DANC 78P  3 Units
DANC 78N  2 Units
DANC 78M  1 Unit

Dance II

Exploring elements of time, space, shape and motion as related to jazz dance. Body conditioning, exposure to major international influences, artists, and works. The development of a working vocabulary in significant jazz dance styles; and practice of intermediate level techniques.

DANC 38A  4 Units

Appreciation of Dance

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

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Four hours lecture (48 hours total per quarter).

A study of dance as a cultural phenomenon, form of communication, socialization, recreation, artistic expression, and entertainment. Exploring the history, traditions and works of outstanding artists.

DANC 48  2 Units

Technical Production for Dance and Theatre

(Formerly Dance 58.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Also listed as Theatre Arts 48. Students may enroll in either department, but not both, for credit.

Four hours lecture-laboratory (48 hours total per quarter). (Any combination of Dance 48 and Theatre Arts 48 may be taken up to three times as long as the topics/projects in musical drama, dance concert, etc. are different each time.) Introduction to the theoretical, technical and craft of dance and theatre production with practical experience in public presentation.

DANC 49A  1 Unit

Topics in Theory and Technique of World Dance

(Formerly Dance 50A.)

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

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours lecture-laboratory (24 hours total per quarter). (Dance 49A may be taken up to six times as long as the topics in specific dances and cultures are different each time.) Introduction to the art of world dance. Course will provide exposure to forms of dance from an international perspective. Students will learn to perform the basic skills of classical, traditional, and folk dances from various world cultures, while developing a working vocabulary of traditional dance movements. Students will attempt to gain an understanding and appreciation of the cultural and historical contexts that produced the specific dance forms.

DANC 78L  1/2 Unit
DANC 78M  1 Unit
DANC 78N  2 Units
DANC 78P  3 Units
DANC 78Q  4 Units

Prerequisite: Enrollment by audition.

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.

Two hours lecture-laboratory for each unit of credit (24 hours total for each unit of credit per quarter). (Any combination of Dance 78L-Q may be taken up to three times for credit, not to exceed 12 units, as long as the topics are different each time.) Special topics that incorporate theory and practice within the discipline of dance.

Education

EDUC 1  3 Units

Introduction to Elementary Education in a Diverse Society

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours lecture, three hours laboratory (60 hours total per quarter). Examination of principles and practices of elementary education in today’s society including observations and supervised participation in the elementary school setting.

EDUC 46  5 Units

Mathematics for Elementary Education

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

Prerequisite: Mathematics 114 with a grade of C or better, or a qualifying score on Intermediate Algebra Placement Test within the past calendar year.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Also listed as Mathematics 46. Students may enroll in either department, but not both, for credit.

Five hours lecture (60 hours total per quarter). Designed for prospective elementary and middle school teachers. An introduction to the discipline of mathematics as the use of logical, quantitative, and spatial reasoning in the abstraction, modeling, and problem solving of real-world situations. The main topics in the course include the origins of mathematics, mathematical reasoning and problem solving strategies, theory of sets, integers and integral number theory, rational numbers and proportion, real numbers and decimal notation, and measurement. Throughout the course students will experience the learning of mathematics in a way that models how they can create an active learning environment for their future students.

EDUC 56  3 Units

Understanding and Working with English Language Learners

Advisory: Completion of Child Development 106 (or Psychology 106) and 55; English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Also listed as Child Development 56. Students may enroll in either department, but not both, for credit.

Three hours lecture (36 hours total per quarter). Developmental and cultural examination of the dual language learner in early childhood programs. Theories and developmental sequence of bilingual language acquisition. Role of teacher and methods for supporting the dual language child. (This course meets NAECY Standard 4b: Teaching and learning: Using developmentally effective approaches; NBPTS Early childhood/Generalist Standard II: Equity, Fairness and Diversity; CEC Special Education Content Standards, Standard 2: Development & Characteristics of Learners; Standard 6: Language.)

Economics

ECON 1  4 Units

Principles of Macroeconomics

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

Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture (48 hours total per quarter).

An introduction to macroeconomics. Topics covered will include recessions and inflation, national income accounting, money and the banking system, money and the price level, classical macro theory, Keynesian macro theory, monetary and fiscal policy, and international trade.

ECON 2  4 Units

Principles of Microeconomics

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

Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture (48 hours total per quarter).

Examines fundamental microeconomic issues: the allocation of resources and the production function, pricing of output and factors of production; the distribution of wealth and income; consumer motivations and behavior; the nature and behavior of business firms and markets under various degrees of competition; current problems.

ECON 78J  4 Units

Economic Issues in Today’s World

(Formerly Economics 401 and 402 respectively.)

Advisory: English Writing 1A or English as a Second Language 5; Economics 1 or 2.

Three hours lecture for the three unit course (36 hours total per quarter); four hours lecture for the four unit course (48 hours total per quarter).

Basic economic analysis of current economic issues. Each topic studied is selected according to its currency and relevance to analysis. Examines fundamental economics issues within the context of current socio-political activity within the local or national economic environment. By learning the economic way of thinking, our students develop the ability to analyze complex, often ill-defined problems, and to think strategically about both intended and unintended consequences. The study of Economics develops a student’s ability to organize thoughts, analyze complex issues, and to make clear and persuasive recommendations. These skills explain why economics majors score higher on law school admissions tests than other majors, and receive among the highest starting salaries. Recent courses have involved experimental economic techniques and their application to the understanding and testing of theory; the changing European economic community; liberal, conservative and radical perspectives on current economic policy; the restructuring of the California and United States economy; public finance options for local, state and federal government units; the use of simulations and modeling in economic analysis; political economy; and, experimental and behavioral economic theories and practices.

Drama

(See Dance and/or Theatre Arts)

ECON 2 Principles of Microeconomics

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

Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture (48 hours total per quarter).

Examines fundamental microeconomic issues: the allocation of resources and the production function, pricing of output and factors of production; the distribution of wealth and income; consumer motivations and behavior; the nature and behavior of business firms and markets under various degrees of competition; current problems.

ECON 78J Economic Issues in Today’s World

(Formerly Economics 401 and 402 respectively.)

Advisory: English Writing 1A or English as a Second Language 5; Economics 1 or 2.

Three hours lecture for the three unit course (36 hours total per quarter); four hours lecture for the four unit course (48 hours total per quarter).

Basic economic analysis of current economic issues. Each topic studied is selected according to its currency and relevance to analysis. Examines fundamental economics issues within the context of current socio-political activity within the local or national economic environment. By learning the economic way of thinking, our students develop the ability to analyze complex, often ill-defined problems, and to think strategically about both intended and unintended consequences. The study of Economics develops a student’s ability to organize thoughts, analyze complex issues, and to make clear and persuasive recommendations. These skills explain why economics majors score higher on law school admissions tests than other majors, and receive among the highest starting salaries. Recent courses have involved experimental economic techniques and their application to the understanding and testing of theory; the changing European economic community; liberal, conservative and radical perspectives on current economic policy; the restructuring of the California and United States economy; public finance options for local, state and federal government units; the use of simulations and modeling in economic analysis; political economy; and, experimental and behavioral economic theories and practices.

Education

EDUC 1 Introduction to Elementary Education in a Diverse Society

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours lecture, three hours laboratory (60 hours total per quarter). Examination of principles and practices of elementary education in today’s society including observations and supervised participation in the elementary school setting.

EDUC 46 Mathematics for Elementary Education

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

Prerequisite: Mathematics 114 with a grade of C or better, or a qualifying score on Intermediate Algebra Placement Test within the past calendar year.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Also listed as Mathematics 46. Students may enroll in either department, but not both, for credit.

Five hours lecture (60 hours total per quarter). Designed for prospective elementary and middle school teachers. An introduction to the discipline of mathematics as the use of logical, quantitative, and spatial reasoning in the abstraction, modeling, and problem solving of real-world situations. The main topics in the course include the origins of mathematics, mathematical reasoning and problem solving strategies, theory of sets, integers and integral number theory, rational numbers and proportion, real numbers and decimal notation, and measurement. Throughout the course students will experience the learning of mathematics in a way that models how they can create an active learning environment for their future students.

EDUC 56 Understanding and Working with English Language Learners

Advisory: Completion of Child Development 106 (or Psychology 106) and 55; English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Also listed as Child Development 56. Students may enroll in either department, but not both, for credit.

