

MATH 205	Calculus/Analytic Geometry,Third Course	4
MATH 206	Calculus with Differential Equations	4
PHYS 230*	Principles of Physics	5
PHYS 231	Principles of Physics	5
PHYS 232	Principles of Physics	4
CHEM 110*	General Chemistry	3
CHEM 115*	General Chemistry	3
CHEM 110L*	General Chemistry Laboratory	2
CHEM 115L*	General Chemistry Laboratory	2

MINIMUM TOTAL UNITS 41

Recommended Elective: ENGR 100

* Courses marked with an asterisk may be used to fulfill General Education requirements. ENG 100, ENG 202, and BIOL 100 are highly recommended as electives to fulfill General Education requirements.

COURSE OFFERINGS

ENGR 100 Introduction to Engineering (1)
1 hour lecture

Transfer acceptability: CSU; UC

An overview of the engineering profession including not only the different engineering fields but also the specialized demands and rewards of each. It will afford the opportunity for community building among the students, who usually are otherwise isolated in the community college milieu. Group projects in the course will encourage socialization and human relations training in what is often perceived as a dry and dull profession. Academic success strategies will be explained and practiced; ethical concepts will be examined through case histories and practical applications.

ENGR 125 Engineering Graphics (3)
2 hours lecture-3 hours laboratory

Transfer acceptability: CSU; UC

Fundamental principles of orthogonal projection and their application to the solution of three dimensional problems arising in the various branches of engineering, free hand and instrumental working drawings, and graphic computations.

ENGR 126 Introduction to Electrical and Computer Engineering (4)

3 hours lecture-3 hours laboratory

Prerequisite: Math 140

Note: Cross listed as ECHT 126

Transfer acceptability: CSU

Introductory concepts covering a broad range of topics in Electrical and Computer Engineering presented in an integrated approach at a hands-on level. Students work in small teams to analyze, build, and test a small programmable robot for competition at the end of the semester. Provides basic understanding and skills for students to later build their theoretical understanding in more advanced physics and engineering courses.

ENGR 197 Engineering Topics (.5-5)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU

Topics in Engineering. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENGR 210 Electrical Network Analysis (3)
3 hours lecture

Prerequisite: Completion of, or concurrent enrollment in, both ENGR 210L and PHYS 231

Transfer acceptability: CSU; UC; CAN ENGR 12

Circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 210L Electrical Network Analysis Laboratory (1)
3 hours laboratory

Prerequisite: Completion of, or concurrent enrollment in, ENGR 210

Transfer acceptability: CSU; UC

Laboratory exercises of circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 231 Engineering Measurement Analysis (3)

2 hours lecture-3 hours laboratory

Prerequisite: MATH 140

Transfer acceptability: CSU; UC

Analysis and treatment of engineering data. Probability, statistics, error theory, correlation and regression analysis, dimensional analysis, data processing, and preparation of technical reports. Laboratory experiments in hydraulic flow, surveying, heat transfer, and static and dynamic test systems.

ENGR 235 Engineering Mechanics – Statics (3)

3 hours lecture

Prerequisite: PHYS 230 and MATH 140

Transfer acceptability: CSU; UC; CAN ENGR 8

Force systems and equilibrium conditions. Engineering problems covering structures, machines, distributed forces, and friction. Graphical and algebraic solutions, and vectorial analysis.

ENGR 236 Engineering Mechanics – Dynamics (3)

3 hours lecture

Prerequisite: ENGR 235

Transfer acceptability: CSU; UC

Fundamental principles of bodies in motion; kinetics and kinematics of particles; system of particles; central force; work and energy; linear and angular momentum; moments and products of inertia; vibrations and time response; engineering applications.

ENGR 245 Properties of Materials (3)

2 hours lecture-3 hours laboratory

Prerequisite: CHEM 110 and 110L

Transfer acceptability: CSU; UC; CAN ENGR 4

Physical properties of engineering materials. Atomic, molecular, and crystal lattice characteristics. Relations between these and mechanical, thermal, electrical, corrosion, and radiation properties. Metallic, ceramic, polymer, and agglomerate materials. Selection, treatment, and use of materials.

ENGR 295 Directed Study in Engineering (1,2,3)

3, 6, or 9 hours laboratory

Prerequisite: Approval of project or research by department chairperson

Note: May be taken 4 times

Transfer acceptability: CSU

Designed for the student who has demonstrated a proficiency in engineering subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

English (ENG)

Contact the English Department for further information, (760) 744-1150, ext. 2392

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

English

Focuses on the English language and literatures in English. Provides the background for students to succeed in diverse fields, such as advertising and marketing, teaching, journalism and telecommunications, law, technical writing, and business administration. Prepares students for upper division course work in English. For specific transfer requirements, the student should consult an academic counselor or the catalog for the school to which he or she wishes to transfer.

