistry
Effective Term:	Fall 2027
TOP Code (CB03) :	(1905.00) Chemistry, General
CIP Code:	(40.0501) Chemistry, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	No
Course Control Number:	CCC000254496
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course involves individual research in the chemical sciences, with specific projects determined in consultation with the instructor. Outside reading and a final project are required.
Course Type (CB27) :	Lower Division
Mode of Delivery:	In person ONLY
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Chemistry
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - CHEMISTRY

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This is a stand-alone, CSU transferable course. This course satisfies increasing student demand for more opportunities to develop skills beyond the classroom, such as designing original research projects, analyzing chemical science literature, or studying current topics in a selected area of chemistry.

Stand-Alone Statement

Stand-Alone Statement

This course does not fit into any certificate/degree program or GE pathway because the specific focus, assignments, projects, references, and assessments will vary depending on student interest and instructor availability. Therefore, the exact content and work completed cannot be classified before students enroll in the course. The purpose of this course is to offer opportunities for students to develop skills beyond the classroom, such as designing original research projects, analyzing chemical science literature, or studying current topics in a selected area of chemistry they are interested in. The audience for this course is primarily for students who have completed at least one quarter of chemistry but may otherwise be permitted in special circumstances.

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

Brendon Mar

Foothill Course ID

CHEM 71R

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☐ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Since aspects of the class such as meeting hours and assignments types are chosen by the student and instructor at the beginning of the quarter students who work or have full/tight schedules can still enroll. Because enrollment is not based on an ultra-competitive application process, this class supports advancing out-of-classroom skills for all de Anza students where traditional internships would be out of reach. Furthermore, the 1-on-1 nature of this class provides more intimate and collaborative student-instructor interactions, thus facilitating progress and growth for hesitant or non-traditional students.

Course Development Options

Basic Skill Status (CB08)

Course Special Class Status (CB13)

Grade Options

Course is not a basic skills course.	Course is not a special class.	• Pass/No Pass
Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs

☐ Course is part of a program

Associated Program	Award Type	Active
No value	No value	

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)	Transferability Status
Transferable to CSU only	Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	2
Maximum Credit Units	2
Total Course In-Class (Contact) Hours	72
Total Course Out-of-Class Hours	0
Total Student Learning Hours	72

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	6	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	72
NA	0
Total	72
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
NA	0
Total	0

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Discussion and problem-solving performed in class
In-class essays
In-class exploration of internet sites

Assignments

- A. To be determined in consultation with the instructor and may come in the form of an exam, a report, or a presentation. See Sections 3 and 4 of the Special Projects Contract.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Final project (exam, report, presentation,...) will be evaluated based on completeness, accuracy, and adherence to requirements and objectives specified in Sections 3, 4, and 5 of the Special Projects Contract

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Essential College Facilities:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Examples of Primary Texts and References

Author

Title

Publisher

Date/Edition

ISBN

To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Complete project objectives/requirements as determined in sections 3, 4, and 5 of the Special Projects Contract.

CSLOs

Apply the fundamental concepts, methods and procedures of the chemistry topic as determined in sections 3 & 4 of the Special Projects Contract.

Expected SLO Performance: 0

Outline

Course Outline

- A. Complete project objectives/requirements as determined in sections 3, 4, and 5 of the Special Projects Contract.
1. Formulate a proposal statement for a feasible project.
 2. Demonstrate skills in the analysis of current chemical literature related to the chosen research topic.
 3. Assist in duties as an instructional assistant in Chemistry classes.
 4. Design an original project based on chemical topics taught at De Anza College.
 5. Demonstrate a critical understanding of current problems in a selected area of chemistry.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

No Value

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Consent of instructor and division dean and an approved Special Projects Contract is required.)

Limitation(s) on Enrollment - Other:

(Not open to students with credit in CHEM D077. or CHEM D077Y.)

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value
Objective 2: Compose essays drawn from personal experience and assigned texts.
No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.
No Value
Objective 4: Create syntactically varied sentences that are free of mechanical errors.
No Value
Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.
No Value

B-Matrix Form
ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.
No Value
Objective 2: Develop analytical ideas and topics for essays.
No Value
Objective 3: Compose and support thesis statements for analytical essays.
No Value
Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.
No Value
Objective 5: Identify and practice writing for different audiences and purposes.
No Value
Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.
No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.
No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

This special projects course requires consent of the instructor and division dean, in addition to a completed special projects contract.

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value
Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/16/2026	Basic Course Information	Course Description	Suggested	Consider revising to emphasize welcoming, student-centered language and minimizes the use of impersonal, course-centered language.	Y
03/16/2026	Specifications	Methods of Evaluation	Suggested	I believe this assignment is indicating that there are choices is the final project format -- yes, consider minor revisions to clarify. If not appropriate, please let me know in the initiator response box.	I added some info to the assignment section to make it clear there is choice of assignment but did not change MoE since it has better context now.
Stage 4: Articulation Officer					
No Value					

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/9/26	Matrix H	Objective 2	Required	Complete for your Limitation on Enrollment	Y

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/26/2026	Learning Outcomes	CSLO #1	Required	State as a learning outcome by starting the statement with a Bloom's Taxonomy verb. Some suggestions: • Explain the fundamental concepts of the Chemistry topic. • Apply the fundamental concepts of the Chemistry topic. • Apply the fundamental concepts, methods and procedures of the chemistry topic as determined in sections 3 & 4 of the Special Projects Contract.	Y

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CHEM 077X

Course Status

Non-substantial

Course Characteristics

No Value

Cross-Listed/Related Course Information

- Related Child

Cross-Listed/Related Course ID's

CHEM 77

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

No Value

Course Outline of Record Report

06/02/2026

CHEMD077Y : Special Projects in Chemistry

General Information

Faculty Initiator:	Chris Deming
Attachments:	ReqAdv_G_CHEM_77Y_2027F.pdf
Course ID (CB01A and CB01B) :	CHEMD077Y
Short Course Title:	SPEC PROJ IN CHEMISTRY
Course Title (CB02) :	Special Projects in Chemistry
Department:	CHEM - Chemistry
Effective Term:	Fall 2027
TOP Code (CB03) :	(1905.00) Chemistry, General
CIP Code:	(40.0501) Chemistry, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	No
Course Control Number:	CCC000004370
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course involves individual research in the chemical sciences, with specific projects determined in consultation with the instructor. Outside reading and a final project are required.
Course Type (CB27) :	Lower Division
Mode of Delivery:	In person ONLY
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Chemistry
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - CHEMISTRY

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This is a stand-alone, CSU transferable course. This course satisfies increasing student demand for even more opportunities to develop skills beyond the classroom, such as designing original research projects, analyzing chemical science literature, or studying current topics in a selected area of chemistry.

Stand-Alone Statement

Stand-Alone Statement

This course does not fit into any certificate/degree program or GE pathway because the specific focus, assignments, projects, references, and assessments will vary depending on student interest and instructor availability. Therefore, the exact content and work completed cannot be classified before students enroll in the course. The purpose of this course is to offer opportunities for students to develop skills beyond the classroom, such as designing original research projects, analyzing chemical science literature, or studying current topics in a selected area of chemistry they are interested in. The audience for this course is primarily for students who have completed at least one quarter of chemistry but may otherwise be permitted in special circumstances.

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

CHEM 72R

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☐ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Since aspects of the class such as meeting hours and assignments types are chosen by the student and instructor at the beginning of the quarter, students who work or have full/tight schedules can still enroll. Because enrollment is not based on an ultra-competitive application process, this class supports advancing out-of-classroom skills for all de Anza students where traditional internships would be out of reach. Furthermore, the 1-on-1 nature of this class provides more intimate and collaborative student-instructor interactions, thus facilitating progress and growth for hesitant or non-traditional students.

Course Development Options

Basic Skill Status (CB08)

Course Special Class Status (CB13)

Grade Options

Course is not a basic skills course.	Course is not a special class.	• Pass/No Pass
Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs

☐ Course is part of a program

Associated Program	Award Type	Active
No value	No value	

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)	Transferability Status
Transferable to CSU only	Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

No

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	3
Maximum Credit Units	3
Total Course In-Class (Contact) Hours	108
Total Course Out-of-Class Hours	0
Total Student Learning Hours	108

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	9	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	108
NA	0
Total	108
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
NA	0
Total	0

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Discussion and problem-solving performed in class In-class essays In-class exploration of internet sites

Assignments

A. To be determined in consultation with the instructor and may come in the form of an exam, a report, or a presentation. See Sections 3 and 4 of the Special Projects Contract.

Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Final project (exam, report, presentation,...) will be evaluated based on completeness, accuracy, and adherence to requirements and objectives specified in Sections 3, 4, and 5 of the Special Projects Contract

Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Final project (exam, report, presentation,...) will be evaluated based on completeness, accuracy, and adherence to requirements and objectives specified in Sections 3, 4, and 5 of the Special Projects Contract

Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Final project (exam, report, presentation,...) will be evaluated based on completeness, accuracy, and adherence to requirements and objectives specified in Sections 3, 4, and 5 of the Special Projects Contract

Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Final project (exam, report, presentation,...) will be evaluated based on completeness, accuracy, and adherence to requirements and objectives specified in Sections 3, 4, and 5 of the Special Projects Contract

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Essential College Facilities:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Essential College Facilities:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

- Essential Student Materials/Essential College Facilities**
- Essential Student Materials:**
- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract
- Essential College Facilities:**
- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Essential College Facilities:

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

- Essential Student Materials/Essential College Facilities**
- Essential Student Materials:**
- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract
- Essential College Facilities:**
- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
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Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				

Suggested Reading List

No Value

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Complete project objectives/requirements as determined in sections 3, 4, and 5 of the Special Projects Contract.

CSLOs

Apply the fundamental concepts, methods and procedures of the chemistry topic as determined in sections 3 & 4 of the Special Projects Contract.

Expected SLO Performance: 0

Outline

Course Outline

- A. Complete project objectives/requirements as determined in sections 3, 4, and 5 of the Special Projects Contract.
1. Formulate a proposal statement for a feasible project.
 2. Demonstrate skills in the analysis of current chemical literature related to the chosen research topic.
 3. Assist in duties as an instructional assistant in Chemistry classes.
 4. Design an original project based on chemical topics taught at De Anza College.
 5. Demonstrate a critical understanding of current problems in a selected area of chemistry.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

No Value

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Consent of instructor and division dean and an approved Special Projects Contract is required.)

Limitation(s) on Enrollment - Other:

(Not open to students with credit in CHEM D077. or CHEM D077X.)

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value
Objective 2: Compose essays drawn from personal experience and assigned texts.
No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.
No Value
Objective 4: Create syntactically varied sentences that are free of mechanical errors.
No Value
Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.
No Value

B-Matrix Form
ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.
No Value
Objective 2: Develop analytical ideas and topics for essays.
No Value
Objective 3: Compose and support thesis statements for analytical essays.
No Value
Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.
No Value
Objective 5: Identify and practice writing for different audiences and purposes.
No Value
Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.
No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.
No Value
Objective 4: Solve problems involving operations with signed numbers.
No Value
Objective 5: Explore the characteristics and properties of real numbers.
No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.
No Value
Objective 7: Explore rates and ratios and use proportions to solve problems.
No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.
No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.
No Value
Objective 10: Solve linear equations in one variable numerically and algebraically.
No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.
No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

This special projects course requires consent of the instructor and division dean, in addition to a completed special projects contract.

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value
Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/16/2026	Basic Course Information	Course Description	Suggested	Consider revising to emphasize welcoming, student-centered language and minimizes the use of impersonal, course-centered language.	Y
03/16/2026	Specifications	Methods of Evaluation	Suggested	I believe this assignment is indicating that there are choices is the final project format -- if yes, consider minor revisions to clarify. If not appropriate, please let me know in the initiator response box.	I added info to the assignments section to make it more clear the choice of assignment, so the MoE description has more context
Stage 4: Articulation Officer					
No Value					

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/9/26	Matrix H	Objective 2	Required	Complete for your Limitation on Enrollment	Y

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/26/2026	Learning Outcomes	CSLO #1	Required	State as a learning outcome by starting the statement with a Bloom's Taxonomy verb. Some suggestions: • Explain the fundamental concepts of the Chemistry topic. • Apply the fundamental concepts of the Chemistry topic. • Apply the fundamental concepts, methods and procedures of the chemistry topic as determined in sections 3 & 4 of the Special Projects Contract.	Y

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CHEM 077Y

Course Status

Non-substantial

Course Characteristics

No Value

Cross-Listed/Related Course Information

- Related Child

Cross-Listed/Related Course ID's

CHEM 77

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

No Value

Course Outline of Record Report

06/02/2026

CHEMD077. : Special Projects in Chemistry

General Information

Faculty Initiator:	Chris Deming
Attachments:	ReqAdv_G_CHEM_77_2027F.pdf
Course ID (CB01A and CB01B) :	CHEMD077.
Short Course Title:	SPEC PROJ IN CHEMISTRY
Course Title (CB02) :	Special Projects in Chemistry
Department:	CHEM - Chemistry
Effective Term:	Fall 2027
TOP Code (CB03) :	(1905.00) Chemistry, General
CIP Code:	(40.0501) Chemistry, General
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	No
Course Control Number:	CCC000202424
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course involves individual research in the chemical sciences, with specific projects determined in consultation with the instructor. Outside reading and a final project are required.
Course Type (CB27) :	Lower Division
Mode of Delivery:	In person ONLY
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Chemistry
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - CHEMISTRY

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This is a stand-alone, CSU transferable course. This course satisfies increasing student demand for opportunities to develop skills beyond the classroom, such as designing original research projects, analyzing chemical science literature, or studying current topics in a selected area of chemistry.

Stand-Alone Statement

Stand-Alone Statement

This course does not fit into any certificate/degree program or GE pathway because the specific focus, assignments, projects, references, and assessments will vary depending on student interest and instructor availability. Therefore, the exact content and work completed cannot be classified before students enroll in the course. The purpose of this course is to offer opportunities for students to develop skills beyond the classroom, such as designing original research projects, analyzing chemical science literature, or studying current topics in a selected area of chemistry they are interested in. The audience for this course is primarily for students who have completed at least one quarter of chemistry but otherwise may be permitted in special circumstances.

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

Yes

Foothill Course ID

CHEM 70R

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☐ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Since aspects of the class such as meeting hours and assignment types are chosen by the student and instructor at the beginning of the quarter, students who work or have full/tight schedules can still enroll. Because enrollment is not based on an ultra-competitive application process, this class supports advancing out-of-classroom skills for all de Anza students where traditional internships would be out of reach. Furthermore, the 1-on-1 nature of this class provides more intimate and collaborative student-instructor interactions, thus facilitating progress and growth for hesitant or non-traditional students.

Course Development Options

Basic Skill Status (CB08)

Course Special Class Status (CB13)

Grade Options

Course is not a basic skills course.	Course is not a special class.	• Pass/No Pass
Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☐ Course is part of a program		
Associated Program	Award Type	Active
No value	No value	

Transferability & Gen. Ed. Options		
Course General Education Status (CB25)		
Y		
Transferability (CB05)	Transferability Status	
Transferable to CSU only	Approved	

UC Transferable and/or Lower-Division Major Requirement		
Will the course be UC transferable?		
No		
If yes, identify the lower-division UC course and campus.		
No Value		
Will the course fulfill a UC/CSU lower-division major requirement?		
No		
If yes, identify the UC/CSU campus, course and major.		
No Value		

Units and Hours		
Summary		

Minimum Credit Units	1
Maximum Credit Units	1
Total Course In-Class (Contact) Hours	36
Total Course Out-of-Class Hours	0
Total Student Learning Hours	36

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	3	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	36
NA	0
Total	36
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
NA	0
Total	0

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications				
Methods of Instruction				
Methods of Instruction		Methods of Instruction		
Methods of Instruction		Discussion and problem-solving performed in class In-class essays In-class exploration of internet sites		
Assignments				
A. To be determined in consultation with the instructor and may take the form of an exam, report, and/or presentation. See Sections 3 and 4 of the Special Projects Contract.				
Methods of Evaluation		Methods of Evaluation		
Methods of Evaluation		A. Final project (exam, report, presentation,...) will be evaluated based on completeness, accuracy, and adherence to requirements and objectives specified in Sections 3, 4, and 5 of the Special Projects Contract.		
Essential Student Materials/Essential College Facilities				
Essential Student Materials:				
• Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract				
Essential College Facilities:				
• Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract				
Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
To be determined in consultation with the instructor. See Sections 3 and 4 of Special Project Contract.				
Suggested Reading List				
No Value				
Learning Outcomes				
Course Objectives				

Complete project objectives/requirements as determined in sections 3, 4, and 5 of the Special Projects Contract.

CSLOs

Apply the fundamental concepts, methods and procedures of the chemistry topic as determined in sections 3 & 4 of the Special Projects Contract.

Expected SLO Performance: 0

Outline

Course Outline

- A. Complete project objectives/requirements as determined in sections 3, 4, and 5 of the Special Projects Contract.
1. Formulate a proposal statement for a feasible project.
 2. Demonstrate skills in the analysis of current chemical literature related to the chosen research topic
 3. Design an original project based on chemical topics taught at De Anza College.
 4. Demonstrate a critical understanding of current problems in a selected area of chemistry.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

No Value

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

- (Consent of instructor and division dean and an approved Special Projects Contract is required.)

Limitation(s) on Enrollment - Other:

(Not open to students with credit in CHEM D077X or CHEM D077Y.)

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
No Value
Objective 2: Investigate the use of mathematics in real world.
No Value
Objective 3: Explore functions.
No Value
Objective 4: Develop linear function models.
No Value
Objective 5: Use systems of two linear equations to solve real world problems.
No Value
Objective 6: Use linear inequalities in one variable to solve real world problems.
No Value
Objective 7: Examine exponential expressions and develop exponential function models.
No Value
Objective 8: Examine logarithmic expressions and develop logarithmic function models.
No Value
Objective 9: Develop quadratic function models to solve problems.
No Value
Objective 10: Investigate the characteristics of rational expressions.
No Value
Objective 11: Develop skills to work with radical expressions.
No Value

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

This special projects course requires consent of the instructor and division dean, in addition to a completed special projects contract.

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value
Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/16/2026	Basic Course Information	Course Description	Suggested	Consider revising to emphasize welcoming, student-centered language and minimizes the use of impersonal, course-centered language.	Y
03/16/2026	Specifications	Methods of Evaluation	Suggested	I believe this assignment is indicating that there are choices is the final project format -- if yes, consider minor revisions to clarify. If not appropriate, please let me know in the initiator response box.	I added some info to the assignments to clear this up, so while I didnt change MoE, the choice is now clear.
Stage 4: Articulation Officer					
No Value					

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/9/26	Matrix H	Objective 2	Required	Complete for your Limitation on Enrollment	Y

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/26/2026	Learning Outcomes	CSLO #1	Required	State as a learning outcome by starting the statement with a Bloom's Taxonomy verb. Some suggestions: • Explain the fundamental concepts of the Chemistry topic. • Apply the fundamental concepts of the Chemistry topic. • Apply the fundamental concepts, methods and procedures of the chemistry topic as determined in sections 3 & 4 of the Special Projects Contract.	Y

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CHEM 077

Course Status

Non-substantial

Course Characteristics

No Value

Cross-Listed/Related Course Information

- Related Parent

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

No Value

Curriculum Office Notes

No Value

CISD003. : Business Information Systems**General Information**

Faculty Initiator:	- Jennifer Parrish - Pape, Mary
Attachments:	Hybrid_CIS_3_2027F.pdf Online_CIS_3_2027F.pdf
Course ID (CB01A and CB01B) :	CISD003.
Short Course Title:	BUSINESS INFO SYSTEMS
Course Title (CB02) :	Business Information Systems
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0701.00) Information Technology, General
CIP Code:	(11.0101) Computer and Information Sciences, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000366265
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This is an introductory course to business information systems, systems design and development life cycle, data communications, data management, office automation, computer hardware and software concepts. The use of common software packages for business applications including word processing, spreadsheets, database, and internet web tools will be covered.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - CIS

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This CTE course is CSU and UC transferable. It is also part of the following degrees/ certificates: CIS-Business Programming (AA Degree). Business students work in environments where technology drives many aspects of the organization. This course prepares the students to be able to use the most common office software and to be able to make decisions about technology to be used in their work environment.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|--|---|
| ☐ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☐ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☐ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

When selecting case studies, designing problems, and gathering data sets, careful attention is given to respecting cultural and ethnic diversity, sexual orientation, and socio-economic differences among students. The recognition of contributors to technology and computer science is inclusive of diverse cultures, ethnicities, and sexual orientations.