Three hours lecture (36 hours total per quarter). Developmental and cultural examination of the dual language learner in early childhood programs. Theories and developmental sequence of bilingual language acquisition. Role of teacher and methods for supporting the dual language child. (This course meets NAECY Standard 4b: Teaching and learning: Using developmentally effective approaches; NBPTS Early childhood/Generalist Standard II: Equity, Fairness and Diversity; CEC Special Education Content Standards, Standard 2: Development & Characteristics of Learners; Standard 6: Language.)
ENGR 10  Introduction to Engineering  4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture, five hours laboratory (86 hours total per quarter).
An introduction to engineering design through a variety of projects, including experimentation, data analysis, and development of computer skills. Exposure to several engineering disciplines through problem solving for the purpose of providing information to assist students in a choice of major.

ENGR 35  Statics  4 Units
Prerequisite: English 10; Mathematics 1B; Physics 4A.
Three hours lecture, three hours laboratory (72 hours total per quarter).
Principles of statics as applied to particles and rigid bodies in two and three dimensions. Vector solutions for concentrated and distributed loads. Determination of centroids and moments of inertia and the effects of dry friction. Programming computer solutions.

ENGR 37  Introduction to Circuit Analysis  5 Units
Prerequisite: Mathematics 1D; Physics 4B (may be taken concurrently).
Five hours lecture (60 hours total per quarter).

ENGR 77  Special Projects in Engineering  4 Units
Prerequisite: Consent of instructor and division dean.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
May be taken two times for credit as long as the topic differs each time.)
Reading and analysis of representative works of one, two, or three major authors through lecture, discussion, and critical writing. Emphasis on author or authors' stylistic innovations as well as historical, class, cultural, ethnic, and gender issues relevant to the texts and biographies.

ELIT 6  Cinema and the African American (An Historical Analysis of African Americans in American Cinema)  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
A survey of the image and role of the African-American film industry. Particular attention will be given to the development of images of racial stereotypes, those works attempting a historical portrayal of the African-American experience and the roles played by key African Americans in the evolution of film as an art and feature films as an industry in the United States.

ELIT 10  Introduction to Fiction  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Intensive study of fiction; reading, discussion and analysis of structure and meaning in selected novels and short stories.

ELIT 11  Introduction to Poetry  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Intensive study of poetry; reading, discussion, and analysis of structure and meaning in selected poems.

ELIT 12  Introduction to Dramatic Literature  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Intensive study of dramatic literature; reading, discussion, and analysis of structure and meaning in selected plays.

ELIT 17  Introduction to Shakespeare  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
An introduction to the study of the Bible, in English, from a literary, cultural, and historical point of view, with consideration of its influence on our culture. Selected readings from Hebrew Bible, Greek New Testament, and Apocalypse.

ELIT 19  Introduction to the Bible as Literature  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
An introduction to the study of the Bible, in English, from a literary, cultural, and historical point of view, with consideration of its influence on our culture. Selected readings from Hebrew Bible, Greek New Testament, and Apocalypse.

ELIT 20  Major Authors  4 Units
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 1A.
Four hours lecture (48 hours total per quarter).
(May be taken two times for credit as long as the topic differs each time.)
Reading and analysis of representative works of one, two, or three major authors through lecture, discussion, and critical writing. Emphasis on author or authors' stylistic innovations as well as historical, class, cultural, ethnic, and gender issues relevant to the texts and biographies.
ELIT 21  Women in Literature   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as Women's Studies 21. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
Intensive study of representative literary works by and about women including an analysis of different historical, cultural, and critical perspectives.

ELIT 22  Mythology and Folklore   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
An intercultural survey of prehistoric, historic, and contemporary world mythology and folklore which examines the relationship between a culture’s myths and folktales and its art, literature, and social values.

ELIT 24  Asian American Literature   4 Units
(Formerly English Literature 52.)
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Intercultural Studies 24. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
Introduction to Asian American literature. Readings in Twentieth and Twenty-First Century works, with an emphasis on three relevant themes: problems of identity as it relates to class, gender, mixed heritages, and sexuality; politics and the history of Asian American activism and resistance; and diversity of cultures within the Asian American community.

ELIT 25  Introduction to Linguistics   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as Linguistics 1. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
Introduction to the nature of language. Origin and development of spoken and written languages, how people learn languages, and how languages change, with emphasis on the history of English. Basics of linguistic description including systems of phonetics and phonology, semantics, morphology and syntax. Study of general linguistic principles as they apply across languages.

ELIT 39  Contemporary Literature   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Critical examination of representative, contemporary literary works of the post-World War II period, with emphasis on more recent works and intercultural offerings. Attention to key trends, styles, and issues in a global context.

ELIT 44  International Literature (Fiction)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Reading and critical analysis of representative works of international fiction, including works from Africa, Asia, Latin America, Pacific Islands, and Australia. Literary, cultural, and cross-cultural interpretation, evaluation, and comparison. Cross-cultural interpretation and literary analysis of short stories and novels.

ELIT 46A  Major British Writers (Medieval and Renaissance)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Reading and critical analysis of representative works by major writers such as Chaucer, Shakespeare and Milton.

ELIT 46B  Major British Writers (Neo-Classical and Romantic)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5; or consent of the instructor.
Four hours lecture (48 hours total per quarter).
Reading and critical response to representative works by major writers such as Pope, Behn, Swift, Johnson, Wordsworth, Coleridge, Percy and Mary Godwin Shelley, Keats, Austen, Montagu, and the Bronte sisters.

ELIT 46C  Major British Writers (Victorian and Modern)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Reading and critical response to representative works by major writers such as the Brontes, Tennyson, Barrett Browning, Browning, Dickens, Arnold, Hopkins, Wilde, Lawrence, Hardy, Yeats, Conrad, Joyce, Eliot, Beckett, Woolf and Auden.

ELIT 48A  Major American Writers (Colonial to Romantic, 1620-1865)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Reading and critical analysis of representative works by diverse writers such as William Bradford, Anne Bradstreet, Jonathan Edwards, Ben Franklin, Thomas Jefferson, James Fenimore Cooper, Edgar Allan Poe, Nathaniel Hawthorne, Herman Melville, Frederick Douglass, Harriet Jacobs, Harriet Beecher Stowe, Elias Boudinot, Chief Seattle, Sojourner Truth, Ralph Waldo Emerson, Margaret Fuller, Henry David Thoreau.

ELIT 48B  Major American Writers (The Advent of Realism, 1865-1914)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Reading and critical analysis of representative works by major writers such as Walt Whitman, Emily Dickinson, Mark Twain, Henry James, William Dean Howells, Charlotte Perkins Gilman, Charles Chesnutt, Mary Wilkins Freeman, Kate Chopin, Stephen Crane, Booker T. Washington, W.E.B. DuBois, Black Elk, and Robert Frost.

ELIT 48C  Major American Writers (The Modern Age, 1914-the Present)   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Reading and critical analysis of representative works by major writers such as Faulkner, Hemingway, Hurston, Morrison, Fitzgerald, Hughes, Wright, Ellison, Williams, Cisneros, Stevens, Sexton, Eliot, Vonnegut, Pynchon, O’Connor, Flath, Carver, Wilson, and O’Neill.

ELIT 58  Children’s Literature   4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Study of the literature of children (pre-elementary through young adult) with an emphasis on poetry, picture books, folk tales, myths, fiction, fantasy, and nonfiction from a variety of cultures, ethnicities and historical periods. Evaluation of the literary quality and the cultural and historical meaning of individual works. Study of the use of children’s literature as an educational tool both in the classroom and outside of it.

ELIT 78  Special Topics in Literature   1 Unit
ELIT 78X  2 Units
ELIT 78Y  2 Units
ELIT 78Z  4 Units
Advisory: English Writing 1A or English as a Second Language 5, or recommendation of instructor or counselor.
One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter).
(Any combination of English Literature 78, 78X, 78Y and 78Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
Intensive study and analysis of a special topic in literature.

ELIT 97  Special Topics: Shakespeare in Performance   2 Units
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture-laboratory (48 hours total per quarter).
(May be taken six times for credit, as the topics are different each time.)
Discussions of selected plays and an extended field trip to live performances of the plays at the annual Oregon Shakespeare Festival. Costs to be borne by the student.

English/Writing

Some courses in this department have recommended competencies. These are determined by placement tests; students who have not taken placement tests or who are unsure of their scores should call the Assessment Office at 408.864.8717.