AA DEGREE MAJOR

Program Requirements	Units
ENG 205 and Introduction to Literature	3
ENG 202 or Critical Thinking /Composition	
ENG 203 Critical Thinking/Composition Through Literature	4
Literature Surveys (Select 9 Units) Of these nine units, students must take either a two-semester survey of British literature or a semester each of British and United States literature.	
ENG 210 Survey of British Literature I	3
ENG 211 Survey of British Literature II	3
ENG 220 Survey of World Literature I	3
ENG 221 Survey of World Literature II	3
ENG 225 Literature of the United States I	3
ENG 226 Literature of the United States II	3
Elective Courses (Select 2 courses) Any of the above courses not previously taken or pick from the following:	
ENG 135 Introduction to Creative Writing	4
ENG 136 Intermediate Creative Writing	4
ENG 137 The Literary Magazine: History/Production	4
ENG 215 Introduction to the British Novel	3
ENG 230 Introduction to the American Novel	3
ENG 240 Introduction to Classical Mythology	3
ENG 245 Survey of Biblical Literature	3
ENG 250 Introduction to Shakespeare	3
ENG 260 Literature Through Film	3
ENG 265 Science Fiction	3
ENG 270 Popular Literature	3
ENG 280 Women and Literature	3
TOTAL UNITS	22 - 24

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of 'C' or better. The student must participate in the English placement process before enrolling in any English or English as a Second Language composition class except ENG 10 and 150. The eligibility will indicate whether the student may enroll in ENG 50 or ENG 100. Students whose first language is not English may find, however, that ESL instruction meets their needs better than immediate enrollment in ENG 10 or 50. Such students may take one or more ESL classes (ESL 101, 102, 103) instead; then by again participating in the English placement process, they may qualify for ENG 50 or ENG 100. Non resident international students may be required to take one or more classes of English as a Second Language. Students should sign up for English assessment as soon as possible because some students may take three or more semesters to finish the competence in English. Please contact the Counseling Department for the English assessment schedule.

ENG 10 English Essentials (4)
4 hours lecture
Note: A grade of 'C' or better is required for eligibility for ENG 50
Offers basic instruction in grammar, usage, mechanics, sentence structure, and paragraph and essay development.

ENG 50 Introductory Composition (4)
4 hours lecture
Prerequisite: A minimum grade of 'C' in ENG 10 or eligibility determined through the English placement process
Note: A grade of 'C' or better is required for eligibility for ENG 100
A writing course for the student who wants to develop fundamental essay writing skills, acquire an A.A. degree, or enter a transfer program, but who needs further preparation in composition skills.

ENG 97 English Topics (.5-4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/labora-

tory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Topics in English. See class schedule for specific topic covered. Course title will designate subject covered.

ENG 100 English Composition (4)
4 hours lecture

Prerequisite: A minimum grade of 'C' in ENG 50 or eligibility determined through the English placement process

Note: May not be taken for Credit/No Credit grading

Transfer acceptability: CSU; UC; CAN ENGL 2

Practice in expository and argumentative writing based on analytical reading and critical thinking. Topics include methods of invention, organization and development, principles of basic research, and the elements of style.

ENG 135 Introduction to Creative Writing (4)
4 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 136 Intermediate Creative Writing (4)
4 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 137 The Literary Magazine: History and Production (4)
8 hours lecture/laboratory

Recommended preparation: Eligibility for ENG 100

Note: May be taken 4 times

Transfer acceptability: CSU

Historical examination of the genre of the literary magazine from the 18th century to the present, with an emphasis on the late 20th century. Also, after selecting and editing material for Palomar College's literary journal, Bravura, students will structure, format, produce, and distribute the magazine.

ENG 150 Introduction to Linguistics (3)
3 hours lecture

Note: Cross listed as ANTH 150

Transfer acceptability: CSU; UC

An introduction to the principles and practices of modern language study. Examines the origins and development of language, its social uses and implications, and its structure.

ENG 197 English Topics (.5-4)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU; UC – Credit determined by UC upon review of course syllabus.

Topics in English. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENG 202 Critical Thinking and Composition (4)
4 hours lecture

Prerequisite: A minimum grade of 'C' in ENG 100

Note: May not be taken for Credit/No Credit grading

Transfer acceptability: CSU; UC

Provides instruction and practice in methods of critical thinking and formal composition, emphasizing the following: awareness of language and its implications

through rhetorical and semiotic analysis based on systematic consideration of language in context; awareness of principles of classical argument in light of the traditions of rational thought. Students will be required to engage in both traditional and current methods of research through the use of information technology.