Course Development Options

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
- Pass/No Pass

Repeat Limit

Course Prior To College Level

Repeatability Statement

0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Business Administration	Certificate of Achievement (COA)	Fall 2024 to Fall 2026
Business Administration	Certificate of Achievement (COA)	Fall 2026
Business Administration	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Administration	Associate in Arts (A.A.) Degree	Fall 2026
Business Information Worker	Certificate of Achievement (COA)	Fall 2022 to Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Business Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Programming	Associate in Arts (A.A.) Degree	Fall 2026
Energy Management and Building Science	Associate in Science (A.S.) Degree	Fall 2025
Facility and Sustainable Building Management	Associate in Science (A.S.) Degree	Fall 2025

Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Management Information Systems Support	Certificate of Achievement (COA)	Fall 2025
Visual Basic Programming	Certificate of Achievement (COA)	Fall 2025 to Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

C-ID	Area(s)	Status	Approval Date	End Date	-
BUS	Business	Approved	No value	No value	C-ID BUS 140

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4.5
Maximum Credit Units	4.5
Total Course In-Class (Contact) Hours	66
Total Course Out-of-Class Hours	96
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	18
NA	0
Total	66
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and Visuals Discussion of Assigned Reading Discussion and Problem Solving Performed in Class In-Class Exploration of Case Studies Examination Review Collaborative Projects Collaborative Learning and Small Group Exercises Collaborative Lab Assignments
Assignments	
A. Required reading from text 1. Complete homework questions from each chapter assigned 2. Do study and review activities on the book webpage B. Application software 1. Create, edit, and store a document using word processing software. (Student Learning Outcome 2) 2. Design, develop, and document a relational data base for a business application requiring a least 3 tables and 2 reports. (Student Learning Outcome 5) 3. Use a spreadsheet to model a common business problem with at least five variables. Modify variables to simulate varying business conditions. (Student Learning Outcome 3) 4. Collect information on the Internet resulting in a presentation about a business technology implementation utilizing presentation software: graphics, tables, process flow diagrams and text. (Student Learning Outcome 4) C. Tutorials instructing students on how to do perform activities related to the project, like process flow, cost/benefit analysis, will be conducted during class time, having the students complete in-class group assignments for each tutorial. D. Term project of several pages, created with application software, and dealing with a significant business improvement based on technology. Students will be graded based on selecting a problem that can be solved with a technology we learned about in class and using the Systems Development Life Cycle in its entirety. (Student Learning Outcome 1) Students may be required to submit more than one draft with revisions based on instructor feedback.	
Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Participation in class discussion of business case studies to progressively demonstrate ability to critically evaluate the system development life cycle and recommend appropriate course of technical implementation. B. Participation in class of lab assignments in various software applications to progressively demonstrate ability to critically evaluate scenarios addressed in the system development life cycle. (Student Learning Outcomes 2,3,4,5)

- C. Participation in tutorial assignments to progressively demonstrate ability to critically evaluate the stages of the system development life cycle used in the project.
- D. Written project demonstrates critical thinking regarding the technical implementation analyzed, as well as comprehension and application of the system development life cycle. Examples of successful projects will be provided as models (Student Learning Outcome 1)
- E. Midterm examination, which appraises comprehension and requires synthesis and application of course material covered to that point in time.
- F. Final examination, which appraises comprehension and requires synthesis and application of course material covered for the whole term.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Access to a computer lab with suitable software (operating system, word processor, database, spreadsheet and Internet connection)

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Paige Baltzan	Business Driven Information Systems	McGraw-Hill Educators	2025/9th	
David Bourgeois	Information Systems for Business and Beyond	Creative Commons Attribution-NonCommercial 4.0 International License	2019	

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Appraise the role that information systems play in business operation, management, and strategy.

Construct a systems development life cycle, for building business information systems.

Research systems and application software and types of systems software and operating systems.

Recommend database technology to a business problem.

Categorize common components of computer hardware and common information systems terminology.

Enumerate telecommunications hardware, media, software, and configurations.

Generalize important business use of the Internet.

Recommend effective acquisition and use of hardware, software, and information systems services.

Examine key business and public policy issues related to information technologies.

Concoct an integrated document, including graphics and a decision support system using a spreadsheet and database, including graphics to highlight data in a visual manner.

CSLOs

Create and execute a plan to improve success factors in a business, using software and hardware.

Expected SLO Performance: 0.0

<i>BUS - Business</i> COA_Management Information Systems Support	Communicate effectively with business professionals, understand fundamental programming concepts, and track computer systems problems related to a variety of technical areas, such as software applications, database management systems, web sites and comput
--	---

Produce a business document utilizing word processing tools to show use of various formatting, such as columns, outline, and numbering.

Expected SLO Performance: 0.0

<i>BUS - Business</i> COA_Management Information Systems Support	Communicate effectively with business professionals, understand fundamental programming concepts, and track computer systems problems related to a variety of technical areas, such as software applications, database management systems, web sites and comput
--	---

Design a model for business decision making utilizing spreadsheet software and incorporating charts, formulas, and formatting.

Expected SLO Performance: 0.0

<i>BUS - Business</i> COA_Management Information Systems Support	Communicate effectively with business professionals, understand fundamental programming concepts, and track computer systems problems related to a variety of technical areas, such as software applications, database management systems, web sites and comput
--	---

Create a presentation about a business technology implementation utilizing presentation software incorporating graphics, tables, process flow diagrams and text.

Expected SLO Performance: 0.0

<i>BUS - Business</i> COA_Management Information Systems Support	Communicate effectively with business professionals, understand fundamental programming concepts, and track computer systems problems related to a variety of technical areas, such as software applications, database management systems, web sites and comput
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<i>BUS - Business</i>	Communicate effectively with business professionals, understand fundamental programming concepts, and track computer
COA_Management Information	systems problems related to a variety of technical areas, such as software applications, database management systems, web
Systems Support	sites and comput

Outline

Course Outline

- A. Appraise the role that information systems play in business operation, management, and strategy.
 - 1. First level of IT: Strategic applications in information systems for competitive advantage
 - 2. Second level of IT: Management applications
 - 3. Third level of IT: Operations and transaction processing
- B. Construct a systems development life cycle, for building business information systems.
 - 1. Problem/opportunity identification
 - 2. Alternate solutions
 - 3. Cost/benefit analysis
 - 4. Design and Development
 - 5. Implementation
 - 6. Maintenance
 - 7. Retirement
- C. Research systems and application software and types of systems software and operating systems.
 - 1. Software selection: packages, programming languages, and end user tools
 - 2. Managing decision making
 - 3. Manufacturing: robotics, computer aided design and computer aided manufacturing
 - 4. Home office automation and telecommuting
 - 5. Artificial intelligence
 - 6. Education/training technologies and applications
- D. Recommend database technology to a business problem.
 - 1. File Management vs. DBMS
 - 2. Database structures
 - 3. Data modeling
 - 4. Database administration
 - 5. Trends: Data Mining
- E. Categorize common components of computer hardware and common information systems terminology.
 - 1. System software: operating systems and utilities
 - 2. Programming languages: compilers, interpreters
 - 3. System devices: processing, input, output, storage, telecommunications
- F. Enumerate telecommunications hardware, media, software, and configurations.
 - 1. Telecommunication media: wire and wireless
 - 2. Home networking
 - 3. Local area networks
 - 4. Wide area networks
- G. Generalize important business use of the Internet.
 - 1. Internet/web technology: servers, software, protocols, and web pages
 - 2. Internet/web applications: e commerce, intranets
- H. Recommend effective acquisition and use of hardware, software, and information systems services.
 - 1. Hardware
 - 2. Software
 - 3. Information Services
- I. Examine key business and public policy issues related to information technologies.
 - 1. Public issues: privacy, digital divide, free speech and press, crime
 - 2. Organizational issues: IS planning, IS security. control, and crime, health issues (repetitive stress injuries), ethics, systemic inequities and barriers to inclusion
 - 3. Information systems organization and careers
- J. Concoct an integrated document, including graphics and a decision support system using a spreadsheet and database, including graphics to highlight data in a visual manner.
 - 1. Use an operating system, such as Windows
 - 2. Use a word processor product, such as Word

3. Use a spreadsheet product, such as Excel
4. Use a database product, such as Access
5. Use an Internet browser, such as Navigator or Internet Explorer
6. Integrated use of these products

Lab Outline

- A. Excel: A spreadsheet for a company budget and a Mortgage spreadsheet will be created in lab. Both will be converted to various data formats for better transmission (Student Learning Outcome 3)
- B. Access: A small customer database will be created in lab. The students will use the database to do various transactions such as queries, reports, sorting, and editing. Data conversion and importing of the database to other application will be learned (Student Learning Outcome 5)
- C. Word: Students will create multiple small projects to practice formatting, importing data, and creating various types of business communication (Student Learning Outcome 2)
- D. Internet: Searches for business information, articles, in addition to learning to navigate and locate various types of locations, like .gov, .edu, and other types of sites
- E. Power Point: Two presentations will be created, one for teaching a small subject to the class, and one for presenting the final project, using various formatting and practicing good presentation creating techniques (Student Learning Outcome 4)

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv**Prerequisite(s):**

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Methods of Evaluation B: Business scenarios and case studies will be analyzed to find weaknesses or opportunities and propose solutions.

Objective 2: Develop analytical ideas and topics for essays.

Assignment D: When drafting proposals based on evaluation of a technological solution, students will base their logical arguments on research and analysis collected for the duration of a project.

Objective 3: Compose and support thesis statements for analytical essays.

Assignment D: Students need to understand, communicate and provide supporting logical arguments for their choices of technological solutions to improve a business.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

Outline H: Information collected about business problems needs to be summarized, analyzed and conveyed in writing to the members of the project team.

Objective 5: Identify and practice writing for different audiences and purposes.

Assignment D: Business scenarios will be analyzed to find weaknesses or opportunities. Students will provide written summary and analysis for audiences including team mates and business owners.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value
Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision. Method of Evaluation D: Students will revise written proposals based on instructor feedback.
Objective 8: Practice composing organized, developed, analytical essays that increase in complexity. No Value
Objective 9: Demonstrate appropriate grammar usage and mechanics. No Value

C-Matrix Form
ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres. No Value
Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts. No Value
Objective 3: Produce written work using a cyclical process of multiples drafts and revisions. No Value
Objective 4: Demonstrate the ability to include a variety of sentence structures in writing. No Value
Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English. No Value

D-Matrix Form
Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals. No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions. No Value
Objective 4: Solve problems involving operations with signed numbers. No Value
Objective 5: Explore the characteristics and properties of real numbers. No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers. No Value
Objective 7: Explore rates and ratios and use proportions to solve problems. No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas. No Value
Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions. No Value
Objective 10: Solve linear equations in one variable numerically and algebraically. No Value
Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs. No Value
Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world. No Value

G-Matrix Form
If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value
Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value
Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)
No Value

Comments					
Stage 2: Department Chair					
No Value					
Stage 3: DEI					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/17/2026	Specifications	Assignments	Suggested	For any of these assignments, do students have the opportunity to revise their workbased on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, please let me know in the initiator response box.	Y updated (sorry for forgetting to note)
03/17/2026	Specifications	Methods of Evaluation	Suggested	For any of these evaluation methods, does the instructor provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, please let me know in the initiator response box.	Y updated
03/17/2026	Outline	Course Outline	Suggested	Consider minor revisions to to reflect on inequities, racism, or other barriers to inclusion specific to the course subject (this is mentioned a bit in the DEI statement through the case studies). If not appropriate, please let me know in the initiator response box.	Y updated
Stage 4: Articulation Officer					
No Value					
Stage 5: De Anza General Education					

No Value
Stage 6: Content Review Matrix Liaison
No Value
Stage 7: Dean of Online Learning
No Value
Stage 8: SLO Coordinator
No Value
Stage 10: Curriculum Committee
No Value

CO
Sort ID (00 < 10; 0 < 100)
CIS 003
Course Status
Non-substantial
Course Characteristics
CTE
Cross-Listed/Related Course Information
NA
Cross-Listed/Related Course ID's
No Value
DL Approval Date (MM/DD/YYYY)
02/26/2019
Hybrid Approval Date (MM/DD/YYYY)
02/26/2019
Curriculum Office Notes
Requisite change appr. 1/17/23 (effect. F23).-cc

- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

CISD014A : Visual Basic .NET Programming I

General Information

Faculty Initiator:	Mary Pape
Attachments:	Online_CIS_14A_2027F.pdf Hybrid_CIS_14A_2027F.pdf
Course ID (CB01A and CB01B) :	CISD014A
Short Course Title:	VISUAL BASIC.NET PROGR I
Course Title (CB02) :	Visual Basic .NET Programming I
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000368258
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course introduces programming with Visual Basic, focusing on building Windows applications within the Visual Basic development environment. Students will learn to design well-structured VB projects and create interactive user interfaces using components such as forms, buttons, labels, picture boxes, and text boxes. This course is designed for students who may feel hesitant about learning programming, helping them build confidence as they develop their skills in Visual Basic.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Science
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - COMPUTER SCIENCE

Formerly Statement

Formerly Statement

No Value

Course Justification**Course Justification**

This course is UC and CSU transferable. It is part of the A.A. Degree in Business Programming. Students learn to write applications in Visual Basic, a rapid development programming language.

Stand-Alone Statement**Stand-Alone Statement**

No Value

Course Philosophy**Course Philosophy**

No Value

CTE Course**Is this a CTE (Career Technical Education) course?**

Yes

Honors/Non-honors Course**Is this an honors/non-honors course?**

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course description shows students of all backgrounds, beginner to experienced, can learn useful skills in this course. The Examples of Primary Texts and References include OER material so it's affordable to students and meet universal design course standards. There are multiple Methods of Instruction to accommodate different style learners, and since this is a CTE course, the course materials discuss current and relevant work-related technical topics for students.

Course Development Options

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 - Pass/No Pass
Repeat Limit 0	Course Prior To College Level Not applicable.	Repeatability Statement No value
Course Support Status (CB26) Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Business Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Programming	Associate in Arts (A.A.) Degree	Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Visual Basic Programming	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Web Development	Certificate of Achievement (COA)	Fall 2025

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4.5
Maximum Credit Units	4.5
Total Course In-Class (Contact) Hours	66
Total Course Out-of-Class Hours	96
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36

Laboratory Hours	1.5	0	Course In-Class (Contact) Hours	
NA Hours	0	0	Lecture	48
			Laboratory	18
			NA	0
			Total	66
			Course Out-of-Class Hours	
			Lecture	96
			Laboratory	0
			NA	0
			Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture including discussion of assigned reading Demonstration of developing solutions to programming problems Review as test preparation Discussion of solutions to assigned homework, lab assignment projects, and test problems On-line tutorial Collaborative projects using Pair Programming with Structured Roles (driver - writes the code; navigator - debugs, reviews logic and suggests improvements)
Assignments	A. Reading from text, reference materials and manual pages B. Programs: 8-12 programming homework assignments pertaining to the topics listed in X as Lab Topics, including several of more than 50 lines and several which use 3 or more functions. Topics for labs to include household banking or keeping a roster through design of airline booking system.
Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Lab assignments demonstrating synthesis of course topics and ability to apply skills listed in objectives and outcomes. Assignments will be evaluated for correctness, implementation of required constructs, and style. (CSLO 1 & 2) Students will be encouraged to revise and resubmit. Topics for labs will be

pertinent to their lives such household banking or keeping a roster through career applicable topics such as design of airline booking system.

- B. Homework Assignments demonstrating knowledge of course topics. Evaluated on correctness. (CSLO 3)
- C. Exams and quizzes demonstrating synthesis of course topics and ability to apply skills to solving a problem.(CSLO 1-3)
- D. Comprehensive final exam demonstrating synthesis of course topics and ability to apply skills listed in objectives and outcomes. (CSLO 1-3)

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Computer laboratory with Visual Basic .NET Integrated Development Environment

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Schneider, David I.	An Introduction to Programming Using Visual Basic	Pearson	Eleventh Edition, 2019	ISBN-13: 978-978-0135416037 ISBN-10: 0135416035
Dr.Liew Voon Kiong	Visual Basic 2022 Made Easy: A Beginner's Guide to Windows Application Development Using Visual Studio	Liew Voon Kiong	2025/8th	979-8286182008
Girija Narasimhan	Introduction to Visual Basic .NET	Creative Commons Attribution Non-Commercial Share Alike	04/28/2017	https://oercommons.org/authoring/21668-introduction-to-visual-basic-net/view

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Discuss career applications of Visual Basic .NET

Create programs and build projects in Visual Basic .NET.

Design top-down structured applications using the Visual Basic .NET environment with consideration of maintainability and supporting inclusive and equitable technology use.

Design user interface

Write programming code using the Visual Basic syntax.

Employ sequential disk files for input and output of information.

Implement basic Controls

Implement control buttons within project

CSLOs

Design a graphical user interface in Visual Basic .NET implementing basic controls including text boxes, labels, list boxes, buttons, radio buttons, and checkboxes. Expected SLO Performance: 0.0

Design the algorithm, write, document, debug and test the code for event procedures and sub procedures of a Visual Basic application incorporating elementary coding constructs. Expected SLO Performance: 0.0

Read, analyze and explain introductory level Visual Basic code. Expected SLO Performance: 0.0

Outline

Course Outline

- A. Discuss career applications of Visual Basic .NET
- B. Create programs and build projects in Visual Basic .NET.
 - 1. Launch Visual Studio in the Windows operating system.
 - 2. Open and save a Visual Basic .NET application
 - 3. Navigate Visual Basic .NET Form Designer
 - a. Use menu bar to open, add to, save, debug, and print forms, code, and project.
 - b. Use Standard toolbar to debug, save, open and close forms and projects.
 - c. Navigate between Code Editor window and Form Designer window
 - d. Add control from Toolbox pane to form
 - e. Switch files using the Solution Explorer window
 - f. Change properties of controls through Properties window.

- C. Design top-down structured applications using the Visual Basic .NET environment with consideration of maintainability and supporting inclusive and equitable technology use.
1. Create Object-Event Diagram to implement top-down design.
 2. Formulate the algorithm implementing the modularity concept.
 3. Interpret documentation describing algorithm.
- D. Design user interface
1. Create a form
 2. Add controls to a form
 3. Change the appearance of a form
 4. Print the contents of a form to a printer
 5. Manipulate multiple forms in a single project
- E. Write programming code using the Visual Basic syntax.
1. Declare and define the appropriate type of variable.
 - a. Declare and define numeric variables (integers, floating point numbers, currency)
 - b. Declare and define string variables
 - c. Choose the appropriate scope for each variable
 2. Code expressions and assignment statements
 - a. Implement mathematical operators and functions in expressions and statements
 - b. Implement string functions in expressions and statements
 3. Write code for procedures
 - a. Write code for event procedures
 - b. Implement sub procedures to achieve modularity
 - c. Write code for and implement user defined functions
 - d. Write code to pass values to procedures
 4. Code decision making into algorithm
 - a. Design and code if blocks
 - b. Design and code Select Case blocks
 5. Implement repetition of code through loops: For..Next loops, Do While..Loop loops, and Do..Loop Until loops
 6. Declare and define arrays
 - a. Assign values to elements of numerical and string arrays
 - b. Create adjustable arrays
 - c. Use two-dimensional arrays
- F. Employ sequential disk files for input and output of information.
1. Write code to open and close files
 2. Write code to input values from file
 3. Illustrate how to output values to files
- G. Implement basic Controls
1. Create text boxes and list boxes
 2. Write code to display strings in text boxes and list boxes
 3. Retrieving input from text boxes and input boxes
 4. Write code to use message boxes and labels for display of information
 5. Use picture box to hold a picture
- H. Implement control buttons within project
1. Create buttons
 2. Write code to use a command button to initiate an action
 3. Write code to use an option button to select an option

Lab Outline

- A. Enter and debug VB application in Visual Studio .NET IDE.
- B. Given the design for the user interface and algorithm, write and/or debug the code and execute a project using input from text boxes and input boxes and output to list boxes, text boxes, labels, and/or message boxes.
- C. Given the design for the user interface and algorithm, write and/or debug the code and execute a project employing decision making concepts.
- D. Given the design for the user interface and algorithm, write and/or debug the code and execute a project employing repetition concepts.
- E. Given the design for the user interface and algorithm, write and/or debug the code and execute a project implementing arrays.
- F. Given the design for the user interface and algorithm, write and/or debug the code and execute a project employing sequential text files for input.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Assignment A: Reading from text, reference materials and manual pages Outline B.3: Interpret documentation describing algorithm.