EWRT 1A  Composition and Reading   5 Units
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 211 and Reading 211 (or Language Arts 211); or equivalent placement (normally based on results of the English Placement Tests).
Five hours lecture (60 hours total per quarter).
Introduction to university level reading and writing, with an emphasis on analysis. Close examination of a variety of texts (personal, popular, literary, professional, academic) from culturally diverse traditions. Practice in common rhetorical strategies used in academic writing. Composition of clear, well-organized, and well-developed essays, with varying purposes and differing audiences, from personal to academic.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
EWRT 1B Reading, Writing and Research 5 Units
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 1A.
Five hours lecture (60 hours total per quarter).
Development of analytical, integrative skills in reading and writing. Academic (interpretative, analytical, argumentative) writing based largely on reading of literary/imaginative texts linked by a common theme or issue. Outside research leading to analysis, comparison, and synthesis in documented research paper.

EWRT 1C Literature and Composition 5 Units
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 1B.
Five hours lecture (60 hours total per quarter).
Applies the analytical, critical, and synthesis skills developed in English Writing 1A and 1B to the ways meaning can be made in diverse cultural, social, and historical contexts in prose, poetry, and drama by reading and analyzing texts and critical interpretations and by composing critical responses, analyses, and arguments.

EWRT 2 Critical Reading, Writing and Thinking 5 Units
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 1A.
Five hours lecture (60 hours total per quarter).
Develops critical thinking skills and the ability to apply these skills to reading and writing. Develops analytical and argumentative academic essays based on reading of complex texts, and the use of outside research leading to analysis, comparison, and synthesis and a documented research paper.

EWRT 30 Introduction to Creative Writing 4 Units
(Formerly English Writing 52.)
(See general education pages for the requirement this course meets.)
Prerequisite: English Writing 211 and Reading 211 (or Language Arts 211).
Four hours lecture (48 hours total per quarter).
Introduction to the writing of fiction, poetry, drama, and creative nonfiction, through both critical analysis and intensive practice.

EWRT 40 Fiction Writing 4 Units
Prerequisite: English Writing 211 and Reading 211 (or Language Arts 211).
Four hours lecture (48 hours total per quarter).
Development of fiction writing skills through critical analysis and intensive practice.

EWRT 41 Poetry Writing 4 Units
Prerequisite: English Writing 211 and Reading 211 (or Language Arts 211).
Four hours lecture (48 hours total per quarter).
Development of poetry writing skills through critical analysis and intensive practice.

EWRT 42 Writing It Real: Creative Nonfiction and Memoir Writing 4 Units
(Formerly English Writing 54.)
Prerequisite: English Writing 211 and Reading 211 (or Language Arts 211).
Four hours lecture (48 hours total per quarter).
Development of skills in writing creative nonfiction and memoir through critical analysis and intensive practice.

EWRT 61 Introduction to Technical Writing* 5 Units
Prerequisite: English Writing 1A or English as a Second Language 5.
(Also listed as Business 61 and Technical Writing 61. Students may enroll in only one department for credit.)
Five hours lecture (60 hours total per quarter).
Technical writing skills focusing on basic techniques of exposition for the technical field, functional description, process writing, technical vocabulary, correct usage, and accurate editing.

EWRT 62 Survey of Technical Writing* 5 Units
Prerequisite: Business 61 or English Writing 61 or Technical Writing 61 (may be taken concurrently).
(Also listed as Business 62 and Technical Writing 62. Students may enroll in only one department for credit.)
Five hours lecture (60 hours total per quarter).
Technical writing skills focusing on short document formats, production of sections of various technical documents, and incorporation of graphics within text.

EWRT 63 Technical Publications* 5 Units
Prerequisite: Business 61 or English Writing 61 or Technical Writing 61.
(Also listed as Business 63 and Technical Writing 63. Students may enroll in only one department for credit.)
Five hours lecture (60 hours total per quarter).
Technical writing and editing skills applied through individual and group assignments with emphasis on planning, scheduling, and producing longer reports, manuals, and instructions. Development of organizational skills and individual documentation solutions.

EWRT 64 Technical Writing Seminar* 5 Units
Prerequisite: Business 62 or 63; or English Writing 62 or 63; or Technical Writing 62 or 63.
(Also listed as Business 64 and Technical Writing 64. Students may enroll in only one department for credit.)
Five hours lecture (60 hours total per quarter).
Technical communication and editing skills applied through the preparation and presentation of a complete document according to the standards of the student's chosen technical field.

EWRT 65 Literary Magazine 1 Unit
EWRT 65X 2 Units
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as Journalism 65W and 65X. Students may enroll in either department, but not both, for credit.)
Two hours lecture-laboratory for the one-unit course (24 hours total per quarter); two hours lecture-laboratory and three hours laboratory for the two unit course (60 hours total per quarter).
(Any combination of English Writing 65, 65X and Journalism 65W, 65X may be taken up to six times for credit. Submissions vary each quarter, so content is different. Students build upon previous experience and develop higher-level skills.)
Collaborative evaluation and selection of fiction, poetry, photography, drawings, and other literary and artistic work for literary magazine. Magazine design and production. (Additional editorial, production, management, or marketing work for English Writing 65X and Journalism 65X.)

EWRT 77 Special Projects in English 1 Unit
EWRT 77X 2 Units
EWRT 77Y 3 Units
(Formerly English Writing 56, 56X and 56Y respectively.)
Prerequisite: Consent of instructor and division dean.
Advisory: English Writing 1A or English as a Second Language 5.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of English Writing 77, 77X and 77Y may be taken up to six times for credit, not to exceed 18 units, as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Special reading, writing, or study projects in English as determined in consultation with the instructor.

EWRT 97 Introduction to Peer Tutoring in Writing 3 Units
Prerequisite: English Writing 1A or English as a Second Language 5; must be hired to work as a De Anza tutor.
(Also listed as Learning Assistance 97. Students may enroll in either department, but not both, for credit.)
Three hours lecture (36 hours total per quarter).
Required training for De Anza writing tutors. Introduction to the theory and practice of tutoring writing, including strategies and approaches to help students from diverse linguistic backgrounds at various stages of the writing process. Students read about, observe, discuss, write about and practice the craft of tutoring writing. After an initial orientation, students in the class begin tutoring, and reflect on their tutoring experiences as part of the class.

EWRT 200 Fundamentals of Writing 5 Units
(Formerly English Writing 100A.)
Credit course - Does not apply to De Anza Associate degree.
Prerequisite: Qualifying score on the English Placement Test.
Five hours lecture (60 hours total per quarter).
(May be taken two times for credit.)
Pass-No Pass (P-NP) course.
Practice focused, purposeful writing in several formats to different audiences with a variety of sentence structures responding to, engaging with or inspired by written or visual texts. Edit writing to correct errors in the major conventions of Standard Written English.

EWRT 211 Preparatory Reading and Writing Skills 5 Units
(Formerly English Writing 100.)
Credit course - Does not apply to De Anza Associate degree.
Prerequisite: English Writing 200 and Reading 200 (or Language Arts 200); or a qualifying score on the English Placement Test.
Five hours lecture (60 hours total per quarter).
Pass-No Pass (P-NP) course.
Develop the abilities necessary for college-level reading and essay writing. Emphasize writing in response to critical questions about assigned texts.

*NOTE: The Technical Writing program is being phased out. Technical Writing classes will no longer be offered after spring quarter 2013 with the exception of TWRT 64 which will end after fall 2013.
ESL 213 Vocabulary and Idioms in Context 1/2 Unit

ESL 213X (English as a Second Language 213 was formerly English as a Second Language 113.)
Credit course - Does not apply to De Anza Associate degree.
Restriction to students whose native language is not English.
Prerequisite: English as a Second Language 244.
One hour lecture-laboratory for the one-half unit course (12 hours total per quarter); two hours lecture-laboratory for the one unit course (24 hours total per quarter).
Pass-No Pass (P-NP) course.
Vocabulary expansion; reading and listening exposure to vocabulary and idioms in a variety of contexts with follow-up spoken and written practice.

ESL 214 English for Academic Skills 1/2 Unit

ESL 214X Credit course - Does not apply to De Anza Associate degree.
Prerequisite: English as a Second Language 261, 262 and 263.
One hour lecture-laboratory (12 hours total per quarter). (May be taken up to three times for credit.)
Pass-No Pass (P-NP) course.
Academic skills with emphasis on improving skills in reading, writing and aurally comprehending academic English to prepare students for college-level general education courses.