Objective 2: Develop analytical ideas and topics for essays.

Objective B: Design top-down structured applications using the Visual Basic .NET environment.

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

Objective B: Design top-down structured applications using the Visual Basic .NET environment.

Objective 5: Identify and practice writing for different audiences and purposes.

Method of Evaluation: Assignments will be evaluated for correctness, implementation of required constructs, and style...

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Outline A: Create programs and build projects in Visual Basic .NET. Outline C. Design user interface

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value
Objective 7: Develop quadratic function models to solve problems. No Value
Objective 8: Use inequalities to solve real world problems. No Value
Objective 9: Explore arithmetic sequences and series. No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world. No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods. No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals. No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions. No Value
Objective 4: Solve problems involving operations with signed numbers. No Value
Objective 5: Explore the characteristics and properties of real numbers. No Value
Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers. No Value
Objective 7: Explore rates and ratios and use proportions to solve problems. No Value
Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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03/23/2026 Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.)? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y Schneider focus on the skills and presents each with step by step how to illustrations and a narrative that is in simple language. Very helpful appendix.
03/23/2026 Specifications	Assignments	Suggested	Do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (2) Encourage students to connect course content to their own life, background, and experiences; (3) One or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, let me know in the Initiator response box.	Y I added language concerning lab topics.
03/23/2026 Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.	Done
03/23/2026 Outline	Course Outline	Suggested	Consider minor revisions to provide space to reflect on diverse perspectives and/or experiences, inequities, racism, or other barriers to inclusion specific to the course subject if appropriate. If not appropriate, let me know in the initiator response box.	Added objective "Discuss career applications of Visual Basic .NET" which will provide that space since VB occupies a small but entry level niche to programming.

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

No Value

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CIS 014A

Course Status

Non-substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

10/08/2019

Hybrid Approval Date (MM/DD/YYYY)

10/08/2019

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

CISD018A : Introduction to Unix/Linux

General Information

Faculty Initiator:	• Clare Nguyen • Pape, Mary
Attachments:	ReqAdv_G_CIS_18A_2027F.pdf Online_CIS_18A_2027F.pdf Hybrid_CIS_18A_2027F.pdf
Course ID (CB01A and CB01B) :	CISD018A
Short Course Title:	INTRO TO UNIX/LINUX
Course Title (CB02) :	Introduction to Unix/Linux
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000524531
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course introduces essential features of Unix/Linux operating systems, including text editing, file manipulation, email, Internet utilities, directory structures, input/output handling, and shell features. Students will gain hands-on experience on the command line, applying skills directly as they learn, ensuring a solid understanding of both theory and real-world application. Since there is no prior programming experience needed, the course is designed for students from all backgrounds, from students who are just starting their tech journey to experienced workers looking to expand their existing knowledge. The skills learned in this course are fundamental for careers in software development, systems administration, data science, AI application, cybersecurity, and cloud computing, where Unix/Linux proficiency is often required for daily work.
Course Type (CB27) :	• Lower Division
Mode of Delivery:	• Online • Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	• Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Discipline 2:	No value
Discipline 3:	No value

FSA:

- FHDA FSA - CIS

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is UC/CSU transferable and is a CTE course. It is the first course in a two-course series in the Unix/Linux Operating Systems Certificate of Achievement. The course teaches foundational Unix/Linux skills that are needed for many careers in software and AI, and it serves as the prerequisite for more advanced bash scripting skills in the second course of the certificate.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☐ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course description shows students of all background, beginner to experienced, can learn useful skills in the course. The Examples of Primary Texts and References include OER material so it's affordable to students and meet universal design course standards. There are multiple Methods of Instruction to accommodate different style learners, and since this is a CTE course, the course materials discuss current and relevant work-related technical topics for students.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Autonomous and Electric Vehicle Technician (Level 1)	Certificate of Achievement-Advanced (COA-A)	Fall 2024
Autonomous and Electric Vehicle Technology (Level 1)	Certificate of Achievement-Advanced (COA-A)	Fall 2024
Cybersecurity	Associate in Arts (A.A.) Degree	Fall 2025
Cybersecurity	Certificate of Achievement (COA)	Fall 2025
Cybersecurity	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Database Development Practitioner	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Database Development Practitioner	Associate in Arts (A.A.) Degree	Fall 2026
Database Development Practitioner	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Database Development Practitioner	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026

Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Network Administration	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Network Administration	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Network Administration	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Network Administration	Associate in Arts (A.A.) Degree	Fall 2026
Network Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Network Programming	Associate in Arts (A.A.) Degree	Fall 2026
Network Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Network Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Systems Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Systems Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Systems Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Systems Programming	Associate in Arts (A.A.) Degree	Fall 2026
UNIX/LINUX Operating System	Certificate of Achievement (COA)	Fall 2022 to Fall 2026
UNIX/LINUX Operating System	Certificate of Achievement (COA)	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units 4.5

Maximum Credit Units 4.5

Total Course In-Class
(Contact) Hours 66

Total Course Out-of-Class
Hours 96

Total Student Learning Hours 162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36

Course In-Class (Contact) Hours

Lecture	48
Laboratory	18
NA	0
Total	66

Course Out-of-Class Hours

Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
Quiz and examination review performed in class
Collaborative learning and small group exercises
Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises
Homework and extended projects

Assignments

- A. Reading in textbook and lecture notes.
- B. 7-10 homework lab assignments to be done on a Unix/Linux system, and the assignments are on using different utilities for text editing, file manipulation, email, Internet utilities, directory structures, input/output handling, and shell features.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Evaluation of lab and homework assignments for completeness and correctness in using the Unix / Linux operating system utilities and the shell.
- B. Exams and quizzes to determine proficiency in working with the components of the Unix/Linux operating system and on appropriate use of utilities and the shell.
- C. Comprehensive final exam to determine proficiency in working with the components of the Unix / Linux operating system and on appropriate use of utilities and the shell.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Computer lab with access to a Unix/Linux server

Examples of Primary Texts and References

Author

Title

Publisher

Date/Edition

ISBN

William Schotts

The Linux Command Line

New Starch Press

February 17, 2026

978-1718504523 or
<https://linuxcommand.org/tlcl.php?ref=itsfoss.com>

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Edit text using the vim text editor

Create file and directory system

Investigate security and file permission

Apply and investigate different shells

Perform basic file maintenance and use information utilities

Apply shell features

Apply quoting rules

Demonstrate user interaction with email and other communication utilities

Apply filters

Apply networking utilities

Apply the extended set of regular expressions

CSLOs

Use the Unix/Linux Operating System utilities and shell features for basic file manipulation, networking, and communication.

Expected SLO Performance: 0.0

CIS - Computer Sci and Info Systems
COAA_Network Administration

Use UNIX/LINUX utilities and shell features for file manipulation and communication

Outline

Course Outline

- A. Edit text using the vim text editor
 - 1. Data input and saving
 - 2. Insert and command mode
 - 3. Editing and file manipulation
 - 4. Local, range, and global commands
 - 5. Handling text objects in search and substitution
 - 6. Adding, cutting, pasting, and deleting text
- B. Create file and directory system
 - 1. File names and wild cards
 - 2. File types
 - 3. Regular files
 - 4. Directories
 - 5. File system
 - 6. Operations applied only to directories
 - 7. Operations applied only to regular files
 - 8. Operations applied to both directories and regular files
- C. Investigate security and file permission
 - 1. Users and groups
 - 2. Security levels
 - 3. /etc/passwd file
 - 4. Permissions for files and directories
 - 5. Changing permission
 - 6. User masks
- D. Apply and investigate different shells
 - 1. Job control
 - 2. Aliases
 - 3. Variables
 - 4. Shell and environment customization
- E. Perform basic file maintenance and use information utilities
 - 1. History
 - 2. Types of Unix / Linux systems available
 - 3. Hardware platforms running Unix / Linux
 - 4. Logging in/out
 - 5. Basic attributes of UNIX / LINUX commands and filenames
 - 6. General purpose commands
 - 7. Script command
- F. Apply shell features
 - 1. Standard file input / output
 - 2. Redirection (input, output, and error)
 - 3. Pipe and Tee
 - 4. Command execution
 - 5. Command line editing and history files
- G. Apply quoting rules
 - 1. Quotes
 - 2. Escape character
 - 3. Command substitution
- H. Demonstrate user interaction with email and other communication utilities
 - 1. write
 - 2. mail
- I. Apply filters
 - 1. Concept
 - 2. cat, head, and tail commands
 - 3. cut and paste commands
 - 4. sort command including multiple-field and multiple-pass sorting
 - 5. tr, unique, and wc commands
- J. Apply networking utilities
 - 1. ssh
 - 2. sftp
- K. Apply the extended set of regular expressions
 - 1. Atoms (single character, dot, class, anchor)
 - 2. Operators (sequence, alternation, repetition, group)

Lab Outline

- A. Use basic utilities to explore system data, user data, and common tasks such as:: passwd, who, whoami, finger, w, uname, man, script, bc, date, echo
- B. Differentiate file types; explore filename conventions and use wildcards; use utilities that manipulate regular files
- C. Use the vim editor to edit text files
- D. Work with the directory tree and path name convention; use utilities that work with directories
- E. Investigate the concept of links and types of links; create links to regular files and directories; explore inodes
- F. Communicate with other users using write; send and receive mail; work across the network using ssh and sftp
- G. Demonstrate the levels and types of permission; set file permission; explore the effects of different types of permissions; changing the permission mask
- H. Using features of the shell such as redirection, tee, pipe, command grouping, command substitution, job control; explore the common types of shell
- I. Use filters to produce and format output
- J. Use the extended set of regular expressions for pattern matching: atoms, anchors, operators

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

No Value

Advisory(ies) - Other:

CIS D004.

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

The advisory is being removed because the ESL/EWRT courses support strategic thinking in essay writing, which doesn't match the skills needed in CIS 18A to write single command lines to work with the Linux OS.

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Discussion of assigned reading

Objective 2: Develop analytical ideas and topics for essays.

Discussion and problem solving performed in class

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/18/2026	Specifications	Examples of Primary Texts and References	Suggested	Thanks for this OER resource. Does this book reflect diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If yes, let me know in the initiator response box.	Y The book discusses the pros and cons of using the command line, which is a different way to work with computers, vs. the GUI that students typically use with their computers. The command line is widely used in the tech field and is relevant and important to CS students.

03/18/2026	Specifications Assignments	Suggested	Do any of these assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency. (2) Encourage students to connect course content to their own life, background, and experiences.; (3) provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If yes, consider revising to note this for the relevant assignment(s). If not appropriate, please let me know in the initiator response box the other way(s) the assignments are providing students diverse ways of demonstrating knowledge.	Y	Due to the technical nature of the course, (1) students can only demonstrate proficiency by showing whether their command lines efficiently complete the require task or not (but they have many attempts to arrive at the correct command line, with feedback from the Linux system directly), and (2) the command lines don't have direct connection to students' general life and background. However, this course builds on accumulated knowledge, so (3) students intrinsically have a chance to revise their work. If they had an error in assignment 2 and saw the instructor feedback and solution, then they can revise their work in the following weeks because the concepts of week 2 are used extensively in weeks 3 and beyond.
03/18/2026	Outline	Course Outline	Suggested	Consider revisions to clarify select technical terms (vim editor, for example), and to highlight the current and relevant work-related technical topics for students (noted in the DEI statement). If not appropriate, let me know in the initiator response box.	Y Changed the course objective to: Edit text with the vim text editor With the new "vim text editor" instead of the previous "vim editor", students who don't know vim will have a general idea that they'll work with a text editor, and students who recognize the name vim will appreciate that they'll learn a tool that's an industry standard. As for "highlight current and relevant work-related technical topics", the topics listed in the course objectives are relevant to CS students: networking, security, email, file, directory.
Stage 4: Articulation Officer					
No Value					
Stage 5: De Anza General Education					
No Value					
Stage 6: Content Review Matrix Liaison					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/9/26	Matrix B		Required	The skill/assignments/activities listed must come from the Assignments, Methods of Evaluation, and/or the Outline. Please indicate where they can be found in eLumen.	Y They are from the Outline These statements are in eLumen, but they are listed under Methods of Instruction, which is not one of the categories that you may cite from. Under the Specifications tab, you can scroll down to Assignments and Methods of Evaluation. You can also use the Outline tab to cite things from the course outline. Feel free to email me if you have any questions. -zj The advisory for Matrix B is removed, with the explanation posted in Matrix B.
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CIS 018A

Course Status

Non-substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

04/30/2019

Hybrid Approval Date (MM/DD/YYYY)

04/30/2019

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -mc

CISD318A : Introduction to Unix/Linux

General Information

Faculty Initiator:	• Clare Nguyen • Pape, Mary
Attachments:	ReqAdv_G_CIS_318A_2027F.pdf Online_CIS_318A_2027F.pdf Hybrid_CIS_318A_2027F.pdf
Course ID (CB01A and CB01B) :	CISD318A
Short Course Title:	INTRO TO UNIX/LINUX
Course Title (CB02) :	Introduction to Unix/Linux
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000624623
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course introduces essential features of Unix/Linux operating systems, including text editing, file manipulation, email, Internet utilities, directory structures, input/output handling, and shell features. Students will gain hands-on experience on the command line, applying skills directly as they learn, ensuring a solid understanding of both theory and real-world application. Since there is no prior programming experience needed, the course is designed for students from all backgrounds, from students who are just starting their tech journey to experienced workers looking to expand their existing knowledge. The skills learned in this course are fundamental for careers in software development, systems administration, data science, AI application, cybersecurity, and cloud computing, where Unix/Linux proficiency is often required for daily work.
Course Type (CB27) :	• Lower Division
Mode of Delivery:	• Online • Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	• Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Discipline 2:	No value
Discipline 3:	No value

FSA:

- FHDA FSA - CIS

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This is a noncredit CTE course. It is a course in the Introduction to Computer Science Certificate of Completion. The course teaches foundational Unix/Linux skills that are needed for many careers in technology such as system administration, software, and AI.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course**Is this a cross-listed course?**

No

Foothill Equivalency**Does the course have a Foothill equivalent?**

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review**Please check all areas in the COR that address DEI.**

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☐ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The course description shows students of all background, beginner to experienced, can learn useful skills in the course. The Examples of Primary Texts and References include OER material so it's affordable to students and meet universal design course standards. There are multiple Methods of Instruction to accommodate different style learners, and since this is a CTE course, the course materials discuss current and relevant work-related technical topics for students.

Course Development Options**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

Repeat Limit

99

Course Prior To College Level

Not applicable.

Repeatability Statement

(No limit on student re-enrollment for 0 unit courses.)

Course Support Status (CB26)

Course is not a support course

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Autonomous and Electric Vehicle Technician (Level 1)	Certificate of Completion	Fall 2024 to Fall 2026
Autonomous and Electric Vehicle Technician (Level 1)	Certificate of Completion	Fall 2026
Database Science Practitioner	Certificate of Completion	Fall 2025 to Fall 2026
Database Science Practitioner	Certificate of Completion	Fall 2026
Introduction to Computer Science	Certificate of Completion	Fall 2025 to Fall 2026
Introduction to Computer Science	Certificate of Completion	Fall 2026

Transferability & Gen. Ed. Options	
Course General Education Status (CB25)	
Y	
Transferability (CB05)	Transferability Status
Not transferable	Not transferable

UC Transferable and/or Lower-Division Major Requirement
Will the course be UC transferable?
No
If yes, identify the lower-division UC course and campus.
No Value
Will the course fulfill a UC/CSU lower-division major requirement?
No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	0
Maximum Credit Units	0
Total Course In-Class (Contact) Hours	66
Total Course Out-of-Class Hours	96
Total Student Learning Hours	66

Credit / Non-Credit Options

Course Credit Status (CB04)

Non-Credit

Course Non Credit Category (CB22)

Workforce Preparation.

Course Classification Code (CB11)

Workforce Preparation Enhanced Funding.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education

☐ Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	18
NA	0
Total	66
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
---------------	------	----------	--------------

No Value	No Value	No Value	No Value
SKIP			
No Value			
Specifications			
Methods of Instruction			
Methods of Instruction	Methods of Instruction		
Methods of Instruction	Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises Homework and extended projects		
Assignments			
A. Reading in textbook and lecture notes B. 7-10 homework lab assignments to be done on a Unix/Linux system, and the assignments are on using different utilities for text editing, file manipulation, email, Internet utilities, directory structures, input/output handling, and shell features.			
Methods of Evaluation	Methods of Evaluation		
Methods of Evaluation	A. Evaluation of lab and homework assignments for completeness and correctness in using the Unix / Linux operating system utilities and the shell. B. Exams and quizzes to determine proficiency in working with the components of the Unix/Linux operating system and on appropriate use of utilities and the shell. C. Comprehensive final exam to determine proficiency in working with the components of the Unix / Linux operating system and on appropriate use of utilities and the shell.		
Essential Student Materials/Essential College Facilities			
Essential Student Materials:			
• None			
Essential College Facilities:			
• Computer lab with access to a Unix/Linux server			
Examples of Primary Texts and References			
Author	Title	Publisher	Date/Edition
			ISBN

Suggested Reading List

No Value

Learning Outcomes**Course Objectives**

Edit text using the vim text editor

Create file and directory system

Investigate security and file permission

Apply and investigate different shells

Perform basic file maintenance and use information utilities

Apply shell features

Apply quoting rules

Demonstrate user interaction with email and other communication utilities

Apply filters

Apply networking utilities

Apply the extended set of regular expressions

CSLOs**Use the Unix/Linux Operating System utilities and shell features for basic file manipulation, networking, and communication.**

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Edit text using the vim text editor
 - 1. Data input and saving
 - 2. Insert and command mode
 - 3. Editing and file manipulation
 - 4. Local, range, and global commands
 - 5. Handling text objects in search and substitution
 - 6. Adding, cutting, pasting, and deleting text
- B. Create file and directory system
 - 1. File names and wild cards
 - 2. File types
 - 3. Regular files
 - 4. Directories
 - 5. File system
 - 6. Operations applied only to directories
 - 7. Operations applied only to regular files
 - 8. Operations applied to both directories and regular files
- C. Investigate security and file permission
 - 1. Users and groups
 - 2. Security levels
 - 3. /etc/passwd file
 - 4. Permissions for files and directories
 - 5. Changing permission
 - 6. User masks
- D. Apply and investigate different shells
 - 1. Job control
 - 2. Aliases
 - 3. Variables
 - 4. Shell and environment customization
- E. Perform basic file maintenance and use information utilities
 - 1. History
 - 2. Types of Unix / Linux systems available
 - 3. Hardware platforms running Unix / Linux
 - 4. Logging in/out
 - 5. Basic attributes of UNIX / LINUX commands and filenames
 - 6. General purpose commands
 - 7. Script command
- F. Apply shell features
 - 1. Standard file input / output
 - 2. Redirection (input, output, and error)
 - 3. Pipe and Tee
 - 4. Command execution
 - 5. Command line editing and history files
- G. Apply quoting rules
 - 1. Quotes
 - 2. Escape character
 - 3. Command substitution
- H. Demonstrate user interaction with email and other communication utilities
 - 1. write
 - 2. mail
- I. Apply filters
 - 1. Concept
 - 2. cat, head, and tail commands
 - 3. cut and paste commands
 - 4. sort command including multiple-field and multiple-pass sorting
 - 5. tr, unique, and wc commands
- J. Apply networking utilities
 - 1. ssh
 - 2. sftp
- K. Apply the extended set of regular expressions
 - 1. Atoms (single character, dot, class, anchor)

2. Operators (sequence, alternation, repetition, group)

Lab Outline

- A. Use basic utilities to explore system data, user data, and common tasks such as:: passwd, who, whoami, finger, w, uname, man, script, bc, date, echo
- B. Differentiate file types; explore filename conventions and use wildcards; use utilities that manipulate regular files
- C. Use the vim editor to edit text files
- D. Work with the directory tree and path name convention; use utilities that work with directories
- E. Investigate the concept of links and types of links; create links to regular files and directories; explore inodes
- F. Communicate with other users using write; send and receive mail; work across the network using ssh and sftp
- G. Demonstrate the levels and types of permission; set file permission; explore the effects of different types of permissions; changing the permission mask
- H. Using features of the shell such as redirection, tee, pipe, command grouping, command substitution, job control; explore the common types of shell
- I. Use filters to produce and format output
- J. Use the extended set of regular expressions for pattern matching: atoms, anchors, operators

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

No Value

Advisory(ies) - Other:

CIS D004.