ESL 216 Advanced Reading Practice 1/2 Unit

ESL 216X (English as a Second Language 216 was formerly English as a Second Language 116.)
Credit course - Does not apply to De Anza Associate degree.
Restriction to students whose native language is not English.
Prerequisite: English as a Second Language 252.
One hour lecture-laboratory for the one-half unit course (12 hours total per quarter); two hours lecture-laboratory for the one unit course (24 hours total per quarter).
Pass-No Pass (P-NP) course.
Extensive reading to expand vocabulary, develop critical reading skills, and improve ability to analyze reading selections through small group discussion.

ESL 222 Reading Comprehension 1/2 Unit

ESL 222X (Formerly English as a Second Language 222.)
Credit course - Does not apply to De Anza Associate degree.
Restriction to students whose native language is not English.
Prerequisite: English as a Second Language 244.
One hour lecture-laboratory (12 hours total per quarter). (May be taken up to three times for credit.)
Pass-No Pass (P-NP) course.
Reading practice and vocabulary development to improve comprehension of topics and issues reported by the news media.

ESL 223 Reading and Vocabulary Building 1/2 Unit

ESL 223X (English as a Second Language 223 was formerly English as a Second Language 123.)
Credit course - Does not apply to De Anza Associate degree.
Restriction to students whose native language is not English.
Prerequisite: English as a Second Language 244.
One-hour lecture-laboratory for the one-half unit course (12 hours total per quarter); two hours lecture-laboratory for the one unit course (24 hours total per quarter).
Pass-No Pass (P-NP) course.
Develop an appreciation for reading and sharing ideas in English while improving reading skills, retention, and vocabulary.

ESL 230 Studies in American Language and Culture 1 Unit

ESL 230W 2 Units
ESL 230X 3 Units
ESL 230Y 4 Units

Credit course - Does not apply to De Anza Associate degree.
Restriction to students whose native language is not English.
Prequisite/Advisory: None.
One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter). Pass-No Pass (P-NP) course.
Develop conversation, discussion and listening skills for clear communication in a variety of contexts. Investigate and analyze customs and attitudes in American culture from a multicultural perspective.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
ESL 234 Low Intermediate English as a Second Language 10 Units
(Formerly English as a Second Language 134.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: Qualifying score on the English as a Second Language Placement Test.
Ten hours lecture (120 hours total per quarter).
Development of English speaking, listening, reading and writing skills. Practice in listening to and using basic forms of conversational English to ask and answer questions on a variety of cultural topics. Development of basic reading comprehension and vocabulary. Practice in writing simple and compound sentences, short narratives, explanations, and descriptions.

ESL 244 Intermediate English as a Second Language 10 Units
(Formerly English as a Second Language 144.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: Qualifying score on the English as a Second Language Placement Test; or English as a Second Language 234 with a grade of C or better.
Ten hours lecture (120 hours total per quarter).
Development of English speaking, listening, reading and writing skills. Includes pronunciation practice, vocabulary building skills, writing short compositions and discussion of cross-cultural topics.

ESL 251 High Intermediate Listening and Speaking 3 Units
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 244; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 251 students may also take English as a Second Language 252 and 253 concurrently.
Three hours lecture (36 hours total per quarter).
English speaking and listening practice in a variety of contexts. Development of vocabulary appropriate in both formal and informal situations.

ESL 252 High Intermediate Reading 3 Units
(Formerly English as a Second Language 152.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 244; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 252 students may also take English as a Second Language 251 and 253 concurrently.
Three hours lecture (36 hours total per quarter).
Development of high intermediate English reading comprehension and vocabulary building skills in extended written materials.

ESL 253 High Intermediate Grammar and Writing 4 Units
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 244; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 253 students may also enroll in English as a Second Language 251 and 252 concurrently.
Four hours lecture (48 hours total per quarter).
Develop skills in using level-specific grammar and sentence structure in writing. Write organized and well-developed descriptive, narrative, and explanatory paragraphs.

ESL 254 American Language and Culture Through Movies and Television Shows 3 Units
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 251; or a qualifying score on the English as a Second Language Placement Test.
Three hours lecture (36 hours total per quarter). Pass-No Pass (P-NP) course.
Develop an understanding of American culture, language, common idioms and slang through viewing and discussing American films and television.

ESL 260 Accent Reduction (for Non-Native Speakers) 3 Units
(Formerly English as a Second Language 160.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Advisory: English as a Second Language 251.
Two hours lecture, three hours laboratory (60 hours total per quarter). Pass-No Pass (P-NP) course.
Emphasis on production of speech that is intelligible and accurate, through study and practice of English language sound system, stress, linking, reduction, rhythm, and intonation patterns.

ESL 261 Low Advanced Listening and Speaking 3 Units
(Formerly English as a Second Language 161.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 251 or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 261 students may also enroll in English as a Second Language 262 and 263 concurrently.
Three hours lecture (36 hours total per quarter).
Development of advanced reading comprehension, vocabulary building skills, and improved reading rate in extended written materials.

ESL 262 Low Advanced Reading 3 Units
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 252 and 253; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 262 students may also enroll in English as a Second Language 261 and 263 concurrently.
Four hours lecture (48 hours total per quarter).
Develop skills for writing clear, organized, well-developed, multiple paragraph compositions that demonstrate analytical thinking and level-appropriate grammar, sentence structure and vocabulary.

ESL 263 Low Advanced Grammar and Writing 4 Units
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English as a Second Language 252 and 253; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 263 students may also enroll in English as a Second Language 261 and 262 concurrently.
Five hours lecture (60 hours total per quarter).
Development of academic vocabulary and reading skills through extensive reading of college level material in English.

ESL 272 Advanced Reading and Vocabulary 5 Units
(Formerly English as a Second Language 172.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 262 and 263; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 272 students may also enroll in English as a Second Language 273 concurrently.
Five hours lecture (60 hours total per quarter).
Principles of essay writing.

ESL 273 Introduction to the Essay 5 Units
(Formerly English as a Second Language 173.)
Credit course - Does not apply to De Anza Associate degree.
(Restricted to students whose native language is not English.)
Prerequisite: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 262 and 263; or a qualifying score on the English as a Second Language Placement Test.
Co-requisite: English as a Second Language 273 students may also enroll in English as a Second Language 272 concurrently.
Five hours lecture (60 hours total per quarter).

ESL 274 Grammar and Proofreading for Academic Writing 4 Units
(Formerly English as a Second Language 174.)
Credit course - Does not apply to De Anza Associate degree.
(Recommended for students whose native language is not English and students who wish to improve their grammar and proofreading skills.)
Prerequisite: English as a Second Language 261, 262 and 263 with a grade of C or better; or a qualifying score on the English as a Second Language Placement Test.
Prerequisite: English as a Second Language 274. Students may enroll in either department, but not both, for credit.
Four hours lecture (48 hours total per quarter).
Focus on helping students become successful academic writers by addressing their needs (a) to understand grammatical structures fundamental to college writing and (b) to develop effective proofreading skills.
ESL 280  English As a Second Language for Child Development and Education  1 Unit

ESL 280X  2 Units
ESL 280Y  3 Units

Credit course - Does not apply to De Anza Associate degree. (Restriction to students whose native language is not English and who are enrolled in the Child Development Department.)

Co-requisite: English as a Second Language 280, 280X and 280Y students must also enroll in Child Development 10G or 10H; and Child Development 12, 50, 51, 54, 56 and 64.

Advisory: English as a Second Language 251, 252, and 253; or a qualifying score on the English as a Second Language placement test.

One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter).

Language support for non-native English speakers taking Child Development courses. Includes listening/speaking, reading, writing, and vocabulary building strategies and test-taking and study skills to help students successfully understand Child Development courses, textbooks, and group discussions, and writing and interview assignments.

Environmental Science

ESCI 1  Environmental Science  4 Units
(See general education pages for the requirement this course meets.)

Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture (48 hours total per quarter).

An introduction to environmental science as a branch of the sciences and its relation to the scientific method. Review of the principles, concepts and terminology of the environmental sciences and ecological literacy including restoration ecology, landscape ecology, sustainable studies and ecosystem management. Agenda 21 and other environmental indicator tools as they relate to human use of the earth’s systems including the hydrosphere, atmosphere, lithosphere and biosphere and the impact on cultural, ethnic and gender groups will be explored.