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- NONCREDIT: (This is a noncredit enhanced, CTE course.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

This advisory is being removed because the ESL/EWRT courses support strategic thinking in essay writing, which doesn't match the skills needed in CIS 318A to write single command lines to work with the Linux OS.

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Discussion of assigned reading.

Objective 2: Develop analytical ideas and topics for essays.

Discussion and problem solving performed in class.

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/18/2026	Specifications	Examples of Primary Texts and References	Suggested	Thanks for this OER resource. Does this book reflect diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If yes, let me know in the initiator response box.	Y The book discusses the pros and cons of using the command line, which is a different way to work with computers, vs. the GUI that students typically use with their computers. The command line is widely used in the tech field and is relevant and important to CS students.
03/18/2026	Specifications	Assignments	Suggested	Do any of these assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency. (2) Encourage students to connect course content to their own life, background, and experiences.; (3) provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If yes, consider revising to note this for the relevant assignment(s). If not appropriate, please let me know in the initiator response box the other way(s) the assignments are providing students diverse ways of demonstrating knowledge.	Y Due to the technical nature of the course, (1) students can only demonstrate proficiency by showing whether their command lines efficiently complete the require task or not (but they have many attempts to arrive at the correct command line, with feedback from the Linux system directly), and (2) the command lines don't have direct connection to students' general life and background. However, this course builds on accumulated knowledge, so (3) students intrinsically have a chance to revise their work. If they had an error in assignment 2 and saw the instructor feedback and solution, then they can revise their work in the following weeks because the concepts of week 2 are used extensively in weeks 3 and beyond.
03/18/2026	Outline	Course Outline	Suggested	Consider revisions to clarify select technical terms (vim editor, for example), and to highlight the current and relevant work-related technical topics for students (noted in the DEI statement). If not appropriate, let me know in the initiator response box.	Y Changed the course objective to: Edit text with the vim text editor With the new "vim text editor" instead of the previous "vim editor", students who don't know vim will have a general idea that they'll work with a text editor, and students who recognize the name vim will appreciate that they'll learn a tool that's an industry standard. As for "highlight current and relevant work-related technical topics", the topics listed in the course objectives are relevant to CS students: networking, security, email, file, directory.

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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4/9/26	Matrix B	Required	The skill/assignments/activities listed must come from the Assignments, Methods of Evaluation, and/or the Outline. Please indicate where they can be found in eLumen. Y They are in the Outline. These statements are in eLumen, but they are listed under Methods of Instruction, which is not one of the categories that you may cite from. Under the Specifications tab, you can scroll down to Assignments and Methods of Evaluation. You can also use the Outline tab to cite things from the course outline. Feel free to email me if you have any questions. -zj Your Matrix G is fine, it is your Matrix B that needs to be fixed - 4/29 The advisory that requires Matrix B is removed, with an explanation posted in Matrix B.
Stage 7: Dean of Online Learning No Value			
Stage 8: SLO Coordinator No Value			
Stage 10: Curriculum Committee No Value			
CO			
Sort ID (00 < 10; 0 < 100) CIS 318A			
Course Status New			
Course Characteristics - CTE - Noncredit Enhanced			
Cross-Listed/Related Course Information NA			
Cross-Listed/Related Course ID's No Value			
DL Approval Date (MM/DD/YYYY) No Value			

Hybrid Approval Date (MM/DD/YYYY)

06/02/2020

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -mc

CISD026A : C as a Second Programming Language

General Information

Faculty Initiator:	Delia Garbacea
Attachments:	ReqAdv_G_CIS_26A_2027F_2.pdf ReqAdv_G_CIS_26A_2027F_1.pdf Hybrid_CIS_26A_2027F.pdf Online_CIS_26A_2027F.pdf
Course ID (CB01A and CB01B) :	CISD026A
Short Course Title:	C AS 2ND PROGRMMNG LANG
Course Title (CB02) :	C as a Second Programming Language
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000200051
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course provides a comprehensive introduction to C programming, covering core language fundamentals and practical implementation techniques. Students will explore essential concepts, including input/output, control structures, character/string manipulation, arithmetic expressions, modular programming via functions, and memory management using arrays, pointers, structures, and linked lists. Beyond theory, the curriculum focuses on building hands-on skills in writing, implementing, testing, and debugging C applications.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Science
Discipline 2:	No value
Discipline 3:	No value

FSA:

- FHDA FSA - COMPUTER SCIENCE

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a UC and CSU transferable CTE course. It is intended for those who are intermediate-level programmers in another programming language to learn the skills of writing code in C computer language. This course belongs on the Programming in Python Certificate of Achievement.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|--|---|
| ☐ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☐ Specifications - Methods of Evaluation |
| ☐ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

CIS 26A incorporates DEI through targeted assignments and methods of instruction designed to foster a sense of belonging and bridge equity gaps for underrepresented students. These approaches focus on using relevant content, providing multiple avenues for engagement, and using inclusive teaching strategies. All examples of primary textbooks are low cost. One of them without the lab component is free. The examples of primary texts meet the universal design course standards, reflect diverse authors and discuss current debates in the field that are relevant to students.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Programming in Python	Certificate of Achievement (COA)	Fall 2025 to Fall 2026
Programming in Python	Certificate of Achievement (COA)	Fall 2026

Transferability & Gen. Ed. Options					
Course General Education Status (CB25)					
B					
Transferability (CB05)			Transferability Status		
Transferable to both UC and CSU			Approved		
De Anza GE - Supplemental	Area(s)	Status	Approval Date	End Date	-
2G4M	DA and 4-yr GE Math Ag	Approved	No value	No value	No - defined.

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4.5
Maximum Credit Units	4.5
Total Course In-Class (Contact) Hours	66
Total Course Out-of-Class Hours	96
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	18
NA	0
Total	66

Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids. Guest speakers Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Homework and examination review performed in class Collaborative learning in small group exercises Collaborative projects Laboratory discussion sessions Laboratory experience which involve students in design, code, test and debug efficient C programs
Assignments	
A. Reading: Required reading from textbook and supplemental sources. B. Programs: 6-8 programming homework assignments (at least two should be about 500 lines of code, including standard documentation) covering the Lab Topics specified in Outline / Lab Outline below. The programming homework assignments provides choices in how students demonstrate proficiency, encourage students to connect course content to their own life, background, and experiences, and provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection.	
Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Evaluation of assigned C programs for completeness, correctness, and employing the key concepts presented in class lectures and class problem solving.

- B. One to three exams that appraise comprehension and require synthesis and application of course material.
- C. A comprehensive final exam that appraises comprehension and requires synthesis and application of course material such as creating algorithms and writing code involving arrays and/or structures and/or linked lists. Code is evaluated on correctness, effectiveness and readability.
- D. In-class lab problems, group collaborative problems, exam questions and/or online assignments or tutorials demonstrating the ability to read and analyze code through debugging and/or writing snippets of code.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Access to a computer with a C compiler

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Perry, Greg; Miller, Dean	C Programming Absolute Beginner's Guide	Pearson Education	2013 / Third Edition	ISBN-10: 0789751984.ISBN-13: 978-0789751980
Roman Lysecky and Frank Vahid	Programming in C with zylabs	Zyante Inc. (zyBooks.com)	September 2025	Available at zyBooks.com

Suggested Reading List

Reading List

Harbison, Samuel "C: A Reference Manual", 5th Edition, Pearson Education, 2007. ISBN 8131714403, 9788131714409

May include, but are not limited to

No value

Learning Outcomes

Course Objectives

Create programs which demonstrate knowledge of basic input/output concepts, variable usage, arithmetic operators.

Implement control structures in well-organized, highly readable programs.

Create programs using appropriate modularity and coherent functions.

Create programs which demonstrate knowledge of manipulating data in arrays of one or more dimensions.

Create programs which demonstrate knowledge of memory management functions and pointer arithmetic to manipulate data in one-dimensional arrays.

Demonstrate proficiency in handling file input and output.

Demonstrate proficiency in handling terminal input and output including special character functions.

Create programs which demonstrate knowledge of handling data as structure.

Create programs with more sophisticated character functions, math functions, and memory formatting.

CSLOs

Read, analyze and explain introductory and intermediate level C programs.

Expected SLO Performance: 0.0

Design solutions, create algorithms, code, document, debug, and test introductory and intermediate level problems using appropriate design methodology incorporating elementary and intermediate programming constructs.

Expected SLO Performance: 0.0

Outline

Course Outline

A. Create programs which demonstrate knowledge of basic input/output concepts, variable usage, arithmetic operators.

1. The main function
2. "Include" files
3. The printf function and basic output
4. The scanf function and basic input
5. Declaring scalar variable types
6. Basic arithmetic expressions and operator precedence
7. Mixed type
8. #define constants
9. Program documentation and readability enhancements

B. Implement control structures in well-organized, highly readable programs.

1. Loops: The for, while, and do . . .while statements
2. Conditional execution
 - a. If . . .then. . .else
 - b. Switch
 - c. The ternary operator (the ? operator)
 - d. Structure and evaluation of boolean expressions
3. The idea of a program block

C. Create programs using appropriate modularity and coherent functions.

1. Declaring functions via prototyping

2. Calling functions
 3. Function parameters
 4. Local variables: static, automatic, and register storage types
 5. Call-by-value and call-by reference
 6. The return statement: type conversion rules
 7. Relationship of actual and formal parameters
 8. Program modularity and coherent functions
- D. Create programs which demonstrate knowledge of manipulating data in arrays of one or more dimensions.
1. Non-character arrays
 - a. Declaration and initialization
 - b. Array indexing versus pointer arithmetic
 - c. Array traversal with pointers
 - d. Array assignment and copying
 2. Arrays of character i.e. "strings"
 - a. Declaration and initialization
 - b. String input/output using scanf/printf and gets/puts
 - c. String traversal with pointers
 - d. Passing strings to functions
 - e. The string.h functions: strcat, strncat, strcpy, strncpy, strcmp, strncmp, strchr, strrchr, and strlen
 3. Intro to Multidimensional arrays and arrays of pointers
 - a. Declaration and initialization
 - b. Traversal
 - c. Dynamic array allocation
- E. Create programs which demonstrate knowledge of memory management functions and pointer arithmetic to manipulate data in one-dimensional arrays.
1. * and & operators
 2. Static versus dynamic array allocation: introduction to the malloc, calloc, realloc, and free functions
 3. The difference between an array and a pointer variable
 4. Passing arrays to and using arrays within functions
 5. Call by reference
 6. Arrays of pointers
- F. Demonstrate proficiency in handling file input and output.
1. Opening files: The fopen function and the "r" and "w" open modes
 2. The fgets, fputs, fprintf, fscanf, fgetc, and fputc functions
 3. Line-oriented files: Using fgets in loop headers
 4. Character-oriented files: The value of EOF and the feof function
 5. Closing files: The fclose function
- G. Demonstrate proficiency in handling terminal input and output including special character functions.
1. The correct way to read line-oriented terminal input: the fgets and sscanf functions
 2. Pitfalls of scanf for terminal i/o
 3. The getchar, ungetc, and putchar functions
 4. User-generated end-of-file: How to detect
 5. Line-buffered versus character-buffered terminal i/o: implications for programmers
- H. Create programs which demonstrate knowledge of handling data as structure.
1. The . and -> notations to access structure components
 2. Arrays of structures: declaring, assigning, and traversing
 3. Passing structures and arrays of structures to functions
 4. Nested structures: notational problems and solutions
 5. Self-referential structures and introduction to dynamic data types: singly-linked lists
 6. The typedef statement
- I. Create programs with more sophisticated character functions, math functions, and memory formatting.
1. The math library
 2. The ctype.h library: the isalpha, isalnum, isdigit, toupper, and tolower functions
 3. The sprintf and sscanf functions

Lab Outline

- A. Design algorithms, code solution, debug and test programs employing variables, expressions, and input/output.
- B. Design algorithms, code solution, debug and test programs employing control and flow structures.
- C. Design algorithms, code solution, debug and test program employing functions(pre-defined and user-defined)
- D. Design algorithms, code solution, debug and test program employing one dimensional arrays.
- E. Design algorithms, code solution, debug and test program employing two dimensional arrays.
- F. Design algorithms, code solution, debug and test program employing memory allocation.

- G. Design algorithms, code solution, debug and test program employing pointer arithmetic.
- H. Design algorithms, code solution, debug and test program employing string manipulation.
- I. Design algorithms, code solution, debug and test program employing structures.
- J. Design algorithms, code solution, debug and test program employing singly-linked lists.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

An Introductory Programming Language course such as CIS D022A or CIS D036A or equivalent

Corequisite(s):

No Value

Advisory(ies):

No Value
Advisory(ies) - Other: No Value
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: (This course is intended for students who are competent in another programming language.)
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): No Value
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. No Value
Objective 2: Compose essays drawn from personal experience and assigned texts. No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page. No Value
Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value
Objective 5: Use systems of two linear equations to solve real world problems.
No Value
Objective 6: Use linear inequalities in one variable to solve real world problems.
No Value
Objective 7: Examine exponential expressions and develop exponential function models.
No Value
Objective 8: Examine logarithmic expressions and develop logarithmic function models.
No Value
Objective 9: Develop quadratic function models to solve problems.
No Value
Objective 10: Investigate the characteristics of rational expressions.
No Value
Objective 11: Develop skills to work with radical expressions.
No Value

E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
3/15/2026	Basics	Course Justification	Required	Include that it is CTE: This course is UC and CSU transferable and is intended for those who are intermediate-level programmers in another programming language to learn the skills of writing code in C computer language. This course belongs on the Java Certificate of Achievement.	Y

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/24/2026	Basic Course Information	Course Description	Suggested	Consider revisions to use welcoming, student-centered language and minimize the use of impersonal, course-centered language, and to describe the knowledge, skills, and abilities students will gain upon the completion of the course	Y
4/24/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	There is no representative OER textbook. All examples of primary textbooks are low cost. One of them without the lab component is free.
4/24/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or reflect diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y

Thanks for this list of assignments. Consider clarifying what "Lab Topics specified in X. below." Means in this context.

4/24/2026 Specifications	Assignments	Suggested	Also, Do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (2) Encourage students to connect course content to their own life, background, and experiences; (3) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, that's fine, just let me know in the Initiator response box.	Y
4/24/2026 Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Not appropriate for my COR
4/24/2026 Outline	Course Outline	Suggested	This may not be appropriate given the highly technical nature of the course, but if appropriate, consider minor revisions to provide space to reflect on diverse perspectives and/or experiences, inequities, racism, or other barriers to inclusion specific to the course subject. If not appropriate, that's absolutely fine, just let me know in the initiator response box.	Not appropriate for my COR

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

No Value

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CIS 026A

Course Status

Non-substantial
Course Characteristics • CTE
Cross-Listed/Related Course Information • NA
Cross-Listed/Related Course ID's No Value
DL Approval Date (MM/DD/YYYY) 02/11/2020
Hybrid Approval Date (MM/DD/YYYY) 02/11/2020
Curriculum Office Notes • Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

CISD029. : Advanced C++ Programming

General Information

Faculty Initiator:	Mary Pape
Attachments:	ReqAdv_G_CIS_29_2027F_1.pdf Online_CIS_29_2027F.pdf Hybrid_CIS_29_2027F.pdf
Course ID (CB01A and CB01B) :	CISD029.
Short Course Title:	ADV C++ PROGRAMMING
Course Title (CB02) :	Advanced C++ Programming
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	B - Advanced Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000511482
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course explores advanced topics in C++, including namespaces, the string and stringstream classes, cast operators, multiple inheritance, exception handling, compilation concepts, libraries, templates, the Standard Template Library, and programming style. Alongside technical mastery, the course incorporates a Diversity, Equity, and Inclusion (DEI) perspective by emphasizing inclusive collaboration, equitable access to learning resources, and awareness of how software design can affect diverse users and communities. Students will examine programming practices that promote accessibility, maintainability, and ethical responsibility in software development while engaging with examples and discussions that highlight the contributions of diverse professionals in computing.
Course Type (CB27) :	No value
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Science
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - COMPUTER SCIENCE

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This CTE course is CSU and UC transferable. This course belongs on the Systems Programming AA Degree. The course builds on students' existing background in C++ to complete their knowledge of inheritance, C++ libraries, and templates.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☐ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course provides students the opportunity to develop skills in C++ including namespaces, the string and stringstream classes, cast operators, multiple inheritance, exception handling, compilation concepts, libraries, templates, the Standard Template Library, and programming style. The Examples of Primary Texts and References include open source material so it's affordable to students. This open source text gives a clear, structured explanations of modern C++ concepts with focus on real-world programming practices (authentic relevance). The course incorporates a DEI perspective by emphasizing inclusive collaboration, equitable access to learning resources, and awareness of how software design affects diverse users and communities. Students examine programming practices that promote accessibility, maintainability, and ethical responsibility while engaging with examples that highlight contributions from diverse professionals in computing. Objective has been added with a focus on accessibility considerations in application design, D.E.I.responsibility in coding, and maintainability of code.

Course Development Options

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 - Pass/No Pass
Repeat Limit 0	Course Prior To College Level Not applicable.	Repeatability Statement No value
Course Support Status (CB26) Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Business Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Programming	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Programming in C/C++	Certificate of Achievement (COA)	Fall 2025

Systems Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Systems Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Systems Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Systems Programming	Associate in Arts (A.A.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units

4.5

Maximum Credit Units

4.5

Total Course In-Class (Contact) Hours

66

Total Course Out-of-Class Hours	96
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Credit Status (CB04)	Course Non Credit Category (CB22)
Credit - Degree Applicable	Credit Course.

Course Classification Code (CB11)	Funding Agency Category (CB23)	Cooperative Work Experience Education Status (CB10)
Credit Course.	Not Applicable.	☐
☐ Variable Credit Course		

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	18
NA	0
Total	66
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications
Methods of Instruction

Methods of Instruction**Methods of Instruction****Methods of Instruction**

Lecture and visual aids
Guest speakers
Discussion of assigned reading
Discussion and problem solving performed in class
Quiz and examination review performed in class
Homework and extended projects
Collaborative learning and small group exercises
Collaborative projects
Other:Laboratory discussion sessions
Other:Laboratory experiences which involve students in designing, coding, and testing and debugging efficient advanced C++ programs.

Assignments

- A. Required reading from the textbook and supplemental sources.
B. Programs: 5 - 9 programming assignments, suitable for individual work, as a team project, or pair programming evaluated on design, coding, debugging, and testing.
1. Discuss, investigate and select a good style for the programming assignments.
 2. Outline and build the framework for the programming assignments.
 3. Conduct code reviews where revision and re-submission is encouraged.
 4. Build classes.

Methods of Evaluation**Methods of Evaluation****Methods of Evaluation**

- A. One to three midterms to include program writing that appraise comprehension and require synthesis and application of course material. Code is evaluated on correctness, effectiveness and readability.
B. Final Examination requiring some programming demonstrating ability to develop an algorithm and write code. The code will involve using the Standard Template Library and/or demonstrate classes using multiple inheritance and/or apply operator overloading and/or create and use templates. Code is evaluated on correctness, effectiveness and readability.
C. Evaluation of assigned C++ programs for completeness, correctness, and employing the key concepts presented in class lectures and class problem solving. Students will either submit programs as files or present their work to their instructor and peers.
D. In-class lab problems, group collaborative problems, exam questions and/or online assignments or tutorials demonstrating the ability to read and analyze code through debugging and/or writing snippets of code. The code will involve using the Standard Template Library and/or demonstrate classes using multiple inheritance and/or apply operator overloading and/or create and use templates.