(One-day field trip outside of scheduled class time may be required for this course.)

ESCI 1L  Environmental Science Laboratory  1 Unit
(Formerly Environmental Science 51L.)
(See general education pages for the requirement this course meets.)

Co-requisite: Environmental Science 1L students must also enroll in, or have completed, Environmental Science 1.

Advisory: English Writing 1A or English as a Second Language 5.

Three hours laboratory (36 hours total per quarter).

An introduction to environmental science as a branch of the sciences including the scientific method and its relation to the scientific field in a laboratory and field setting. Applications of scientific, environmental, ecological and sustainability principles as they relate to human societies will be explored.

ESCI 19  Environmental Biology  5 Units
(Formerly Biology 19.)
(See general education pages for the requirement this course meets.)

Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture, three hours laboratory (84 hours total per quarter).

An introduction to environmental biology as a branch of the environmental sciences and its relation to the scientific field. Review of the principles of environmental biology, ecology and conservation as they relate to natural resource use, the biodiversity crisis, pollution, human population and the impacts on all cultural, ethnic and gender groups.

(Field trip outside of scheduled class time may be required for this course.)

ESCI 20  Introduction to Biodiversity  5 Units
(Formerly Biology 20.)
(See general education pages for the requirement this course meets.)

Advisory: English Writing 1A or English as a Second Language 5; Environmental Science 19.

Four hours lecture, three hours laboratory (84 hours total per quarter).

Introduction to biodiversity conservation as a branch of the environmental sciences, conservation biology and related scientific fields. Includes survey of species and ecosystem diversity, principles of ecological classification; evolutionary trends and the mechanisms of evolution; ecology and the importance and problems of biodiversity conservation today.

ESCI 21  Biodiversity  5 Units
Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture, three hours laboratory (84 hours total per quarter).

A survey of the California Floristic Province, emphasizing the ways California's biodiversity is sampled and studied. Includes hands-on fieldwork surveying vegetation and animal populations; discussion of societal impacts of biodiversity loss and conservation; and the importance of biodiversity conservation today.

(Off-campus field trips will be required.)

ESCI 30  Conservation Biology  5 Units
(Formerly Biology 30.)
(See general education pages for the requirement this course meets.)

Advisory: English Writing 1A or English as a Second Language 5.

Four hours lecture, three hours laboratory (84 hours total per quarter).

An introduction to conservation biology as a branch of the environmental sciences with particular focus on maintaining genetic, species and ecological diversity of life on Earth. Contemporary bio-conservation issues will be explored and adaptive, community-based conservation techniques applied to develop practical problem-solving approaches to the biodiversity crisis including habitat fragmentation. In addition cultural, economic and philosophical aspects of biodiversity conservation will be explored.

(Off-campus field trips will be required.)

ESCI 50  Introduction to Wildlife Corridor Technician: Connectivity  4 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Four hours lecture (48 hours total per quarter).

Explores wildlife corridors (connectivity) practice and technology in the 21st century including the scientific principles of corridor ecology, landscape ecology and ecosystem (adaptive) management. Applies the principles (theory) of wildlife corridor technology to assist in the preservation, protection and restoration of native species and ecosystems.

ESCI 52  Wildlife Corridor Technician: Animal Tracking Techniques  4 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Four hours lecture (48 hours total per quarter).

Explores traditional techniques of animal tracking and observation. Applies the field (practical) techniques used in wildlife corridor technology to assist in the preservation, protection and restoration of native species and ecosystems.

ESCI 53  Wildlife Corridor Technician: Data Collection  1 Unit

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours laboratory (36 hours total per quarter).

Explores the data collection techniques, protocol and equipment utilized in wildlife corridor technology. Applies the data collection techniques used in the wildlife corridor discipline to assist in the preservation, protection and restoration of native species and ecosystems.

ESCI 54  Wildlife Corridor Technician: Data Analysis  3 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours lecture (36 hours total per quarter).

Explores the data analysis techniques (including least cost path analysis), protocol and equipment utilized in wildlife corridor technology. Applies the data analysis techniques utilized in the wildlife corridor discipline to assist in the preservation, protection and restoration of native species and ecosystems.

ESCI 55  Wildlife Corridor Technician: Corridor Design  3 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours lecture (36 hours total per quarter).

Examines the process of wildlife corridor (connectivity) design in the 21st century, incorporating the principles and challenges of corridor ecology, ecosystem (adaptive) management and the urban-wildlife interface. Applies the principles of wildlife corridor design to assist in the preservation, protection and restoration of native species and ecosystems.

ESCI 56  Wildlife Corridor Technician: Plant Survey Techniques  3 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours lecture (36 hours total per quarter).

Examines the plant survey techniques and plant community ecology principles utilized in wildlife corridor design, preservation or restoration. Applies these plant survey techniques to assist in the preservation, protection and restoration of native species and ecosystems.

ESCI 57  Wildlife Corridor Technician: Advanced Tracking  2 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Six hours laboratory (72 hours total per quarter).

Advanced tracking field studies lab course exploring wildlife movement and activities along the 37th parallel (Santa Cruz Mountains through the Diablo Range). Applies the principles of wildlife corridor technology to assist in the preservation, protection and restoration of native species and ecosystems.
ESCI 58 Wildlife Corridor Technician: Advanced Tracking 2
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. Twelve hours laboratory (744 hours total per quarter).
Advanced tracking, level 2, field studies lab course exploring wildlife movement, activities and analysis along the 37th parallel (Santa Cruz Mountains through the Diablo Range) and statewide (C to C: Coyote Valley to Carrizo Plains National Monument). Applies the advanced tracking principles and techniques to a statewide corridor case study (California’s New Model for Corridors, Connectivity, Children & Capital) to assist in the preservation, protection and restoration of native species and ecosystems statewide.

ESCI 61 Introduction to Photovoltaic (PV) Technology
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. Three hours lecture (36 hours total per quarter).
An introduction to the fundamentals of photovoltaic (PV) basics including how solar cells convert sunlight to electricity, solar potential, types of solar systems, system size requirement and design, net metering options, rebate programs, and related topics for your home or business. An emphasis on the benefits of renewable energy technology as well as how to understand and review multiple bids and analyzing the economics of a PV installation. Good introductory course for students considering the North American Board of Certified Energy Practitioners (NABCEP) certification program. (Out-of-class field trips may be required for this course.)

ESCI 82 Central Coast Wildlife Corridors: Coyote Valley
1 Unit
ESCI 82X 2 Units
ESCI 82Y 3 Units
ESCI 82Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 82, 82X, 82Y and 82Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Coyote Valley Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 83 Central Coast Wildlife Corridors: Pacheco Pass
1 Unit
ESCI 83X 2 Units
ESCI 83Y 3 Units
ESCI 83Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 83, 83X, 83Y and 83Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Pacheco Pass Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 84 Central Coast Wildlife Corridors: San Benito River Drainage
1 Unit
ESCI 84X 2 Units
ESCI 84Y 3 Units
ESCI 84Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 84, 84X, 84Y and 84Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the San Benito River drainage Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 85 Central Coast Wildlife Corridors: Pajaro River Drainage
1 Unit
ESCI 85X 2 Units
ESCI 85Y 3 Units
ESCI 85Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 85, 85X, 85Y and 85Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Pajaro River drainage Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 86 Central Coast Wildlife Corridors: Salinas River Drainage
1 Unit
ESCI 86X 2 Units
ESCI 86Y 3 Units
ESCI 86Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 86, 86X, 86Y and 86Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Salinas River Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 87 Special Projects in Environmental Science
1 Unit
ESCI 77X 2 Units
ESCI 77Y 3 Units
Prerequisite: Consent of instructor and division dean.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 77, 77X and 77Y may be taken up to six times, not to exceed 18 units, as long as the projects are different each time.)
Individual research in environmental science. Specific projects determined in consultation with the instructor. Outside reading and written report required.

ESCI 88 Wildlife Corridor Technician: Intermediate Tracking
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture (12 hours total per quarter).
Explore the newly emerging field of ecotourism in the 21st century including the principles of ecosystem management and restoration ecology and community-based coalitions throughout the Americas. Apply the community-based ecotourism model of collaboration to local environmental case studies to preserve, protect and restore native species and ecosystems.