Essential Student Materials/Essential College Facilities**Essential Student Materials:**

- None

Essential College Facilities:

- Classroom and laboratory facilities with personal computers networked with LINUX and non-UNIX servers
- Required software includes C++ compilers

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Stroustrup, Bjarne	"A Tour of C++ (C++ In-Depth Series)"	Pearson Education	2022/4th Edition	ISBN 10: 0136816487 ISBN 13: 9780136816485
Scott Meyers	Overview of the New C++	-	2016	http://www.artima.com/ebook?n=0u5KizF94v
Suggested Reading List				
Reading List	Stroustrup, Bjarne; Pearson Education, "C++ Programming Language", Fourth Edition, 2013. ISBN-10: 0321563840, ISBN-13: 978-0321563842			
May include, but are not limited to	No value			

Learning Outcomes
Course Objectives
Apply standard classes
Apply operator overloading like new and delete
Implement Inheritance and Polymorphism
Create exception handling procedures
Create and use libraries in compilation
Create and use templates
Create programs using the Standard Template Library
Create programs using object oriented design techniques that exhibit efficiency, readability, and fairness in design, considering how software systems can support inclusive and equitable technology use.

CSLOs

Read, analyze and explain advanced C++ programs.

Expected SLO Performance: 0.0

Design solutions, create algorithms, code, document, debug, and test C++ programs using appropriate design methodology and incorporating advanced C++ programming constructs.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Apply standard classes
 - 1. STL container classes
 - 2. string and stream classes
 - 3. smart pointers
 - 4. bitsets
 - 5. utility classes
 - 6. time and chrono
 - 7. error handling
 - 8. algorithms and iterators
 - 9. regular expressions
 - 10. move vs copy semantics
 - 11. threading
 - 12. type_info class
- B. Apply operator overloading
 - 1. new and delete
 - 2. C++ cast operators
 - 3. I/O manipulators
 - 4. I/O operator overloading
 - 5. RTTI
- C. Implement Inheritance and Polymorphism
 - 1. Single inheritance
 - 2. Multiple inheritance
 - 3. Polymorphism
- D. Create exception handling procedures
 - 1. try
 - 2. throw
 - 3. catch
 - 4. Uncaught exception
 - 5. Standard exceptions
- E. Create and use libraries in compilation
 - 1. Standard libraries
 - 2. User built libraries
 - 3. Name spaces
- F. Create and use templates
 - 1. function templates
 - 2. class templates
 - 3. variants
 - 4. lambda expressions
- G. Create programs using the Standard Template Library
 - 1. Overview
 - 2. vector
 - 3. list
 - 4. deque
 - 5. stack
 - 6. queue
 - 7. priority_queue
 - 8. set
 - 9. map
 - 10. bitmap
 - 11. Algorithms
 - 12. Function objects
 - 13. auto_ptr
- H. Create programs using object oriented design techniques that exhibit efficiency, readability, and fairness in design, considering how software systems can support inclusive and equitable technology use.
 - 1. General recommendations and guidelines
 - 2. Effective use of object oriented methodology
 - 3. Class design and implementation using UML diagrams.
 - 4. Method design and implementation
 - 5. Equity and accessibility considerations in software development, including how programming decisions can impact diverse users and communities.

Lab Outline

- A. Design algorithms, code solution, debug and test program employing multiple inheritance and polymorphism..
- B. Design algorithms, code solution, debug and test program employing string and stringstream classes.
- C. Design algorithms, code solution, debug and test program employing C++ style casts and reflections.
- D. Design algorithms, code solution, debug and test program employing libraries and exception handling
- E. Design algorithms, code solution, debug and test program employing templates and variants.
- F. Design algorithms, code solution, debug and test program employing STL-based program design and debugging
- G. Design algorithms, code solution, debug and test program employing regular expressions and threading.

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

CIS D022B (or CIS D22BH) or equivalent

Corequisite(s):

No Value
Advisory(ies): No Value
Advisory(ies) - Other: No Value
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: No Value
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): No Value
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. No Value
Objective 2: Compose essays drawn from personal experience and assigned texts. No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page. No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

Remove based on "Apply & Register" updated requirements: "When [a student completes] the CCCApply application, [they] provided De Anza with [their] U.S. high school transcript information. Most students earn their English or ESL and math course placements based on the assessment of information."

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/10/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y and N This is a high level programming course. One text recommended is high level industry standard and the open source one is highly technical too but with an emphasis on new features making C++ safer and more efficient. Thus, multiple ways of presenting information, making effort to engage students and multiple assessment methods are very important in the teaching of this class.
4/10/2026	Specifications	Assignments	Suggested	Thanks for this list of assignments. Are there any assignments where students are presenting on their reading/coding? If yes, you might consider including these to bring in additional means of action/expression (the course currently only has reading and coding assignments). Also, do assignments do one or more of the following: (1) Encourage students to connect course content to their own life, background, and experiences; (2) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y Assignments are updated to promote collaboration.
4/10/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - Included presentation of work as a means of assessment.

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
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5/3/26	Matrix E	All that apply	Required	PLease complete for your Math advisory	Remove based on "Apply & Register" When [student} completed the CCCApply application, [they] provided De Anza with [their] U.S. high school transcript information. Most students earn their English or ESL and math course placements based on the assessment of information.
5/3/26	Matrix G		Required	The material in the left hand column must come from the course objectives (not the expanded content), These can be found on the Learning Outcomes tab	Y
5/5/26	Req/Adv	Advisories	Required	If you are removing your Math advisory you need to remove it from this tab as well	Y
Stage 7: Dean of Online Learning					
No Value					
Stage 8: SLO Coordinator					
No Value					
Stage 10: Curriculum Committee					
No Value					

CO
Sort ID (00 < 10; 0 < 100)
CIS 029
Course Status
Non-substantial
Course Characteristics
CTE
Cross-Listed/Related Course Information
NA
Cross-Listed/Related Course ID's
No Value
DL Approval Date (MM/DD/YYYY)
02/11/2020
Hybrid Approval Date (MM/DD/YYYY)
02/11/2020

Curriculum Office Notes

- Requisite change appr. 1/17/23 (effect. F23).-cc

CISD038. : iOS Development

General Information

Faculty Initiator:	Mary Pape
Attachments:	ReqAdv_G_CIS_38_2027F.pdf Online_CIS_38_2027F.pdf Hybrid_CIS_38_2027F.pdf
Course ID (CB01A and CB01B) :	CISD038.
Short Course Title:	IOS DEVELOPMENT
Course Title (CB02) :	iOS Development
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000553655
Curriculum Committee Approval Date:	10/26/2021
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course is an introduction to mobile app design and development for devices running iOS using its native object-oriented programming language Swift and basic design patterns. Students will learn to use Application Programming Interfaces (APIs) to construct powerful applications and apply best practices in user interface and user experience design. The course also encourages students to consider diverse user needs and perspectives when designing mobile applications, including accessibility, inclusive design, and equitable technology use. By the end of the course, students will understand how thoughtful design and development practices can help create mobile apps that are usable and welcoming for people from a wide range of backgrounds, abilities, and communities.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Discipline 2:	Computer Science
Discipline 3:	No value
FSA:	FHDA FSA - CIS

Formerly Statement

Formerly Statement

(Formerly CIS 055.)

Course Justification**Course Justification**

This course is part of the Web Development Certificate and is UC and CSU transferable. This course will inform students how to write and deploy applications for the iPhone, iPod Touch, iPad, and Apple TV.

Stand-Alone Statement**Stand-Alone Statement**

No Value

Course Philosophy**Course Philosophy**

No Value

CTE Course**Is this a CTE (Career Technical Education) course?**

Yes

Honors/Non-honors Course**Is this an honors/non-honors course?**

No

Mirrored Credit/Noncredit Course**Is this a mirrored credit/noncredit course?**

No

Cross-listed Course**Is this a cross-listed course?**

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course teaches students to write apps for organizations that will hire them to write apps, but students will also learn the skills to write apps for their own business or start a small business that leads to writing apps for others. As part of the curriculum upholding to iOS best practices, accessibility tools will be discussed. Topics for programming assignments will be varied and topics for projects can be student's choice. Open source primary text has been added. iOS 26 Programming for Beginners: A hands-on guide to kickstarting your iOS app development journey with Swift 6, UIKit, and Xcode 26 is priced at \$34.99 on Amazon and therefore is considered a low-cost resource for students. Outline has been updated to include space to discuss ethics and maintaining secure data.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

- ☒ Course is part of a program

Associated Program

Award Type

Active

Liberal Arts (Business and Computer Information Systems Emphasis)

Associate in Arts (A.A.) Degree

Fall 2025 to Fall 2026

Liberal Arts (Business and Computer Information Systems Emphasis)

Associate in Arts (A.A.) Degree

Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units 4.5

Maximum Credit Units 4.5

Total Course In-Class (Contact) Hours 66

Total Course Out-of-Class Hours 96

Total Student Learning Hours 162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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

Course Student Hours

Course Duration (Weeks)

12

Lecture Hours

4

8

Hours per unit divisor

36

Laboratory Hours	1.5	0	Course In-Class (Contact) Hours	
NA Hours	0	0	Lecture	48
			Laboratory	18
			NA	0
			Total	66
			Course Out-of-Class Hours	
			Lecture	96
			Laboratory	0
			NA	0
			Total	96

Units and Hours - Weekly Specialty Hours

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

SKIP

Specifications

Methods of Instruction

Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visual aids Discussion of assigned reading Homework and extended projects Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises Homework and extended projects Discussion and problem solving performed in class Collaborative projects Guest speakers

Assignments

- A. Readings from text.
- B. Documenting, coding, testing and debugging six to ten guided apps with clearly documented design. Topics to represent a diverse community of students and allow for individual completion and submission, team team completion and submission, and pair programming concept. Students have opportunity to submit files or present the app to their peers. Students have opportunity to gather feedback, update and submit/resubmit.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. One or two midterm examinations requiring students to write code applying topics covered in the lectures and reading. Code will be evaluated on correctness.
- B. Final examination requiring students to write code applying topics covered in the lectures and reading. Code will be evaluated on correctness.
- C. Evaluation of programming assignments based on correctness, documentation, code quality, and test plan executions.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Access to a computer laboratory with Apple Macintosh computers configured with XCode and iOS Simulator

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
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Vin Bui	Cornell AppDev Intro to iOS Development.	GitBooks Community Plan	2024	https://www.youtube.com/@CornellAppDev/playlists
Ahmad Sahar	iOS 26 Programming for Beginners: A hands-on guide to kickstarting your iOS app development journey with Swift 6, UIKit, and Xcode 26	Packt Publishing	November 2025	1806023938; ISBN-13978-1806023936
Suggested Reading List				
No Value				

Learning Outcomes
Course Objectives
Explain elements of iOS architecture and tools (Mac OS X framework stack, Cocoa Touch, Swift, Tools)
Build iOS application and deploy to Apple Marketplace sandbox.
Build basic applications using Swift classes.
Apply design patterns to build user interfaces.
Create and run mobile application using Visual Layout Editor UI Controls.
Adapt Table views and input controls to enable interaction in iOS applications.
Utilize Asset Management to drive user interaction
Design applications to manipulate and store data.
Apply Activity Elements to manage content with rich iOS features.
CSLOs
Design mobile apps using object-oriented methodology and advanced Swift concepts using iOS Development Kit and APIs. Expected SLO Performance: 0.0
Create algorithms, code, document, debug, and test mobile applications. Expected SLO Performance: 0.0

Outline

Course Outline

- A. Explain elements of iOS architecture and tools (Mac OS X framework stack, Cocoa Touch, Swift, Tools)
 - 1. Mac OS X framework stack
 - 2. Cocoa
 - 3. Touch
 - 4. Swift
 - 5. Tools
- B. Build iOS application and deploy to Apple Marketplace sandbox.
 - 1. Apple Marketplace
 - 2. Accessibility tools
 - 3. iOS best practices - compatibility, supporting multiple screens and user interface guidelines
 - 4. Avoiding culturally biased icons, images, and metaphors
 - 5. Preparing and uploading application to Apple Market
 - 6. Launching and Managing iOS Applications
- C. Build basic applications using Swift classes.
 - 1. Swift classes
 - 2. Properties
 - 3. Methods
 - 4. Memory Management
- D. Apply design patterns to build user interfaces.
 - 1. Swift loose coupling with delegates and notifications
 - 2. Memory and Performance
 - 3. Views
 - 4. Model--View--Controller and View Controllers
 - 5. Universal Design for Learning (UDL) concepts applied to app interfaces
 - 6. Accessibility with voiceOver, closed captioning and color contrast
- E. Create and run mobile application using Visual Layout Editor UI Controls.
 - 1. XCode
 - 2. Interface Builder
 - 3. Outlet and Actions
 - 4. Advanced View Controllers
- F. Adapt Table views and input controls to enable interaction in iOS applications.
 - 1. Table View basics
 - 2. Advanced table views and cells
 - 3. Table views for hierarchical navigation
 - 4. Modal views and notifications
- G. Utilize Asset Management to drive user interaction
 - 1. AssetManager
 - 2. Menu to provide Application Options
 - 3. Using Handler to manage events
 - 4. Event handling to respond to user interactions
- H. Design applications to manipulate and store data.
 - 1. User input controls
 - 2. Manipulating and storing data
 - 3. SQL Lite and Core Data
 - 4. Ethically handling data
- I. Apply Activity Elements to manage content with rich iOS features.
 - 1. Multithreading
 - 2. XML, JSON, and Web Services
 - 3. Common coding standards, best practices, common patterns
 - 4. Multitouch, accelerometer, location awareness
 - 5. iPad

Lab Outline

- A. iOS Development Tools
- B. Delegates and Notifications
- C. User Interface and Menus
- D. Pictures and Animations
- E. Data Persistence
- F. Messaging and Networking
- G. Location Based Services

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv
Prerequisite(s): No Value
Corequisite(s): No Value
Advisory(ies): ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.
Advisory(ies) - Other: Any of the following courses: CIS D005., CIS D014A, CIS D022A, CIS D036A or CIS D041A
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: No Value
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): No Value
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. No Value
Objective 2: Compose essays drawn from personal experience and assigned texts. No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Outline: Readings from text.

Objective 2: Develop analytical ideas and topics for essays.

Assignments: Documenting, coding, testing and debugging six to ten guided apps with clearly documented design.

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

Assignments: Documenting, coding, testing and debugging six to ten guided apps with clearly documented design.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Assignment: Clearly documenting the code.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value
Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.
No Value
Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.
No Value
Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.
No Value
Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.
No Value
Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.
No Value

D-Matrix Form
Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
No Value
Objective 2: Investigate the use of mathematics in real world.
No Value
Objective 3: Explore functions.
No Value
Objective 4: Develop linear function models.
No Value
Objective 5: Use systems of two linear equations to solve real world problems.
No Value
Objective 6: Use linear inequalities in one variable to solve real world problems.
No Value
Objective 7: Examine exponential expressions and develop exponential function models.
No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/28/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to define acronym API.	
4/28/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y
4/28/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y Please see statement in DEI Review
4/28/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y Methods of Instruction indicates "Discussion and problem solving performed in class" which should be interpreted as where examples are given to problems parallel to the assignments given.

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value
Stage 6: Content Review Matrix Liaison No Value
Stage 7: Dean of Online Learning No Value
Stage 8: SLO Coordinator No Value
Stage 10: Curriculum Committee No Value

CO
Sort ID (00 < 10; 0 < 100) CIS 038
Course Status Non-substantial
Course Characteristics CTE
Cross-Listed/Related Course Information NA
Cross-Listed/Related Course ID's No Value
DL Approval Date (MM/DD/YYYY) No Value
Hybrid Approval Date (MM/DD/YYYY) 10/08/2019
Curriculum Office Notes - Course number change only appr. 10/26/21 (effect. F22).-mkct - Tech. change to req/adv to add noncredit ESL course, appr. 6/15/21 (effect. F22).-mkct - Requisite change appr. 1/17/23 (effect. F23).-cc - CCN requisite changes appr. 9/23/24 (effect. F25). -sw

Course Outline of Record Report

06/04/2026

CISD043. : Systems Design

General Information

Faculty Initiator:	Mary Pape
Attachments:	Online_CIS_43_2027F.pdf Hybrid_CIS_43_2027F.pdf
Course ID (CB01A and CB01B) :	CISD043.
Short Course Title:	SYSTEMS DESIGN
Course Title (CB02) :	Systems Design
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.10) Computer Programming
CIP Code:	(11.0201) Computer Programming/Programmer, General
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000567723
Curriculum Committee Approval Date:	10/26/2021
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course covers current tools of structured systems analysis and design, including data flow diagrams, structure charts, Hierarchy-Input-Output-Processing (HIPO) charts, Volume Table of Contents (VTOC) for data sets, data structures and data dictionaries, decision trees and tables, and pseudocode. Students examine how these tools are used to design information systems that serve diverse users and organizational contexts. Emphasis is placed on inclusive and equitable system design practices, considering accessibility, cultural perspectives, and the needs of historically underrepresented communities.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Science
Discipline 2:	Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Discipline 3:	No value
FSA:	FHDA FSA - CIS

Formerly Statement

Formerly Statement

(Formerly CIS 063.)

Course Justification**Course Justification**

This course enables the student to analyze a problem and develop a software design for subsequent programming. This course is UC and CSU transferable and required for A.A. in Business Programming.

Stand-Alone Statement**Stand-Alone Statement**

No Value

Course Philosophy**Course Philosophy**

No Value

CTE Course**Is this a CTE (Career Technical Education) course?**

Yes

Honors/Non-honors Course**Is this an honors/non-honors course?**

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

Through collaborative activities and case studies, students learn to apply structured analysis methods while evaluating the social, ethical, and equity implications of technology design and implementation. Text "Modern Systems Analysis and Design" offers both Glossary of Terms and Glossary of Acronyms. Reference lists at the end of each chapter have been updated and collectively offer more than 100 resources, including books, journals and websites current with technological trends in information systems analysis and design. Students will work collaboratively on analyzing case studies. Inclusion of methods of instruction such as collaborative projects and collaborative learning through small group exercises is designed to offer multiple ways for students to learn. Euitable support of students is assisted by discussion and problem solving performed in class.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs

☒ Course is part of a program

Associated Program	Award Type	Active
Business Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Business Programming	Associate in Arts (A.A.) Degree	Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Business Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Business and Computer Information Systems Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Science, Math and Engineering Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Systems Programming	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Systems Programming	Associate in Arts (A.A.) Degree	Fall 2026
Systems Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Systems Programming	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4.5
Maximum Credit Units	4.5
Total Course In-Class (Contact) Hours	66
Total Course Out-of-Class Hours	96
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36

Laboratory Hours	1.5	0	Course In-Class (Contact) Hours	
NA Hours	0	0	Lecture	48
			Laboratory	18
			NA	0
			Total	66
			Course Out-of-Class Hours	
			Lecture	96
			Laboratory	0
			NA	0
			Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture and visuals Discussion of assigned reading Discussion and problem solving performed in class In-class exploration of case studies involving variety of topics and industries Examination review Collaborative projects Collaborative learning and small group exercises Collaborative lab assignments
Assignments	
A. Reading: 1. Required reading from text 2. Descriptions of case studies 3. Current articles in the field B. Writing: 1. Evaluation of case studies including ones that highlight global and underrepresented perspectives in technology 2. Group write-up of problems from case studies 3. Term project requiring analysis of system requirements, solution alternatives, analysis of alternatives and proposed design	
Methods of Evaluation	Methods of Evaluation

Methods of Evaluation	A. Written assignments evaluated for completeness, appropriateness of solution, presentation and technical accuracy, using pre-established metric. These assignments will be suitable both for individual work and group collaboration. These assignments lend themselves to students being offered the opportunity for students to update work and resubmit. B. One or two midterm examinations requiring students to write code applying topics covered in the lectures and reading. Code evaluated on correctness, documentation and code quality. C. Evaluation of programming assignments based on correctness, documentation, code quality, and test plan executions. D. Final examination requiring students to write code applying topics covered in the lectures and reading.			
Essential Student Materials/Essential College Facilities				
Essential Student Materials: None				
Essential College Facilities: None				
Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Joseph S. Valacich ,Joey F. George.	"Modern Systems Analysis and Design"	Pearson	2025/10th edition	ISBN 9780138180072
Dennis, Alan; Wixom, Barbara Haley; and Roth, Roberta M.	"Systems Analysis and Design"	Wiley	2022/8th	9781119803782 / 1119803780
Open Source	OMG® Unified Modeling Language® (OMG UML®)	An OMG® Unified Modeling Language® Publication	Version 2.5.1	https://www.omg.org/spec/UML/2.5.1/PDF
Suggested Reading List				
No Value				

Learning Outcomes
Course Objectives
Describe system types and the system development cycle.
Analyze system requirements and evaluate proposed solutions
Implement structured design to create data flow diagrams, data structure/dictionaries, structure charts, HIPO charts, and VTOCs

Describe and evaluate a system design.