ESCI 89 Central Coast Wildlife Corridors: Diablo Range
1 Unit
ESCI 89X 2 Units
ESCI 89Y 3 Units
ESCI 89Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 89, 89X, 89Y and 89Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Diablo Range Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 90 Central Coast Wildlife Corridors: Diablo Range
1 Unit
ESCI 90X 2 Units
ESCI 90Y 3 Units
ESCI 90Z 4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 90, 90X, 90Y and 90Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Diablo Range Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.
An exploration of the Diablo Range Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 90  Santa Clara County Field Studies: Tule Elk
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of the American badger (taxidea taxus) found in Santa Clara County, California with an emphasis on the history of tule elk reintroduction, habitat utilization, home range characteristics, behaviors and other natural history insights. The underlying social, economic and political issues associated with the near extinction and restoration of this subspecies of North American elk will be discussed. (Off-campus field trips will be required.)

ESCI 91  Santa Clara County Field Studies: American Badger
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of the American badger (taxidea taxus) found in Santa Clara County, California with an emphasis on habitat utilization, home range characteristics, behaviors and other natural history insights. The underlying social, economic and political issues associated with the decline and listing as a species of special concern for this mammal will be discussed. (Off-campus field trips will be required.)

ESCI 92  Santa Clara County Field Studies: Raptors
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of raptors (bird of prey) found in Santa Clara County, California with an emphasis on the natural history such as habitat utilization, breeding biology, behaviors, identification and migration. Local conservation issues associated with raptors will also be looked at. (Off-campus field trips will be required.)

Environmental Studies

ESC 87  Central Coast Wildlife Corridors: Diablo Range  1 Unit
ESCI 87X  2 Units
ESCI 87Y  3 Units
ESCI 87Z  4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 87, 87X, 87Y and 87Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Diablo Range Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 88  Central Coast Wildlife Corridors: Santa Cruz Mountains  1 Unit
ESCI 88X  2 Units
ESCI 88Y  3 Units
ESCI 88Z  4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 88, 88X, 88Y and 88Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Santa Cruz Mountains Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 90  Santa Clara County Field Studies: Tule Elk
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of the American badger (taxidea taxus) found in Santa Clara County, California with an emphasis on the history of tule elk reintroduction, habitat utilization, home range characteristics, behaviors and other natural history insights. The underlying social, economic and political issues associated with the near extinction and restoration of this subspecies of North American elk will be discussed. (Off-campus field trips will be required.)

ESCI 91  Santa Clara County Field Studies: American Badger
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of the American badger (taxidea taxus) found in Santa Clara County, California with an emphasis on the history of tule elk reintroduction, habitat utilization, home range characteristics, behaviors and other natural history insights. The underlying social, economic and political issues associated with the near extinction and restoration of this subspecies of North American elk will be discussed. (Off-campus field trips will be required.)

ESCI 92  Santa Clara County Field Studies: Raptors
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of raptors (bird of prey) found in Santa Clara County, California with an emphasis on the natural history such as habitat utilization, breeding biology, behaviors, identification and migration. Local conservation issues associated with raptors will also be looked at. (Off-campus field trips will be required.)

ESCI 87  Central Coast Wildlife Corridors: Diablo Range  1 Unit
ESCI 87X  2 Units
ESCI 87Y  3 Units
ESCI 87Z  4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 87, 87X, 87Y and 87Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Diablo Range Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 88  Central Coast Wildlife Corridors: Santa Cruz Mountains  1 Unit
ESCI 88X  2 Units
ESCI 88Y  3 Units
ESCI 88Z  4 Units
Requisite/Advisory: None.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Environmental Science 88, 88X, 88Y and 88Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
An exploration of the Santa Cruz Mountains Wildlife Corridor as an integral component of the Central Coast Wildlife Corridor Regional Landscape (CCWCLR). This field studies course will emphasize wildlife field identification techniques, animal tracking and bird survey protocols, field observation and data collection. These field studies will assist in the long-term preservation, protection and restoration of native species and ecosystems of the Central Coast Region.

ESCI 90  Santa Clara County Field Studies: Tule Elk
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of the American badger (taxidea taxus) found in Santa Clara County, California with an emphasis on the history of tule elk reintroduction, habitat utilization, home range characteristics, behaviors and other natural history insights. The underlying social, economic and political issues associated with the near extinction and restoration of this subspecies of North American elk will be discussed. (Off-campus field trips will be required.)

ESCI 91  Santa Clara County Field Studies: American Badger
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of the American badger (taxidea taxus) found in Santa Clara County, California with an emphasis on the history of tule elk reintroduction, habitat utilization, home range characteristics, behaviors and other natural history insights. The underlying social, economic and political issues associated with the near extinction and restoration of this subspecies of North American elk will be discussed. (Off-campus field trips will be required.)

ESCI 92  Santa Clara County Field Studies: Raptors
Requisite/Advisory: None.
One hour lecture (12 hours total per quarter).
Field observation of raptors (bird of prey) found in Santa Clara County, California with an emphasis on the natural history such as habitat utilization, breeding biology, behaviors, identification and migration. Local conservation issues associated with raptors will also be looked at. (Off-campus field trips will be required.)

Environmental Studies

ES 50 Introduction to Environmental Protection and Pollution Prevention
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
An introduction to the field of environmental protection and pollution prevention, surveying the areas of environmental law and regulation, environmental health, pollution control (treating or capturing pollution/waste at its source prior to release into the environment) and pollution prevention (reducing or eliminating pollution/waste at its source through use of the “three R’s”: Reduce-Reuse-Recycle). Includes overview of 1) U.S. and California environmental laws, regulations, and policies, 2) Environmental health issues, 3) Pollution control technologies, 4) Pollution prevention approaches and techniques (Life Cycle Assessment, Design for the Environment, Product Stewardship, Green Building, Green Chemistry, Energy Management, Water Conservation, etc.) and 4) Environmental Management Systems (EMS), including ISO 14001 and Sustainability Management Plans (SMP).

ES 56 Introduction to Environmental Health
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
One hour lecture (12 hours total per quarter).
Effective learning strategies in environmental studies including energy management technology, conservation biology, environmental education, ecological restoration, watershed management, environmental law, and other related coursework. Effective learning strategies throughout all disciplines will be discussed. Students will prepare a personal 10-step learning strategies plan. Emphasis on strategies to enhance learning for all cultural, ethnic, and gender groups.

ES 58 Introduction to Green Building
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
An overview of strategies to implement a green building project within your organization. The strategies include model green building policy and guidelines for implementation.
Examines the seven central themes of Agenda 21 to ensure that all people benefit of the Rio de Janeiro Summit in 1992, the largest-ever meeting of 179 nations. An overview of Agenda 21, an action plan to implement the principles and agreements required to achieve sustainable development. Explores environmental protection and pollution prevention with emphasis on local and regional communities. Topics are presented in a case study format and include regulatory and land use decisions as they relate to environmental agency principles. Special emphasis is placed on the California Environmental Quality Act (CEQA).

**E S 61B Environmental Protection and Pollution Prevention with Emphasis on the State and Federal Levels**

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. Four hours lecture (48 hours total per quarter).

Explores environmental protection and pollution prevention with emphasis on state and federal agencies, their missions, guiding principles, philosophies, key contacts and current issues. Specific agencies considered include the California Environmental Protection Agency (Cal/EPA) and its underlying units (Air Resources Board, State Water Resources Control Board, Dept. of Toxic Substances Control, Dept. of Pesticide Regulation, and Office of Environmental Health Hazard Assessment), the California Natural Resources Agency and its underlying units (Dept. of Conservation, Dept. of Fish and Game, Dept. of Forestry and Fire Protection, Dept. of Parks and Recreation, Dept. of Resources Recycling and Recovery, and Dept. of Water Resources), the U.S. Environmental Protection Agency and agencies under the U.S. Dept. of the Interior.

**E S 62A Introduction to ISO 14001 and Sustainability Management Plans (SMP)**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 251, 262 and 263. One hour lecture (12 hours total per quarter).

Explores the emerging field of voluntary compliance of environmental regulation including Sustainability Management Plans (SMP), in the U.S. and abroad. Assess ISO 14001, a voluntary environmental standard developed by the International Organization for Standardization (ISO), as a strategy to minimize an organization's environmental impact.