Communicate problem specifications, alternative solutions, resultant design to both system designers and user.

Examine prototyping, JAD, modeling tools, project management techniques, and CASE technologies

investigate societal impact

CSLOs

Describe and communicate system types and the systems development life cycle.

Expected SLO Performance: 0.0

Analyze system requirements and evaluate proposed solutions.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Describe system types and the system development cycle.
 - 1. Systems concepts
 - 2. Types of systems
 - 3. System development LIFE cycle
- B. Analyze system requirements and evaluate proposed solutions
 - 1. Data gathering and analysis
 - 2. Alternatives evaluation
 - 3. Data flow diagrams
 - 4. Data structure/dictionaries
 - 5. Process logic
 - 6. Decision Table/Trees
 - 7. Unified Markup Language
- C. Implement structured design to create data flow diagrams, data structure/dictionaries, structure charts, HIPO charts, and VTOCs
 - 1. Tools
 - a. Structure charts
 - b. HIPO charts
 - c. Decision table
 - d. Decision trees
 - e. Visual table of contents (VTOCs)
 - 2. Evaluation
 - a. Coupling
 - b. Cohesion
 - c. Design heuristics
 - d. Transformation analysis
 - e. Transaction analysis
 - 3. Define and implement module specification methods.
 - 4. Packaging
 - 5. Optimization
 - 6. Object oriented design
 - a. Concepts
 - b. Tools
- D. Describe and evaluate a system design.
 - 1. Formulation guidelines
 - 2. Evaluation considerations
- E. Communicate problem specifications, alternative solutions, resultant design to both system designers and user.
 - 1. Users
 - 2. Implementers
- F. Examine prototyping, JAD, modeling tools, project management techniques, and CASE technologies
 - 1. Case tools

- 2. Rapid Application Development (RAD)
- 3. Joint Application Development (JAD)
- G. Investigate societal impact
 - 1. Algorithmic bias
 - 2. Data ethics

Lab Outline

- A. Joint Application Design (JAD)
- B. Modeling tools
- C. Project management tools
- D. Case technologies
- E. Requirement Analysis and Design
- F. Object Oriented Design
- G. Distributed Systems

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value
Advisory(ies): ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.
Advisory(ies) - Other: No Value
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: No Value
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): No Value
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. No Value
Objective 2: Compose essays drawn from personal experience and assigned texts. No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page. No Value
Objective 4: Create syntactically varied sentences that are free of mechanical errors. No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Assignments: Required reading from text.

Objective 2: Develop analytical ideas and topics for essays.

Assignments: Evaluation of case studies

Objective 3: Compose and support thesis statements for analytical essays.

Assignments: Group write-up of problems from case studies.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

Assignments: Group write-up of problems from case studies.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Assignments: Term project requiring analysis of system requirements, solution alternatives, analysis of alternatives and proposed design

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Assignments: Group write-up of problems from case studies.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/28/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to define acronyms like VTOCs.	Y
4/28/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y Please refer to Basic. .tab under DEI Review.
4/28/2026	Specifications	Assignments	Suggested	Thanks for this list of assignments. Do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (3) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection? If yes, consider noting this for the relevant assignment. If not appropriate, that's fine, just let me know in the Initiator response box.	Y to #1 considering variety of "Methods of Instruction" and assignments Y to #3 updated

4/28/2026 Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box. Consider defining HIPO.	Y This is stated/covered in Methods of Instruction "In-class exploration of case studies involving variety of topics and industries".
4/28/2026 Outline	Course Outline	Suggested	This may not be appropriate given the highly technical nature of this course, but if appropriate, consider minor revisions to provide space to reflect on diverse perspectives and/or experiences, inequities, racism, or other barriers to inclusion specific to the course subject if appropriate. If not appropriate, that's fine, just let me know in the initiator response box.	Y HIPO defined in course description where it first appears. Y Space has been provided in Ojective G and G a & b of course outline.
Stage 4: Articulation Officer				
No Value				
Stage 5: De Anza General Education				
No Value				
Stage 6: Content Review Matrix Liaison				
No Value				
Stage 7: Dean of Online Learning				
No Value				
Stage 8: SLO Coordinator				
No Value				
Stage 10: Curriculum Committee				
No Value				

CO
Sort ID (00 < 10; 0 < 100)
CIS 043
Course Status
Non-substantial
Course Characteristics
CTE
Cross-Listed/Related Course Information
NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

05/28/2019

Curriculum Office Notes

- Course number change only appr. 10/26/21 (effect. F22).-mkct
- Tech. change to req/adv to add noncredit ESL course, appr. 6/15/21 (effect. F22).-mkct
- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -sw

CISD044H : R Programming

General Information

Faculty Initiator:	Sukhjit Singh
Attachments:	ReqAdv_G_CIS_44H_2027F.pdf Online_CIS_44H_2027F.pdf Hybrid_CIS_44H_2027F.pdf
Course ID (CB01A and CB01B) :	CISD044H
Short Course Title:	R PROGRAMMING
Course Title (CB02) :	R Programming
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.20) Database Design and Administration
CIP Code:	(11.0802) Data Modeling/Warehousing and Database Administration
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000615074
Curriculum Committee Approval Date:	10/26/2021
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course is an introduction to the R programming language and its applications in data analytics. Topics include data objects, data cleansing, merging and sorting, statistical analysis, data visualization, and working with RStudio. Students apply programming and analytical techniques to explore, analyze, and visualize data using industry-relevant tools.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Science
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - COMPUTER SCIENCE

Formerly Statement

Formerly Statement

(Formerly CIS 064H.)

Course Justification

Course Justification

This course is part of the Database Development Practitioner Certificate and is UC and CSU transferable. An introduction to the R programming language will be provided, which is a free software environment for statistical computing and graphics and is widely used among statisticians and data miners for developing statistical software and data analysis.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course supports diversity, equity, and inclusion by providing students with equitable access to data analytics skills using the R programming language. Instruction incorporates multiple learning modalities, including lectures, demonstrations, collaborative problem solving, and project-based learning, to support students with diverse learning backgrounds and levels of programming experience. Students work individually and in teams to analyze and visualize real-world datasets, encouraging inclusive participation and the exploration of diverse perspectives represented in data. The course also introduces consideration of data ethics, bias, and representation in datasets where appropriate. The course emphasizes accessible tools, collaborative learning, and practical applications to support student success in data science and analytics fields.

Course Development Options

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

Repeat Limit	Course Prior To College Level	• Pass/No Pass Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Applied Artificial Intelligence	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Applied Artificial Intelligence	Associate in Science (A.S.) Degree	Fall 2026
Database Development Practitioner	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Database Development Practitioner	Associate in Arts (A.A.) Degree	Fall 2026
Database Development Practitioner	Certificate of Achievement-Advanced (COA-A)	Fall 2025 to Fall 2026
Database Development Practitioner	Certificate of Achievement-Advanced (COA-A)	Fall 2026

Transferability & Gen. Ed. Options	
Course General Education Status (CB25)	
Y	
Transferability (CB05)	Transferability Status
Transferable to both UC and CSU	Approved

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4.5
Maximum Credit Units	4.5
Total Course In-Class (Contact) Hours	66
Total Course Out-of-Class Hours	96
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

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
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	18
NA	0
Total	66

Course Out-of-Class Hours

Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications	
Methods of Instruction	
Methods of Instruction	Methods of Instruction
Methods of Instruction	Lecture supported by visual aids and demonstrations of R programming concepts and data analysis techniques. Discussion of assigned readings related to data analytics, statistical methods, and programming practices. In-class problem solving activities involving coding exercises and data analysis scenarios. Collaborative learning and small-group exercises that support peer interaction and shared problem solving. Collaborative projects that allow students to explore datasets, apply analytical techniques, and present findings.
Assignments	
	A. Reading - Required readings from textbooks and class notes covering R programming concepts, data analysis techniques, and data visualization principles. B. Programming Assignments - 7–10 programming homework assignments focused on developing R programming skills, data manipulation, and analytical techniques. C. Group Project - Collaborative project involving data exploration, analysis, and visualization of assigned datasets using R, with emphasis on interpretation and presentation of results.
Methods of Evaluation	Methods of Evaluation
Methods of Evaluation	A. Midterm Examinations - One or two midterm exams assessing understanding of R programming concepts, coding skills, and data analysis techniques. B. Final Examination - Comprehensive final exam evaluating mastery of data exploration, analysis, and visualization

principles using R.

- C. Programming Assignments and Project Evaluation - Evaluation of programming assignments and group project based on correctness, documentation, code quality, and application of analytical methods. Rubrics or structured grading criteria are used where appropriate to further support transparency.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Access to a computer lab with RStudio

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Wickham, Hadley and Grolemund, Garrett	R for Data Science: Import, Tidy, Transform, Visualize, and Model Data	O'Reilly	: 1st Edition, 2022	Freely available online as an open-access resource.
Campbell, Matthew	Learn RStudio IDE: Quick, Effective, and Productive Data Science	Apress	1st Edition, 2019	1484245105

Suggested Reading List

No Value

Learning Outcomes

Course Objectives

Describe R basics

Exhibit understanding of R data objects.

Illustrate basic data transformation concepts.

Demonstrate extracting data from various sources.

Perform data manipulations to enable analysis.

Analyze data to derive patterns and hypotheses.

Design data visualizations to demonstrate analyses.

CSLOs

Design, implement and debug R programs to process data from various sources for data analysis.

Expected SLO Performance: 0.0

Use R-graphics to display and visualize data.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Describe R basics
 - 1. What is R?
 - 2. Introduction to R and RStudio
 - 3. Installing and using R packages
 - 4. Working with R workspaces
- B. Exhibit understanding of R data objects.
 - 1. Vectors
 - 2. Matrices
 - 3. Data Frames
 - 4. Lists
 - 5. Local data import/export
- C. Illustrate basic data transformation concepts.
 - 1. Variables
 - 2. Character and String Manipulation
 - 3. Dates and Timestamps
 - 4. Regular Expressions
 - 5. Control Statements
 - 6. Functions
- D. Demonstrate extracting data from various sources.
 - 1. Web data capture
 - 2. API data sources
 - 3. Connecting to external data sources
 - 4. Data in single and distributed environments
- E. Perform data manipulations to enable analysis.
 - 1. Using 'dplyr'
 - 2. Reshaping data
 - 3. Cleansing data
 - 4. Merging data
 - 5. Splitting data
 - 6. Conversion of data
- F. Analyze data to derive patterns and hypotheses.
 - 1. Data architecture patterns
 - 2. Correlation clustering
 - 3. Predictive analysis
 - 4. Groupwise operations
 - 5. Data redundancy
 - 6. Descriptive statistics
 - 7. Regression
 - 8. Hypothesis testing

- G. Design data visualizations to demonstrate analyses.
1. Core concepts of data graphics and visualization
 2. R graphics engines
 - a. Base
 - b. Grid
 - c. Lattice
 - d. ggplot2
 3. Customizing graphics with 'ggplot2'
 - a. Titles
 - b. Coordinate systems
 - c. Scales
 - d. Themes
 - e. Axis labels
 - f. Legends

Lab Outline

- A. Identify data types and data structures
- B. Apply flow control and looping constructs
- C. Create and call functions
- D. Use the split/apply/combine pattern
- E. Manipulate character data and regular expressions
- F. Apply regular expressions and web scraping techniques
- G. Reshape data and access databases
- H. Perform simulation techniques
 - I. Optimize computational solutions
- J. Analyze data and evaluate predictive models

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

CIS D022A or CIS D036A or CIS D040.

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

No Value

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

No Value

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Describe R basics

Objective 2: Develop analytical ideas and topics for essays.

Describe R basics Exhibit understanding of R data objects.

Objective 3: Compose and support thesis statements for analytical essays.

Exhibit understanding of R data objects. Illustrate basic data transformation concepts.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

Illustrate basic data transformation concepts. Demonstrate extracting data from various sources.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

Perform data manipulations to enable analysis. Analyze data to derive patterns and hypotheses.

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Demonstrate extracting data from various sources. Perform data manipulations to enable analysis.

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Perform data manipulations to enable analysis. Analyze data to derive patterns and hypotheses. Design data visualizations to demonstrate analyses.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/10/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References reflect diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - Added the following to DEI Statement - 'The course also introduces consideration of data ethics, bias, and representation in datasets where appropriate.'
4/10/2026	Specifications	Assignments	Suggested	Thanks for this list of assignments. Do any assignments do one or more of the following: (1) Encourage students to connect course content to their own life, background, and experiences; (2) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - Added the following to DEI Statement - 'The course also introduces consideration of data ethics, bias, and representation in datasets where appropriate.'

4/10/2026 Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - added the following to Eval methods - "Rubrics or structured grading criteria are used where appropriate to further support transparency."
4/10/2026 Outline	Course Outline	Suggested	This may not be appropriate given the highly technical nature of this course, but if appropriate, consider minor revisions to provide space to reflect on diverse perspectives and/or experiences, inequities, racism, or other barriers to inclusion specific to the course subject if appropriate. If not appropriate, that's fine, just let me know in the initiator response box.	Y - Given the technical nature of this course, extensive revisions to the course outline are not necessary. However, where appropriate, topics related to data analysis and interpretation may include consideration of data ethics, bias in datasets, and responsible use of statistical methods. These elements align with real-world data science practices and are reflected in the DEI statement.

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

No Value

Stage 6: Content Review Matrix Liaison

No Value

Stage 7: Dean of Online Learning

No Value

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

CIS 044H

Course Status

Non-substantial

Course Characteristics

- CTE

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

04/30/2019

Curriculum Office Notes

- Course number change only appr. 10/26/21 (effect. F22).-mkct
- Tech. change to req/adv to add noncredit ESL course, appr. 6/15/21 (effect. F22).-mkct
- Requisite change appr. 1/17/23 (effect. F23).-cc
- CCN requisite changes appr. 9/23/24 (effect. F25). -mc

CISD344H : R Programming

General Information

Faculty Initiator:	Sukhjot Singh
Attachments:	Online_CIS_344H_2027F.pdf Hybrid_CIS_344H_2027F.pdf ReqAdv_G_CIS_344H_2027F.pdf
Course ID (CB01A and CB01B) :	CISD344H
Short Course Title:	R PROGRAMMING
Course Title (CB02) :	R Programming
Department:	CIS - Computer Sci and Info Systems
Effective Term:	Fall 2027
TOP Code (CB03) :	(0707.20) *Database Design and Administration
CIP Code:	(11.0802) Data Modeling/Warehousing and Database Administration.
SAM Priority Code (CB09) :	C - Clearly Occupational
Distance Education Approved:	Yes
Course Control Number:	No value
Curriculum Committee Approval Date:	10/03/2023
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	This course is an introduction to the R programming language and its applications in data analytics. Topics include data objects, data cleansing, merging and sorting, statistical analysis, data visualization, and working with RStudio. Students apply programming and analytical techniques to explore, analyze, and visualize data using industry-relevant tools.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Computer Science
Discipline 2:	No value
Discipline 3:	No value
FSA:	FHDA FSA - COMPUTER SCIENCE

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This is a noncredit enhanced course that belongs on the certificate of completion in Database Development Practitioner. An introduction to the R programming language will be provided, which is a free software environment for statistical computing and graphics and is widely used among statisticians and data miners for developing statistical software and data analysis.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

Yes

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

This course supports diversity, equity, and inclusion by providing students with equitable access to data analytics skills using the R programming language. Instruction incorporates multiple learning modalities, including lectures, demonstrations, collaborative problem solving, and project-based learning, to support students with diverse learning backgrounds and levels of programming experience. Students work individually and in teams to analyze and visualize real-world datasets, encouraging inclusive participation and the exploration of diverse perspectives represented in data. The course also introduces consideration of data ethics, bias, and representation in datasets where appropriate. The course emphasizes accessible tools, collaborative learning, and practical applications to support student success in data science and analytics fields.

Course Development Options

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

Repeat Limit 99	Course Prior To College Level Not applicable.	• Pass/No Pass Repeatability Statement (No limit on student re-enrollment for 0 unit courses.)
Course Support Status (CB26) Course is not a support course		

Associated Programs

☒ Course is part of a program

Associated Program	Award Type	Active
Database Science Practitioner	Certificate of Completion	Fall 2025 to Fall 2026
Database Science Practitioner	Certificate of Completion	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status (CB25)
Y

Transferability (CB05) Not transferable	Transferability Status Not transferable
---	---

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?
No

If yes, identify the lower-division UC course and campus.
No Value

Will the course fulfill a UC/CSU lower-division major requirement?
No

If yes, identify the UC/CSU campus, course and major.
No Value

Units and Hours

Summary

Minimum Credit Units

0

Maximum Credit Units

0

Total Course In-Class (Contact) Hours

66

Total Course Out-of-Class Hours

96

Total Student Learning Hours

66

Credit / Non-Credit Options

Course Credit Status (CB04)

Non-Credit

Course Non Credit Category (CB22)

Workforce Preparation.

Course Classification Code (CB11)

Workforce Preparation Enhanced Funding.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	1.5	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	18
NA	0
Total	66
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture supported by visual aids and demonstrations of R programming concepts and data analysis techniques.
Discussion of assigned readings related to data analytics, statistical methods, and programming practices.
In-class problem solving activities involving coding exercises and data analysis scenarios.
Collaborative learning and small-group exercises that support peer interaction and shared problem solving.
Collaborative projects that allow students to explore datasets, apply analytical techniques, and present findings.

Assignments

- Reading - Required readings from textbooks and class notes covering R programming concepts, data analysis techniques, and data visualization principles.
- Programming Assignments - 7–10 programming homework assignments focused on developing R programming skills, data manipulation, and analytical techniques.
- Group Project - Collaborative project involving data exploration, analysis, and visualization of assigned datasets using R, with emphasis on interpretation and presentation of results.

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- Midterm Examinations - One or two midterm exams assessing understanding of R programming concepts, coding skills, and data analysis techniques.
- Final Examination - Comprehensive final exam evaluating mastery of data exploration, analysis, and visualization principles using R.
- Programming Assignments and Project Evaluation - Evaluation of programming assignments and group project based on correctness, documentation, code quality, and application of analytical methods. Rubrics or structured grading criteria are used where appropriate to further support transparency.

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- Access to a computer lab with RStudio

Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Wickham, Hadley and Grolemund, Garrett	R for Data Science: Import, Tidy, Transform, Visualize, and Model Data	O'Reilly	1st Edition , 2022	Freely available online as an open-access resource.
Campbell, Matthew	RStudio IDE: Quick, Effective, and Productive Data Science	Apress	1st Edition, 2019	1484245105
Suggested Reading List				
No Value				

Learning Outcomes	
Course Objectives	
Describe R basics	
Exhibit understanding of R data objects.	
Illustrate basic data transformation concepts.	
Demonstrate extracting data from various sources.	
Perform data manipulations to enable analysis.	
Analyze data to derive patterns and hypotheses.	
Design data visualizations to demonstrate analyses.	
CSLOs	
Design, implement and debug R programs to process data from various sources for data analysis.	Expected SLO Performance: 0.0
Use R-graphics to display and visualize data.	Expected SLO Performance: 0.0

Outline

Course Outline

- A. Describe R basics
 - 1. What is R?
 - 2. Introduction to R and RStudio
 - 3. Installing and using R packages
 - 4. Working with R workspaces
- B. Exhibit understanding of R data objects.
 - 1. Vectors
 - 2. Matrices
 - 3. Data Frames
 - 4. Lists
 - 5. Local data import/export
- C. Illustrate basic data transformation concepts.
 - 1. Variables
 - 2. Character and String Manipulation
 - 3. Dates and Timestamps
 - 4. Regular Expressions
 - 5. Control Statements
 - 6. Functions
- D. Demonstrate extracting data from various sources.
 - 1. Web data capture
 - 2. API data sources
 - 3. Connecting to external data sources
 - 4. Data in single and distributed environments
- E. Perform data manipulations to enable analysis.
 - 1. Using 'dplyr'
 - 2. Reshaping data
 - 3. Cleansing data
 - 4. Merging data
 - 5. Splitting data
 - 6. Conversion of data
- F. Analyze data to derive patterns and hypotheses.
 - 1. Data architecture patterns
 - 2. Correlation clustering
 - 3. Predictive analysis
 - 4. Groupwise operations
 - 5. Data redundancy
 - 6. Descriptive statistics
 - 7. Regression
 - 8. Hypothesis testing
- G. Design data visualizations to demonstrate analyses.
 - 1. Core concepts of data graphics and visualization
 - 2. R graphics engines
 - a. Base
 - b. Grid
 - c. Lattice
 - d. ggplot2
 - 3. Customizing graphics with 'ggplot2'
 - a. Titles
 - b. Coordinate systems
 - c. Scales
 - d. Themes
 - e. Axis labels
 - f. Legends

Lab Outline

- A. Identify data types and data structures

- B. Apply flow control and looping constructs
- C. Create and call functions
- D. Use the split/apply/combine pattern
- E. Manipulate character data and regular expressions
- F. Apply regular expressions and web scraping techniques
- G. Reshape data and access databases
- H. Perform simulation techniques
- I. Optimize computational solutions
- J. Analyze data and evaluate predictive models

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value
Advisory(ies): ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for ENGL C1000 or ENGL C1000H or ESL D005.
Advisory(ies) - Other: CIS D022A or CIS D036A or CIS D040.
Limitation(s) on Enrollment: No Value
Limitation(s) on Enrollment - Other: No Value
Entrance Skills(s): No Value
Entrance Skill(s) - Other: No Value
General Course Statement(s): NONCREDIT: (This is a noncredit enhanced, CTE course.)
General Course Statement(s) - Other: No Value

A-Matrix Form
EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why. No Value
Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse. No Value
Objective 2: Compose essays drawn from personal experience and assigned texts. No Value
Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

No Value

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

Describe R basics

Objective 2: Develop analytical ideas and topics for essays.