**E S 62B ISO 14001: Environmental Management Systems (EMS) and Sustainability Management Plans (SMP)**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 251, 262 and 263. One hour lecture (12 hours total per quarter).

The next step in ISO 14001 implementation is the development of an Environmental Management System (EMS) and Sustainability Management Plans (SMP). Explore a step-by-step approach, using a consensus-based model, to develop an ISO 14001 EMS and SMP.

**E S 62C ISO 14001: Integration of an Environmental Management System (EMS) and Sustainability Management Plan (SMP)**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 251, 262 and 263. One hour lecture (12 hours total per quarter).

Explores strategies and principles in the adoption, implementation and integration of an ISO 14001 Environmental Management System (EMS) and Sustainability Management Plan (SMP) for an organization including both internal and external stakeholders in environmental management.

**E S 62D ISO 14001: Voluntary Audit**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 251, 262 and 263. One hour lecture (12 hours total per quarter).

Explores strategies and procedures utilized in the process of voluntary audits of an ISO 14001 Environmental Management System (EMS) and a Sustainability Management Plan (SMP) by an organization.

**E S 63 Agenda 21: Blueprint for Sustainability**

Requisite/Advisory: None. One hour lecture (12 hours total per quarter).

An overview of Agenda 21, an action plan to implement the principles and agreements of the Rio de Janeiro Summit in 1992, the largest-ever meeting of 179 nations. Examines the seven central themes of Agenda 21 to ensure that all people benefit by the implementation of it regardless of race, ethnicity or socioeconomic status.

**E S 64 AB 32 (CA Global Warming Solutions Act of 2006)**

Requisite/Advisory: None. One hour lecture (12 hours total per quarter).

An overview of California's Global Warming Solutions Act of 2006, AB 32. The course studies an overview of strategies to implement this act within an organization and a look at the reduction of greenhouse gas emissions (GHG) by three percent per year.

**E S 65 Environmental Stewardship**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. One hour lecture (12 hours total per quarter).

Explores the role of environmental citizenship including personal responsibility and participation in local environmental case studies along the 37th parallel. Develop an understanding of environmental stewardship principles, including those of other cultural, ethnic and gender groups, and the use of such practices in establishing common ground for community-based decision-making.

**E S 66 Environmental Leadership**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. One hour lecture (12 hours total per quarter).

Explores the role of environmental leadership in the 21st Century, including development and implementation of leadership skills and models. Apply those leadership skills and models developed to address local environmental case studies.

**E S 67 Environmental Team-Building**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. One hour lecture (12 hours total per quarter).

Explores the concept of team-building in the 21st Century, including development and implementation of team-building skills and models. Apply those team-building skills and models developed to address local environmental case studies.

**E S 68 Community-Based Coalitions and Stakeholders**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. One hour lecture (12 hours total per quarter).

Explores the concept of environmental community-based coalitions in the 21st Century, including identifying and integrating key stakeholders. Apply the community-based model of collaboration to address local environmental case studies.

**E S 69 Energy Reliability and Your Organization**

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture (12 hours total per quarter).

An overview of strategies to assist in preparing an energy management action plan for your organization and staff. The strategies include model board policy, administrative guidelines, assembling an energy management action team, assessing the impact of energy policy on society, and an overview of key stakeholders in the energy field. (One out-of-class field trip may be required for this course.)

**E S 70 Introduction to Energy Management Technology**

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture (12 hours total per quarter).

An overview of the field of Energy Management and its importance in today's society, including future implications, and discussion of careers and impact on modern culture and society. This module introduces the whole building concept and related energy and conservation issues including the building envelope, HVAC systems, lighting, energy management and controls and renewable energy technologies. (One out-of-class field trip may be required for this course.)

**E S 70LX Energy Management Technology and Principles of Building Performance Laboratory**

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).

Examines Energy Management Technology and the importance and applications of building performance, controls and monitoring using the Kirsch and campus-wide lab setting. This module introduces building performance tools and equipment, energy audit technology, and an overview of the whole building concept and related energy and conservation strategies. (Out-of-class field trips will be required for this course.)
color rendering, ballasts, etc. Lighting design that provides visual comfort at lower
applications used in commercial and institutional buildings, while describing the
lighting techniques. Discusses the different types of lighting and day-lighting
provides an introduction to the fundamentals of lighting and energy management
to facilities design and construction. Examines HVAC systems and their
cooperation with other building systems. Students will consider HVAC
technologies that can help facilities managers achieve the goals of lowering energy
costs, becoming more environmentally friendly, and enhancing indoor air quality.
(out-of-class field trips will be required for this course.)

E S 72 Heating, Ventilating and Air Conditioning (HVAC) Systems
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
An introduction to HVAC systems, the systems that provide heating, cooling, humidity
control, filtration, and comfort control to facilities. Examines various HVAC systems
and their interrelationship with other building systems. Students will consider HVAC
technologies that can help facilities managers achieve the goals of lowering energy
costs, becoming more environmentally friendly, and enhancing indoor air quality.
(out-of-class field trips will be required for this course.)

E S 72A Heating, Ventilating and Air Conditioning (HVAC) Systems Laboratory
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory for each unit of credit (36 hours total for each unit of
credit per quarter).
Examinations the building shell as the primary physical component of any facility
which controls energy flow between the interior and exterior of the building using the
Kirsch and campus-wide lab setting. The goal is to experience a hands-on
understanding of the thermal performance of major building envelope components.
Topics include walls, doors, glazing (windows), roofing and building skin as well as
climatic responsive building design and construction.
(out-of-class field trips will be required for this course.)

E S 72B Electric Motors and Drives
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
Examines the opportunities for lowering energy consumption through energy-
efficient motors and motor controls, including an introduction to the technology
of high efficiency motors and variable frequency drives. Techniques to increase
current carrying capacity, improve voltage to equipment, reduce power losses,
and lower electric bills will be discussed.
(out-of-class field trips will be required for this course.)

E S 72C Lighting Distribution Systems
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
Provides an introduction to the fundamentals of lighting and energy management
lighting techniques. Discusses the different types of lighting and day-lighting
applications used in commercial and institutional buildings, while describing the
quality and quantity of lighting needed for certain applications, measuring efficiency,
color rendering, ballasts, etc. Lighting design that provides visual comfort at lower
energy costs will be emphasized.
(out-of-class field trips may be required for this course.)

E S 72D Energy Star Products
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
An introduction to Energy Star products including high efficiency, high performance
commercial, industrial and residential equipment and appliances that reduce energy
consumption and save money.

E S 72E Solar Thermal Systems
1 Unit
(formerly Environmental Studies 77.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
An overview of solar thermal systems including water heating technologies
which reduce energy use to generate hot water including maintaining equipment
and insulation, reducing hot water use and water temperatures, reducing heat
losses from the system, and utilizing waste heat sources and renewable energy
technologies, including solar.

E S 72F Special Projects in Environmental Studies
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory for each unit of credit (36 hours total for each unit of
credit per quarter).
Between studies and environmental studies as well in the campus-wide lab setting.
Students will interact with computer-based energy management systems, as well as
control systems to reduce peak electrical demand will be discussed.
(out-of-class field trips may be required for this course.)

E S 72G Energy Management Systems and Controls
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
Describes the most commonly used controls and energy management systems in
commercial and institutional applications. Topics will include complex automatic
systems for major energy-consuming equipment, as well as simple controls, including
time clocks, occupancy sensors, photocells, and programmable thermostats.
Computer-based energy management systems, as well as control systems to
reduce peak electrical demand will be discussed.
(out-of-class field trips may be required for this course.)

E S 72H Renewable and Alternative Energy Systems
1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
An introduction to the potential for renewable and alternative energy systems
when adding power generation capacity for a site or large facility. Life-cycle cost
comparisons between renewable energy systems and conventional power generation
and the added potential of reducing peak power demand will be emphasized.
Topics include photovoltaic power systems, wind energy systems, and fuel cells.
(out-of-class field trips may be required for this course.)

All courses are for unit credit and apply to a
De Anza associate degree unless otherwise noted.
E S 90X Renewable and Alternative Energy Systems Laboratory 1 Unit

E S 90Y Environmental and Alternative Energy Systems Laboratory 2 Units

E S 90Z Energy Systems Laboratory 3 Units

Prerequisite: Environmental Studies 79 (may be taken concurrently).
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
Examines renewable and alternative energy systems for residential, commercial and large-scale applications. Life-cycle cost comparisons between renewable energy systems (including aspects of passive solar design) and conventional power generation and the added potential of reducing peak power demand will be emphasized. Students will explore the photovoltaic power systems, wind energy systems, solar thermal systems and fuel cells located at the Kirsch Center Environmental Studies Area, campus-wide lab setting or other off-campus sites.
(Of-class field trips will be required for this class.)