Describe R basics Exhibit understanding of R data objects.

Objective 3: Compose and support thesis statements for analytical essays.

Exhibit understanding of R data objects. Illustrate basic data transformation concepts.

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

Illustrate basic data transformation concepts. Demonstrate extracting data from various sources.

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

Perform data manipulations to enable analysis. Analyze data to derive patterns and hypotheses.

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

Demonstrate extracting data from various sources. Perform data manipulations to enable analysis.

Objective 9: Demonstrate appropriate grammar usage and mechanics.

Perform data manipulations to enable analysis. Analyze data to derive patterns and hypotheses.

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value
Objective 9: Explore arithmetic sequences and series.
No Value
Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.
No Value

F-Matrix Form
Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.
No Value
Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.
No Value
Objective 3: Apply the order of operations to evaluate signed numerical expressions.
No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

No Value

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/10/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References reflect diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - Added the following to DEI Statement - 'The course also introduces consideration of data ethics, bias, and representation in datasets where appropriate.'
4/10/2026	Specifications	Assignments	Suggested	Thanks for this list of assignments. Do any assignments do one or more of the following: (1) Encourage students to connect course content to their own life, background, and experiences; (2) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - Added the following to DEI Statement - 'The course also introduces consideration of data ethics, bias, and representation in datasets where appropriate.'
4/10/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If yes, consider noting this for the relevant assignment. If not appropriate for your COR, that's fine, just let me know in the Initiator response box.	Y - added the following to Eval methods - "Rubrics or structured grading criteria are used where appropriate to further support transparency."

4/10/2026 Outline	Course Outline Suggested	This may not be appropriate given the highly technical nature of this course, but if appropriate, consider minor revisions to provide space to reflect on diverse perspectives and/or experiences, inequities, racism, or other barriers to inclusion specific to the course subject if appropriate. If not appropriate, that's fine, just let me know in the initiator response box. Y - Given the technical nature of this course, extensive revisions to the course outline are not necessary. However, where appropriate, topics related to data analysis and interpretation may include consideration of data ethics, bias in datasets, and responsible use of statistical methods. These elements align with real-world data science practices and are reflected in the DEI statement.
Stage 4: Articulation Officer		
No Value		
Stage 5: De Anza General Education		
No Value		
Stage 6: Content Review Matrix Liaison		
No Value		
Stage 7: Dean of Online Learning		
No Value		
Stage 8: SLO Coordinator		
No Value		
Stage 10: Curriculum Committee		
No Value		
CO		
Sort ID (00 < 10; 0 < 100)		
CIS 344H		
Course Status		
New		
Course Characteristics		
- CTE - Noncredit Enhanced		
Cross-Listed/Related Course Information		
NA		

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

10/03/2023

Hybrid Approval Date (MM/DD/YYYY)

10/03/2023

Curriculum Office Notes

- CCN requisite changes appr. 9/23/24 (effect. F25). -mc

SOCD014. : The Process of Social Research

General Information

Faculty Initiator:	Jayanti Roy
Attachments:	ReqAdv_G_SOC_14_2027F_1.pdf ReqAdv_G_SOC_14_2027F_2.pdf ReqAdv_G_SOC_14_2027F_3.pdf Hybrid_SOC_14_2027F.pdf Online_SOC_14_2027F.pdf
Course ID (CB01A and CB01B) :	SOCD014.
Short Course Title:	THE PROCESS OF SOCIAL RESEARCH
Course Title (CB02) :	The Process of Social Research
Department:	SOC - Sociology
Effective Term:	Fall 2027
TOP Code (CB03) :	(2208.00) Sociology
CIP Code:	(45.1101) Sociology.
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000553647
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	In this course, you will explore how the scientific method can be used to better understand the social world around you. Together, we will examine how to ask meaningful research questions, define and investigate social issues, and make connections between theory and real-world data. You will develop practical skills in both quantitative and qualitative research methods, including how to collect, analyze, and interpret data. Along the way, you will also learn how to approach research ethically and thoughtfully. By the end of the course, you will be equipped with the knowledge and tools to critically evaluate social research and conduct your own investigations with confidence.
Course Type (CB27) :	Lower Division
Mode of Delivery:	- Online - Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

- Discipline 1:**
 - Sociology
- Discipline 2:**
 - Anthropology
- Discipline 3:** No value
- FSA:**
 - FHDA FSA - SOCIOLOGY

Formerly Statement

Formerly Statement
(Formerly SOC D064.)

Course Justification

Course Justification

This course is a major preparation requirement in the discipline of Sociology for at least one CSU or UC. This course meets a general education requirement for De Anza and Cal-GETC. It belongs on the Sociology AA-T degree and was developed to meet a requirement on the Sociology Transfer Model Curriculum. This course provides an overview introduction to sociological research methods, which is a standard part of lower division curriculum in Sociology.

Stand-Alone Statement

Stand-Alone Statement
No Value

Course Philosophy

Course Philosophy

This course has a hands-on approach and will ask students to use the tools they learn to conduct original applied research.

CTE Course

Is this a CTE (Career Technical Education) course?
No

Honors/Non-honors Course

Is this an honors/non-honors course?
No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

No

Foothill Faculty Consultation Name

No Value

Foothill Course ID

No Value

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☐ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☐ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The texts used in this course have elements of DEI integrated paying attention to the researcher's assumptions, terms of social class, race and gender. DEI is also present in the assignments, for example, assigned reading from texts and other assigned references. Instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate. The writing assignments provides choices in how students demonstrate proficiency and encourage students to connect course content to their own life, background, and experiences.

Course Development Options

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
- Pass/No Pass

Repeat Limit

0

Course Prior To College Level

Not applicable.

Repeatability Statement

No value

Course Support Status (CB26)

Course is not a support course

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Anthropology for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2025
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Social Justice Studies: General Studies for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2025
Social Justice Studies: General Studies for Transfer (In Development)	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026
Sociology for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2025
Sociology for Transfer (In Development)	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026

Transferability & Gen. Ed. Options					
Course General Education Status (CB25)					
Y					
Transferability (CB05)			Transferability Status		
Transferable to both UC and CSU			Approved		
De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G4X	De Anza GE Area 4 - Social and Behavioral Sciences	Approved	No value	No value	No - defined.

Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA4X	Cal-GETC Area 4 - Social and Behavioral Sciences	Approved	No value	No value	No - defined.

C-ID	Area(s)	Status	Approval Date	End Date	-
SOCI	Sociology	Approved	No value	No value	C-ID SOCI 120

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units	4
Maximum Credit Units	4
Total Course In-Class (Contact) Hours	48
Total Course Out-of-Class Hours	96
Total Student Learning Hours	144

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

In Class	Out of Class	Course Student Hours	Course Duration (Weeks)	12
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Lecture Hours	4	8	Hours per unit divisor	36
Laboratory Hours	0	0	Course In-Class (Contact) Hours	
NA Hours	0	0	Lecture	48
			Laboratory	0
			NA	0
			Total	48
			Course Out-of-Class Hours	
			Lecture	96
			Laboratory	0
			NA	0
			Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP
No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
In-class exploration of Internet sites
Homework and extended projects
Collaborative learning and small group exercises
Collaborative projects
Field observation and field trips

Assignments

A. Reading

1. Assigned reading from texts and other assigned references.
2. Suggested supplemental readings.

B. Writing in the form of an applied research or analytical paper requiring data collection and analysis or combination of short applied analytical writing assignments requiring data collection and analysis.

C. Oral Communication

1. Preparation of course material for small group discussions of assigned topics
2. Preparation for class presentation of assigned topics

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Oral and written homework on designated topics, evaluated based on demonstration of mastery of course objectives.
- B. Tests and final exam including objective, short-answer and essay questions, evaluated based on demonstration of mastery of course objectives
- C. Participation in and contribution toward classroom discussions and topic debates, evaluated based on demonstration of mastery of course objectives
- D. Research or analytical paper and/or series of written analytical assignments requiring data collection and analysis, evaluated based on demonstration of mastery of course objectives

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities:

- None

Examples of Primary Texts and References

Author	Title	Publisher	Date/Edition	ISBN
Schutt, R.K.	Investigating the Social World	Sage	September 2022, 10th Edition	9781071817087
Seale, C.	Researching Society and Culture	Sage	5th edition, 2025	9781529628982

Chambliss, D. & R.K. Schutt.	Making Sense of the Social World	Sage	7th Edition, August 2024	9781071871294
Lareau, A	Listening to People	University of Chicago Press	, 1st Edition, 2021	978-0226806433
Bhattacharjee, Anol	Social Science Research: Principles, Methods and Practices (Revised edition)	Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License	February 1, 2019	https://doi.org/https://doi.org/10.26192/q7w89
Suggested Reading List No Value				

Learning Outcomes
Course Objectives
Evaluate the challenges and benefits of using the scientific method to understand social phenomena.
Examine the motivations for social research and the selection of research questions and design.
Examine the relationship between theory, hypotheses, concepts and data.
Evaluate and apply the criteria for causal and correlative relationships.
Evaluate and apply the criteria for generalizability, reliability and validity.
Evaluate the strengths and weakness of quantitative approaches to data collection and analysis.
Evaluate the strengths and weakness of qualitative approaches to data collection and analysis.
Explore the ethical impacts of social research on relevant populations.
Explore approaches to communicating social research findings to various audiences and the strengths and weaknesses of these approaches.
CSLOs Distinguish the sociological perspective from other sciences, including its methods, theories and empathetic standpoint. Expected SLO Performance: 0.0

Outline

Course Outline

- A. Evaluate the challenges and benefits of using the scientific method to understand social phenomena.
 - 1. Epistemology and multiple ways of knowing (including indigenous, multicultural, postcolonial and feminist epistemologies)
 - 2. Basic steps and assumptions of the scientific method
 - 3. Differences between the social sciences and physical/biological sciences
 - 4. The concept of probabilistic versus deterministic conclusions
 - 5. Sources of error in social science research
- B. Examine the motivations for social research and the selection of research questions and design.
 - 1. Exploration
 - 2. Description
 - 3. Explanation
 - 4. Choosing units of analysis
 - 5. Cross-sectional versus longitudinal designs
 - 6. The relationship of research question to data collection strategy
- C. Examine the relationship between theory, hypotheses, concepts and data.
 - 1. The difference between inductive and deductive approaches
 - 2. Theoretical approaches within sociology
 - 3. The difference between theory and hypotheses
 - 4. Concepts and conceptualization
 - 5. Operationalization, measurement and variables
 - 6. Modeling, estimates and simulations
- D. Evaluate and apply the criteria for causal and correlative relationships.
 - 1. The criteria for correlation
 - 2. The criteria for causation and causal validity
 - 3. Independent and dependent variables
 - 4. Necessary and sufficient causes
 - 5. Idiographic explanations
- E. Evaluate and apply the criteria for generalizability, reliability and validity.
 - 1. Types of generalizability—Sample generalizability, cross-population generalizability and theoretical generalizability
 - 2. Sampling and its relationship to generalizability
 - 3. Types of reliability—test/retest, interitem, alternate forms, interobserver
 - 4. Types of measurement validity—face, content, criterion, construct
- F. Evaluate the strengths and weakness of quantitative approaches to data collection and analysis.
 - 1. Experiments and types of experimental design
 - 2. Survey construction and administration
 - 3. Content analysis
 - 4. Use of existing and secondary data sources
 - 5. Introduction to statistical analysis for description and explanation
 - 6. Triangulation
- G. Evaluate the strengths and weakness of qualitative approaches to data collection and analysis.
 - 1. Ethnography, direct observation and participant observation
 - 2. In-depth interviewing and oral history
 - 3. Focus group interviews
 - 4. Comparative historical research
 - 5. Visual sociology
 - 6. Introduction to qualitative analysis approaches
 - 7. Triangulation
- H. Explore the ethical impacts of social research on relevant populations.
 - 1. Principles of ethical research procedures
 - 2. Principles of ethical uses of research and communication of research findings
 - 3. Common ethical quandaries across different research methods
 - 4. Vulnerable populations
 - 5. Institutional review boards and human subjects review
 - 6. The politics of social research, including evaluation research
 - 7. Feminist and multicultural critiques of research ethics and politics
- I. Explore approaches to communicating social research findings to various audiences and the strengths and weaknesses of these approaches.
 - 1. Audiences for social research
 - 2. How to display data in visual and written forms
 - 3. Peer reviewed journal articles versus research reports
 - 4. The challenges of communicating research to the press and the public
 - 5. Ethical issues for research subjects and constituencies
 - 6. Applied, evaluation, community-based and action research

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv**Prerequisite(s):**

SOC D001.

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

PSYC D015., SOC D015., STAT C1000 or STAT C1000H

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Assignment: Research or analytical paper and/or series of written analytical assignments requiring data collection and analysis, evaluated based on demonstration of mastery of course objectives

Objective 2: Compose essays drawn from personal experience and assigned texts.

No Value

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

Assignment: Oral and written homework on designated topics, evaluated based on demonstration of mastery of course objectives

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Assignment: Participation in and contribution toward classroom discussions and topic debates, evaluated based on demonstration of mastery of course objectives

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value

Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.

No Value

Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.

No Value

D-Matrix Form

Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.

No Value

Objective 2: Investigate the use of mathematics in real world.

No Value

Objective 3: Explore functions.

No Value

Objective 4: Develop linear function models.

No Value

Objective 5: Use systems of two linear equations to solve real world problems.

No Value

Objective 6: Use linear inequalities in one variable to solve real world problems.

No Value

Objective 7: Examine exponential expressions and develop exponential function models.

No Value

Objective 8: Examine logarithmic expressions and develop logarithmic function models.

No Value

Objective 9: Develop quadratic function models to solve problems.

No Value

Objective 10: Investigate the characteristics of rational expressions.

No Value

Objective 11: Develop skills to work with radical expressions.

No Value

E-Matrix Form

Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.

No Value

Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.

No Value

Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.

No Value

Objective 4: Develop linear function models to solve problems.

No Value

Objective 5: Use systems of two linear equations to solve real-world problems.

No Value

Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.

No Value

Objective 7: Develop quadratic function models to solve problems.

No Value

Objective 8: Use inequalities to solve real world problems.

No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Criteria 1: Examine the motivations for social research and the selection of research questions and design. (From Course Outline B)
Exploration Description Explanation Choosing units of analysis Cross-sectional versus longitudinal designs The relationship of research question to data collection strategy

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Criteria 2: Oral and written homework on designated topics, evaluated based on demonstration of mastery of course objectives (Methods of Evaluation) Oral Communication --Preparation of course material for small group discussions of assigned topics (Assignments)

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Assignment B: Writing in the form of an applied research or analytical paper requiring data collection and analysis or combination of short applied analytical writing assignments requiring data collection and analysis

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Outline A: Evaluate the challenges and benefits of using the scientific method to understand social phenomena including epistemologies and multiple ways of knowing (including indigenous, multicultural, postcolonial and feminist epistemologies)

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Criteria 5: Explore the ethical impacts of social research on relevant populations.: Vulnerable populations, Feminist and multicultural critiques of research ethics and politics (Outline)

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Criteria 6: Evaluate the challenges and benefits of using the scientific method to understand social phenomena: Epistemology and multiple ways of knowing (including indigenous, multicultural, postcolonial and feminist epistemologies) (Course Outline)

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
03/23/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to use welcoming, student-centered language and minimize the use of impersonal, course-centered language, and to describe the knowledge, skills, and abilities students will gain upon the completion of the course Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y
03/23/2026	Specifications	Examples of Primary Texts and References	Required	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y
03/23/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.), and do they reflect diverse authors, voices, and perspectives, and discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y

03/23/2026	Specifications	Assignments	Suggested	Do assignments do one or more of the following: (1) Provides choices in how students demonstrate proficiency; (2) Encourage students to connect course content to their own life, background, and experiences; (3) One or more course assignments provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, let me know in the Initiator response box.	Y
03/23/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.	Y

Stage 4: Articulation Officer

No Value

Stage 5: De Anza General Education

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/16/26	De Anza GE Form	Criteria 2, 5, and 6	Required	Please provide responses for criteria 2, 5, and 6 for the De Anza GE Matrix	Y

Stage 6: Content Review Matrix Liaison

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/27/26	Basic Course Information	Attachments		Please complete and upload a Matrix G for your SOC 1 pre-requisite and for your PSYCH 15, SOC 15, STAT 1000 or STAT 1000H advisory	Y
5/2/26	Matrix G		Required	Please Remove Matrix G for ENGL 100 advisory as this is covered by your Matrix A	Y

Stage 7: Dean of Online Learning

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
5/5/26	Basic Course Information	Mode of Delivery	Required	Please include Online in your mode of delivery since you attached an Online Delivery form as an attachment.	Y

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO

Sort ID (00 < 10; 0 < 100)

SOC 014

Course Status

Non-substantial

Course Characteristics

- NA

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

11/03/2020

Curriculum Office Notes

- (mc-changed 5-yr rev yr from 2019 to 2020 per redistribution)
- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc

SOCD020. : Social Problems

General Information

Faculty Initiator:	Jayanti Roy
Attachments:	Hybrid_SOC_20_2027F.pdf Online_SOC_20_2027F.pdf
Course ID (CB01A and CB01B) :	SOCD020.
Short Course Title:	SOCIAL PROBLEMS
Course Title (CB02) :	Social Problems
Department:	SOC - Sociology
Effective Term:	Fall 2027
TOP Code (CB03) :	(2208.00) Sociology
CIP Code:	(45.1101) Sociology.
SAM Priority Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Course Control Number:	CCC000066743
Curriculum Committee Approval Date:	Pending
Board of Trustees Approval Date:	Pending
External Review Approval Date:	09/01/2027
Course Description:	In this course, you will explore how sociologists understand and analyze today's most pressing social problems. You will learn to apply key sociological perspectives to real-world issues and examine how certain conditions come to be defined as social problems. Through discussion, reflection, and analysis, you will develop the skills to critically evaluate how individuals, communities, and institutions respond to these challenges. By the end of the course, you will be able to think sociologically about social issues, assess proposed solutions, and better understand your role in creating meaningful social change. .
Course Type (CB27) :	Lower Division
Mode of Delivery:	Hybrid
Faculty Initiator:	No value
Course Family:	Not Applicable

Faculty Requirements

Discipline 1:	Sociology
Discipline 2:	Anthropology
Discipline 3:	No value
FSA:	FHDA FSA - SOCIOLOGY

Formerly Statement

Formerly Statement

No Value

Course Justification

Course Justification

This course is a major preparation requirement in the discipline of Sociology for at least one CSU or UC. This course meets a general education requirement for De Anza and Cal-GETC. This course also fulfills a core requirement for the AA Degree for Transfer in Sociology. This course provides a focus on problems in society for students at the introductory level.

Stand-Alone Statement

Stand-Alone Statement

No Value

Course Philosophy

Course Philosophy

No Value

CTE Course

Is this a CTE (Career Technical Education) course?

No

Honors/Non-honors Course

Is this an honors/non-honors course?

No

Mirrored Credit/Noncredit Course

Is this a mirrored credit/noncredit course?

No

Cross-listed Course

Is this a cross-listed course?

No

Foothill Equivalency

Does the course have a Foothill equivalent?

Yes

Foothill Faculty Consultation Name

No Value

Foothill Course ID

SOC F020.

DEI Review

Please check all areas in the COR that address DEI.

- | | |
|---|---|
| ☒ Basic Course Information - Course Description | ☒ Specifications - Methods of Instruction |
| ☒ Specifications - Assignments | ☒ Specifications - Methods of Evaluation |
| ☒ Specifications - Examples of Primary Texts and References | ☒ Outline - Course Outline |

Please summarize the ways in which your course includes DEI.

The Course Description states: An exploration of sociological perspectives on contemporary social problems. The social processes through which issues come to be viewed as social problems and the dynamics through which groups attempt to respond to and solve these problems will be examined. The Course Outline of Record, B requires students to analyze and compare the basic perspectives regarding social problems in the discipline of sociology: Conflict theory and critical theory and their emphasis on change, power, and domination in analyzing how class, race, and gender reproduce political, economic, and social inequality. One of the assignments require students to write a research essay involving critical analysis of an assigned social problem. The books for the course have diverse authors, voices, and perspectives.) Assignments encourage students to connect course content to their own life, background, and experiences and provide them with the opportunity for self-reflection. For evaluation, instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate.

Course Development Options

Basic Skill Status (CB08)

Course Special Class Status (CB13)

Grade Options

Course is not a basic skills course.	Course is not a special class.	- Letter Grade - Pass/No Pass
Repeat Limit	Course Prior To College Level	Repeatability Statement
0	Not applicable.	No value
Course Support Status (CB26)		
Course is not a support course		

Associated Programs		
☒ Course is part of a program		
Associated Program	Award Type	Active
Cal-GETC	Certificate of Achievement-Advanced (COA-A)	Fall 2025
Cal-GETC (In Development)	Certificate of Achievement-Advanced (COA-A)	Fall 2026
Human Services (In Development)	Certificate of Achievement (COA)	Fall 2027
Law, Public Policy, and Society for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2025 to Fall 2026
Law, Public Policy, and Society for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2025 to Fall 2026
Liberal Arts (Social and Behavioral Sciences Emphasis)	Associate in Arts (A.A.) Degree	Fall 2026
Social Justice Studies: General Studies for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2025
Social Justice Studies: General Studies for Transfer (In Development)	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026

Sociology for Transfer	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2025
Sociology for Transfer (In Development)	Associate in Arts for Transfer (A.A.-T.) Degree	Fall 2026

Transferability & Gen. Ed. Options

Course General Education Status
(CB25)

Y

Transferability (CB05)

Transferable to both UC and CSU

Transferability Status

Approved

De Anza GE	Area(s)	Status	Approval Date	End Date	-
2G4X	De Anza GE Area 4 - Social and Behavioral Sciences	Approved	No value	No value	No - defined.
Cal-GETC	Area(s)	Status	Approval Date	End Date	-
CA4X	Cal-GETC Area 4 - Social and Behavioral Sciences	Approved	No value	No value	No - defined.
C-ID	Area(s)	Status	Approval Date	End Date	-
SOCI	Sociology	Approved	No value	No value	C-ID SOCI 115

UC Transferable and/or Lower-Division Major Requirement

Will the course be UC transferable?

Yes

If yes, identify the lower-division UC course and campus.

No Value

Will the course fulfill a UC/CSU lower-division major requirement?

No

If yes, identify the UC/CSU campus, course and major.

No Value

Units and Hours

Summary

Minimum Credit Units

4

Maximum Credit Units

4

Total Course In-Class (Contact) Hours

48

Total Course Out-of-Class Hours

96

Total Student Learning Hours

144

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education Status (CB10)

☐

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	4	8
Laboratory Hours	0	0
NA Hours	0	0

Course Student Hours

Course Duration (Weeks)	12
Hours per unit divisor	36
Course In-Class (Contact) Hours	
Lecture	48
Laboratory	0
NA	0
Total	48
Course Out-of-Class Hours	
Lecture	96
Laboratory	0
NA	0
Total	96

Units and Hours - Weekly Specialty Hours			
Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

SKIP

No Value

Specifications

Methods of Instruction

Methods of Instruction

Methods of Instruction

Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
In-class essays
In-class exploration of Internet sites
Quiz and examination review performed in class
Homework and extended projects
Field observation and field trips
Guest speakers
Collaborative learning and small group exercises
Collaborative projects

Assignments

A. Reading

1. Assigned readings from the text and other sources such as newspapers, magazines, and journals.
2. Assigned supplemental readings

B. Writing

1. A research essay involving critical analysis of an assigned social problem
2. Written reflections on course readings

C. Oral Communication

1. Preparation of course material for small group discussions of assigned topics
2. Oral presentations related to course projects

Methods of Evaluation

Methods of Evaluation

Methods of Evaluation

- A. Oral and written assignments with critical analysis of an assigned issue or topic using course readings evaluated based on demonstrated mastery of course objectives
- B. Midterm examinations and a final exam composed of multiple-choice and/or essay questions evaluated based on demonstrated mastery of course objectives
- C. A research paper with critical analysis of an assigned problem evaluated based on demonstrated mastery of course objectives
- D. Participation in and contribution toward classroom discussions and in-class topic debates evaluated based on demonstrated mastery of course objectives

Essential Student Materials/Essential College Facilities

Essential Student Materials:

- None

Essential College Facilities: None				
Examples of Primary Texts and References				
Author	Title	Publisher	Date/Edition	ISBN
Eitzen, S., M.B. Zinn	Social Problems	New York, NY: Pearson.	June 10, 2024	9780137941445
Best, J.	Social Problems	New York: W.W. Norton.	12/15/2024, Fifth Edition	978-1-324-10166-6
Leon-Guerrero, A	Social Problems: Community, Policy and Social Action	Thousand Oaks, CA: Sage.	2018, 6th ed.	978-1506362724
Trevino, A. J.	Investigating Social Problems	Sage	July 25, 2024, Fourth Edition	978-1071917756
Macionis, John. J	Social Problems	Pearson,	January 25, 2024, 9th Edition	9780138102708
https://asccc-oeri.org/wp-content/uploads/2021/03/SOCIAL-PROBLEMS.pdf	Social Problems: Continuity and Change	University of Minnesota Libraries Publishing	edition, 2015.	
Suggested Reading List				
No Value				

Learning Outcomes
Course Objectives
Evaluate and compare sociological methods of generating knowledge on social problems.
Analyze and compare the basic perspectives regarding social problems in the discipline of sociology

Evaluate sociological explanations in defining social problems, describing the critical differences between individualist explanations and structural approaches.

Examine some common sense beliefs and fallacies concerning social problems.

Evaluate the role of the United States in addressing global problems in modern and post-911 era.

Assess the role of social institutions as sources of social problems.

Evaluate the role and influence of cultural values and belief systems regarding the causes of social problems

Compare and contrast the central issues of class, race, and gender and age as sources of division, inequality, and injustice.

Evaluate political, cultural, economic, and technological changes as sources of tensions, stresses, and conflicts.

Examine the processes involved in attempting to solve social problems

CSLOs

Develop a sociological imagination, which is the ability to evaluate the effects of cultural, structural, historical, geographical, institutional and stratification processes on groups and individuals, including one's own experiences.

Expected SLO Performance: 0.0

Distinguish the sociological perspective from other sciences, including its methods, theories and empathetic standpoint.

Expected SLO Performance: 0.0

Outline

Course Outline

- A. Evaluate and compare sociological methods of generating knowledge on social problems.
 1. Surveys and problems of representative sampling
 2. Participant-observer method and complications of "observer effect" and problems of reliability
 3. Experimental method and the difficult of scientific control and validity
 4. Statistical analysis of official records and difficulties interpreting data accurately
- B. Analyze and compare the basic perspectives regarding social problems in the discipline of sociology
 1. Systems theory and its emphasis on stability and preservation of social systems.
 2. Conflict theory and critical theory and their emphasis on change, power, and domination in analyzing how class, race, and gender reproduce political, economic, and social inequality
 3. Symbolic interactionism and its emphasis on changing meaning systems and experiences in a social context.
 4. Feminist theory and its emphasis on the effects of patriarchal institutions, sexist socialization patterns, exploitive class systems, and gender domination.
 5. Post-structuralist theory and its emphasis on a critique of assumptions of modernity including scientific rationality, Eurocentrism, progress, technological, and bureaucratic solutions to social problems
 6. Social constructionism and its emphasis on claims-making, framing and organizational dynamics

- C. Evaluate sociological explanations in defining social problems, describing the critical differences between individualist explanations and structural approaches.
 1. Subjective judgments or awareness of social problems
 2. Social problems as public issues affecting a large number of people
 3. Role of individual responsibility and social problems
 4. Social structural patterns, such as race/class/gender stratification
 5. Empirical evidence of a social problem
- D. Examine some common sense beliefs and fallacies concerning social problems.
 1. All people agree on what constitute a social problem
 2. Social problems are abnormal
 3. Social problems are caused by "bad people"
 4. Getting the empirical information will solve social problems
 5. All people view the problems and their solutions in the same way
- E. Evaluate the role of the United States in addressing global problems in modern and post-911 era.
 1. The United states as a world superpower
 2. Poverty and inequality as possible sources for reproduction of global social problems and support of or opposition to U.S. policy in the global South
 3. The role of the U.N., U.S. unilateralism, war, and hegemony.
 4. The role of the U.S. in global economic processes contributing to poverty, under-development, and social conflict
 5. Global problems relatively independent of U.S. influence.
 6. The influence of colonialism, neocolonialism and decolonization on global social problems
- F. Assess the role of social institutions as sources of social problems.
 1. Transformation of the family as an institutions and the influence of mass media, popular culture, and peer groups.
 2. Political institutions and the interconnections between corporations, government, military, and the mass media
 3. Economic institutions and the distribution of income, jobs, wealth and power
 4. Religious institutions in age of science and technology
 5. Educational institutions in a democratic society
 6. Media institutions and their role in what issues are perceived as problematic
- G. Evaluate the role and influence of cultural values and belief systems regarding the causes of social problems
 1. Emphasis on individual achievement as opposed to public interest and civic participation
 2. Individualism and its impact on narcissism, isolation, and alienation
 3. Consumption and the neglect of environmental and health concerns
 4. The role of market systems in generating and addressing social problems
- H. Compare and contrast the central issues of class, race, and gender and age as sources of division, inequality, and injustice.
 1. Interpersonal, internalized, and institutional racism and its social and psychological effects on people of color.
 2. Social and psychological effects of patriarchy and sexism on women, men, gay, lesbian, bisexual, and transgendered people.
 3. Interpersonal and institutional age discrimination and its social and psychological effects on the elderly.
 4. Class stratification effects on the poor including increasing economic inequality
- I. Evaluate political, cultural, economic, and technological changes as sources of tensions, stresses, and conflicts.
 1. Effects of unemployment, underemployment, downsizing in the process of globalization
 2. The consequences of cultural lag with regards to science and technology
 3. Effects of replacing human beings with non-human technologies and the issue of worker control including de-skilling
- J. Examine the processes involved in attempting to solve social problems
 1. The role of interest groups and elites
 2. Comparing and contrasting the conservative, liberal, and radical political perspectives on solving social problems
 3. The role of the mass media in claims-making about social problems
 4. The role of collective action and social movements
 5. Claims-making and framing in the attempt to turn issues into social problems

Blue Form

For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.

No Value

1. Is the unit(s) change required for articulation?

No Value

2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.

No Value

3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.

No Value

Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.

No Value

Req/Adv

Prerequisite(s):

No Value

Corequisite(s):

No Value

Advisory(ies):

- ENGL C1000 or ENGL C1000H or ESL D005.

Advisory(ies) - Other:

No Value

Limitation(s) on Enrollment:

No Value

Limitation(s) on Enrollment - Other:

No Value

Entrance Skills(s):

No Value

Entrance Skill(s) - Other:

No Value

General Course Statement(s):

- (See general education pages for the requirements this course meets.)

General Course Statement(s) - Other:

No Value

A-Matrix Form

EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.

Assigned readings from the text and other sources such as newspapers, magazines, and journals.

Objective 2: Compose essays drawn from personal experience and assigned texts.

A research essay involving critical analysis of an assigned social problem

Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.

No Value

Objective 4: Create syntactically varied sentences that are free of mechanical errors.

No Value

Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.

Outline: B: Analyze and compare the basic perspectives regarding social problems in the discipline of sociology H: Compare and contrast the central issues of class, race, and gender and age as sources of division, inequality, and injustice.

B-Matrix Form

ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.

No Value

Objective 2: Develop analytical ideas and topics for essays.

No Value

Objective 3: Compose and support thesis statements for analytical essays.

No Value

Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.

No Value

Objective 5: Identify and practice writing for different audiences and purposes.

No Value

Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.

No Value

Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.

No Value

Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.

No Value

Objective 9: Demonstrate appropriate grammar usage and mechanics.

No Value

C-Matrix Form

ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.

No Value

Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.

No Value

Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.

No Value
Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.
No Value
Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.
No Value

D-Matrix Form
Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
No Value
Objective 2: Investigate the use of mathematics in real world.
No Value
Objective 3: Explore functions.
No Value
Objective 4: Develop linear function models.
No Value
Objective 5: Use systems of two linear equations to solve real world problems.
No Value
Objective 6: Use linear inequalities in one variable to solve real world problems.
No Value
Objective 7: Examine exponential expressions and develop exponential function models.
No Value
Objective 8: Examine logarithmic expressions and develop logarithmic function models.
No Value
Objective 9: Develop quadratic function models to solve problems.

No Value
Objective 10: Investigate the characteristics of rational expressions.
No Value
Objective 11: Develop skills to work with radical expressions.
No Value

E-Matrix Form
Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.
No Value
Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
No Value
Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.
No Value
Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.
No Value
Objective 4: Develop linear function models to solve problems.
No Value
Objective 5: Use systems of two linear equations to solve real-world problems.
No Value
Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.
No Value
Objective 7: Develop quadratic function models to solve problems.
No Value
Objective 8: Use inequalities to solve real world problems.
No Value

Objective 9: Explore arithmetic sequences and series.

No Value

Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

F-Matrix Form

Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.

No Value

Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.

No Value

Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.

No Value

Objective 3: Apply the order of operations to evaluate signed numerical expressions.

No Value

Objective 4: Solve problems involving operations with signed numbers.

No Value

Objective 5: Explore the characteristics and properties of real numbers.

No Value

Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.

No Value

Objective 7: Explore rates and ratios and use proportions to solve problems.

No Value

Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.

No Value

Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.

No Value

Objective 10: Solve linear equations in one variable numerically and algebraically.

No Value

Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.

No Value

Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.

No Value

G-Matrix Form

If the requisite does not fall under an A-F Matrix and is being removed, provide an explanation as to why.

No Value

If the requisite does not fall under an A-F Matrix and is being retained/added, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. Reminder that: an “OR” conjunction statement requires ONE representative G-Matrix; an “AND” conjunction statement requires a separate G-Matrix for EACH course.

No Value

H-Matrix Form

Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc... list the prerequisite(s) to participate in the program.

No Value

Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc... list the prerequisite(s) to participate in the cohort.

No Value

Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.

No Value

Objective 4: For Requirements based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills.

No Value

Objective 5: For Entrance Skills that are necessary for taking the course, describe the specific skills and the reason they are necessary for this course. Also describe how students will meet those skills.

No Value

Objective 6: For other Limitations on Enrollment not covered above, indicate the limitation on enrollment and the reason it is necessary for this course. Also describe how students will be able to meet the requirement.

No Value

De Anza GE Form

Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Methods of Evaluation: A research paper with critical analysis of an assigned problem evaluated based on demonstrated mastery of course objectives

Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Methods of Evaluation: Oral and written assignments with critical analysis of an assigned issue or topic using course readings evaluated based on demonstrated mastery of course objectives. Participation in and contribution toward classroom discussions and in-class topic debates evaluated based on demonstrated mastery of course objectives (Methods of Evaluation)

Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline: Analyze and compare the basic perspectives regarding social problems in the discipline of sociology

Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Course Outline: Analyze and compare the basic perspectives regarding social problems in the discipline of sociology: Conflict theory and critical theory and their emphasis on change, power, and domination in analyzing how class, race, and gender reproduce political, economic, and social inequality

Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Analyze and compare the basic perspectives regarding social problems in the discipline of sociology: Conflict theory and critical theory and their emphasis on change, power, and domination in analyzing how class, race, and gender reproduce political, economic, and social inequality

Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)

Analyze and compare the basic perspectives regarding social problems in the discipline of sociology: Post-structuralist theory and its emphasis on a critique of assumptions of modernity including scientific rationality, Eurocentrism, progress, technological, and bureaucratic solutions to social problems

Comments

Stage 2: Department Chair

No Value

Stage 3: DEI

Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
3/26/2026	Basic Course Information	Course Description	Suggested	Consider minor revisions to use welcoming, student-centered language and minimize the use of impersonal, course-centered language, and to describe the knowledge, skills, and abilities students will gain upon the completion of the course	Y
3/26/2026	Specifications	Examples of Primary Texts and References	Required	Thanks for providing this example of primary texts and references. Are there representative OER options? Title 5 requirements ask that faculty check to see if there is a representative (appropriate) OER textbook, and if so, to include it if possible. If there are no representative OER options, consider zero textbook cost (ZTC) options or otherwise cost conscious options. Textbooks are considered low cost at De Anza if they are under \$50.00. If there is no representative OER textbook, please let me know in the initiator response box. Please also let me know in the initiator response box if your textbook is low cost, and consider adding this information to the DEI Box if appropriate. This will satisfy the required component of this edit.	Y
3/26/2026	Specifications	Examples of Primary Texts and References	Suggested	Do Examples of Primary Texts and References meet universal design course standards (accessible and inclusive language, explanations of technical terms, etc.) and/or diverse authors, voices, and perspectives, and/or discuss current debates in the field that are relevant to students? If so, let me know in the Initiator response box, and consider adding this to the DEI statement.	Y
3/26/2026	Specifications	Assignments	Suggested	Do assignments do one or more of the following: (1) Encourage students to connect course content to their own life, background, and experiences; (2) Provide students the opportunity to revise their work based on instructor feedback, peer feedback, or self-reflection. If yes, consider noting this for the relevant assignment. If not appropriate, let me know in the Initiator response box.	Y
3/26/2026	Specifications	Methods of Evaluation	Suggested	For any evaluation methods, do instructors provide examples of strong and/or successful assignments to clarify expectations for all students when possible and appropriate? If yes, consider noting this for the relevant evaluation method. If not appropriate, let me know in the initiator response box.	Y
Stage 4: Articulation Officer					
No Value					
Stage 5: De Anza General Education					
Date	Tab	Part - Field	Type of Edit	Edit	Initiator - Indicate "Y" When Completed or Initiator's Response
4/16/26	De Anza GE Form	Criteria 1-6	Required	Please provide responses for criteria 1-6 of the De Anza GE Matrix	Y
4/23/26	De Anza GE form	Criteria 2	Required	Please add information about collaborative exercises.	
Stage 6: Content Review Matrix Liaison					
No Value					
Stage 7: Dean of Online Learning					
No Value					

Stage 8: SLO Coordinator

No Value

Stage 10: Curriculum Committee

No Value

CO**Sort ID (00 < 10; 0 < 100)**

SOC 020

Course Status

Non-substantial

Course Characteristics

- NA

Cross-Listed/Related Course Information

- NA

Cross-Listed/Related Course ID's

No Value

DL Approval Date (MM/DD/YYYY)

No Value

Hybrid Approval Date (MM/DD/YYYY)

10/23/2018

Curriculum Office Notes

- (mc-changed 5-yr rev yr from 2019 to 2020 per redistribution)
- Requisite change appr. 1/17/23 (effect. F23).-cc
- Cal-GETC/DA GE and CCN requisite changes appr. 9/23/24 (effect. F25). -mc