E S 80 California Field Studies 1 Unit

E S 80X California Field Studies 2 Units

E S 80Y California Field Studies 3 Units

E S 80Z California Field Studies 4 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter).
Field observation of California’s native plants and animals in aquatic and terrestrial ecosystems with an emphasis on endangered, rare, protected and reintroduced species. The underlying social, economic and political issues associated with habitat and species loss will be discussed, as well as impacts on various cultural, ethnic and socio-economic groups.
(Of-field campus field trips may be required.)

E S 85A California Native Plants and Animals 2 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Two hours lecture (24 hours total per quarter).
Environmental education and interpretive methods focusing on the native plants and animals of California with an emphasis on local case studies and endangered species. Interpretive techniques utilized in environmental education will be reviewed.
Prepares students to lead tours of the Cheeseman Environmental Study Area (ESA), outdoor lab. Teaching environmental education and interpretive techniques to various ethnic, cultural and socioeconomic groups will be explored.
(Field project required.)

E S 85B Cheeseman Environmental Study 2 Units

Area Interpretive Training and Other Docent Activities
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
One hour lecture, three hours laboratory (48 hours total per quarter).
Interpretative techniques in environmental education and environmental outreach utilizing the Cheeseman Environmental Study Area outdoor lab and the Kirsch Center for Environmental Studies. Students will refine the techniques required for leading tours and interpreting California native plant and animal communities in the Environmental Study Area, as well as in any other outdoor settings. Students will lead tours through the Cheeseman Environmental Study Area and the Kirsch Center for Environmental Studies. Strategies for teaching environmental education and nature-based learning with various cultural, ethnic and socio-economic groups will also be explored.
(Of-campus field trips are required for this course.)

E S 86 Global Field Studies 4 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
Field observation of the native plants and animals of aquatic and terrestrial ecosystems of various new and old areas worldwide, including tropical regions of the Americas, with an emphasis on endangered, rare, protected and reintroduced species. Social, economic and political issues associated with habitat and species loss as well as the impacts on cultural, ethnic and socioeconomic groups will be explored.
(Field trip required. Note that this field studies class may require a trip abroad.)

E S 90 Environmental Research and Field Methods 4 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
Explores the various methods used to conduct research and field studies on environmental topics. Application of legal policy and field research principles and techniques, including review of local case studies. Preparation of press releases, reports on current environmental issues, persuasive oral advocacy of environmental topics and case law research.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
### Film and Television Production

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/TV 1</td>
<td>Introduction to Film</td>
<td>4</td>
<td>(See general education pages for the requirement this course meets.) Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture (48 hours total per quarter). An introduction to the international art of cinema through the techniques and procedures of filmmaking, including screenwriting, cinematography, directing, editing, and sound; through the formal properties of film, such as mise-en-scene, structure, style; through the relationships between film and society, and through the critical analysis of works of film art.</td>
</tr>
<tr>
<td>F/TV 2A</td>
<td>History of Cinema (1895-1950)</td>
<td>4</td>
<td>4 1/2 Units (See general education pages for the requirement this course meets.) (Students may enroll in either Film/Television 2A or Film/Television 2AW, but not both, for credit.) Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture for the four unit course (48 hours total per quarter); four and one-half hours lecture for the four and one-half unit course (54 hours total per quarter). A survey of the international development of the motion picture to 1950 as a distinct form of artistic expression, through classic films, notable artists, and key events; an investigation of the aesthetic, technological, economic, and social factors that contributed to the evolution of film; an examination of the value systems reflected in and shaped by these works from diverse cultures. F/TV 2AW will cover expanded topics in historiography, such as problems and approaches to historical film research and analysis.</td>
</tr>
<tr>
<td>F/TV 2B</td>
<td>History of Cinema (1950-Present)</td>
<td>4</td>
<td>4 1/2 Units (See general education pages for the requirement this course meets.) (Students may enroll in either Film/Television 2B or Film/Television 2BW, but not both, for credit.) Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture for the four unit course (48 hours total per quarter); four and one-half hours lecture for the four and one-half unit course (54 hours total per quarter). A survey of the international development of the motion picture picture to 1950 as a distinct form of artistic expression, through classic films, notable artists, and key events; an investigation of the aesthetic, technological, economic, and social factors that contributed to the evolution of film; an examination of the value systems reflected in and shaped by these works from diverse cultures. F/TV 2BW will cover expanded topics in historiography, such as problems and approaches to historical film research and analysis.</td>
</tr>
<tr>
<td>F/TV 2C</td>
<td>Contemporary World Cinema</td>
<td>4</td>
<td>4 1/2 Units (Formerly Film/Television 95A and 95AW respectively) (See general education pages for the requirement this course meets.) (Students may enroll in either Film/Television 2C or Film/Television 2CW, but not both for credit.) Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture for the four unit course (48 hours total per quarter); four and one-half hours lecture for the four and one-half unit course (54 hours total per quarter). Critical survey of contemporary world cinema as art, business, technology and cultural artifact. Provides critical methodology and practical tools for analyzing and interpreting the work of notable film artists, current international film movements and genres, and transnational and globalized media developments. F/TV 2CW will cover expanded topics in historiography, such as problems and approaches to historical film research and analysis.</td>
</tr>
<tr>
<td>F/TV 2D</td>
<td>Introduction to Electronic Media</td>
<td>4</td>
<td>4 Units (See general education pages for the requirement this course meets.) Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture (48 hours total per quarter). A survey course of the history, aesthetics, technology and social impacts of electronic media, including film, broadcasting and the Internet. Explores the role of government, advertising, audiences, and emerging technologies, their futures and impacts on global societies.</td>
</tr>
<tr>
<td>F/TV 3A</td>
<td>Film Genres</td>
<td>4</td>
<td>4 Units Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture (48 hours total per quarter). Analysis of selected national cinemas in terms of major periods, themes and formal parameters, and in relation to both national and international cultural histories. The national cinema studied changes each quarter (see subtitle in quarterly class schedule).</td>
</tr>
<tr>
<td>F/TV 3B</td>
<td>Film Artists</td>
<td>4</td>
<td>4 Units Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture (48 hours total per quarter). Analysis of the works of specific film artists, such as directors Alfred Hitchcock or Spike Lee; or analysis of the works of artists practicing a specific film craft, such as screenwriting, acting, cinematography or editing. The topic studied changes each quarter (see subtitle in quarterly class schedule).</td>
</tr>
<tr>
<td>F/TV 3C</td>
<td>History of Experimental Film/Video</td>
<td>4</td>
<td>4 Units Advisory: English Writing 1A or English as a Second Language 5. Four hours lecture (48 hours total per quarter). A survey of various experimental styles and practices in film and video, addressing the artists and historical developments of these media formats. The course situates experimental film and video work within the larger contexts of artistic traditions as well as networks of production and reception.</td>
</tr>
<tr>
<td>F/TV 3D</td>
<td>Cinema and the African American (An Historical Analysis of African Americans in American Cinema)</td>
<td>4</td>
<td>4 Units (See general education pages for the requirement this course meets.) Advisory: English Writing 1A or English as a Second Language 5. Also listed as Intercultural Studies 14 and English Literature 6. Students may enroll in only one department for credit.) Four hours lecture (48 hours total per quarter). A survey of the image and role of the American film industry. Particular attention will be given to the development of images of racial stereotypes, those works attempting a historical portrayal of the African American experience and the roles played by key African Americans in the evolution of film as an art and feature films as an industry in the United States.</td>
</tr>
<tr>
<td>F/TV 5A</td>
<td>Introduction to Film/Television Directing</td>
<td>4</td>
<td>4 Units Prerequisite: Film/Television 20. Co-requisite: Film/Television 50 students must also enroll in Film/Television 54, 54X, 54Y or 54Z. Three hours lecture, two hours lecture-laboratory (60 hours total per quarter). Development and execution of short, single-camera-style projects focusing on the skills of directing and editing.</td>
</tr>
</tbody>
</table>

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.