ENG 203 Critical Thinking and Composition Through Literature (4)

4 hours lecture

Prerequisite: A minimum grade of 'C' in ENG 100

Note: May not be taken for Credit/No Credit grading

Transfer acceptability: CSU; UC

Practice in writing essays about literature with emphasis on critical thinking, reading, and writing skills; principles of inductive and deductive reasoning; the relationship of language to logic; analysis, criticism, and advocacy of ideas; methods of research; advanced elements of style and organization.

ENG 205 Introduction to Literature (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC; CAN ENGL 4

An introduction to fiction, poetry, drama, and other genres in literary form. Students will read and discuss assigned selections from various literary genres and examine themes, language, forms, techniques, and other strategies that influence the production and reception of literature.

ENG 210 Survey of British Literature I (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC; CAN ENGL 8; ENG 210+211=CAN ENGL SEQ B

A study of the significant texts in British literature from the Middle Ages to the Eighteenth Century; considers a variety of authors, literary genres and trends, as well the historical and cultural contexts of the literary texts.

ENG 211 Survey of British Literature II (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC; CAN ENGL 10, ENG 210+211= CAN ENGL SEQ B

A study of significant texts in British literature from the Romantic period to the present. Considers a variety of authors, literary genres and trends, as well as the historical and cultural contexts of the literary texts.

ENG 215 Introduction to the British Novel (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

A study of the British novel through reading such writers as Aphra Behn, Daniel Defoe, Laurence Sterne, Samuel Richardson, Fanny Burney, Jane Austen, Mary Shelley, Charlotte Bronte, Emily Bronte, Wilkie Collins, Charles Dickens, George Eliot, Thomas Hardy, Joseph Conrad, Virginia Woolf, James Joyce, Jean Rhys, Chinua Achebe, Salman Rushdie.

ENG 220 Survey of World Literature I (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

A survey of the major literature of Africa, the Americas, Asia and Europe from ancient times to about 1600. A comparative study of literary themes and expression will be pursued.

ENG 221 Survey of World Literature II (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

A survey of the major literatures of Europe, Asia, the Americas, Africa, and Australia from about 1600 to the present. A comparative study of literary themes and influences will be pursued.

ENG 225 Literature of the United States I (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC; CAN ENGL 14

Significant texts written in the territories that would become the United States, from the pre-colonial period to the Civil War; considers a variety of literary genres and trends, with a focus on such issues as the interaction of texts and history, the expansion and politics of the literary canon, and the influence of the cultural contexts in which the literature of the United States is written and interpreted.

ENG 226 Literature of the United States II (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

Significant texts written in the United States from the Civil War to the present; considers a variety of literary genres and trends, with a focus on such issues as the interaction of texts and history, the expansion and politics of the literary canon, and the influence of the cultural contexts in which the literature of the United States is written and interpreted.

ENG 230 Introduction to the American Novel (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

A study of the development of the American novel through reading such writers as Nathaniel Hawthorne, Louisa May Alcott, Herman Melville, Mark Twain, Henry James, Elizabeth Stewart Phelps, Kate Chopin, William Faulkner, Ernest Hemingway, Nella Larsen, Bernard Malamud, Zora Neale Hurston, Willa Cather, Ralph Ellison, Thomas Pynchon, Toni Morrison, Maxine Hong Kingston, Louise Erdrich, and James Baldwin.

ENG 240 Introduction to Classical Mythology (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

A study of the meaning and function of myth in the classical literature of Ancient Greece and Rome. Read translations of representative epic, poetic, and dramatic literature of Hesiod, Homer, Aeschylus, Sophocles, Euripides, Aristophanes, Vergil, and Ovid. An examination of the cultures which helped shape the literature and values with us today.

ENG 245 Survey of Biblical Literature (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

An introduction to the study of the Bible in English as an anthology of literary types and genres: stories, poetry, proverbs, gospels, parables, epistles, satire, and visionary literature.

ENG 250 Introduction to Shakespeare (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Transfer acceptability: CSU; UC

Introduction to the life, times, background, poems, and plays of William Shakespeare.

ENG 255 Literature and Ideas (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100

Note: Cross listed as PHIL 255; may be taken 2 times

Transfer acceptability: CSU; UC

An introduction to selected major philosophical ideas, questions, and attitudes in significant literature of the world, from the ancient world to the present. The course will trace treatment of a thematic idea through literature of particular times and cultures. Recommended for English and Philosophy majors, and for those interested in broadening their background in the humanities.

ENG 260 Literature Through Film (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100**Note:** May be taken 2 times**Transfer acceptability:** CSU; UC – max credit, one course

Analysis of the expectations and conventions used in literature -- novels, short stories, dramas -- and how those expectations and conventions are affected when they are translated into film. Critical analysis of the various works and comparison/contrast of the different interpretations of these ideas will be stressed.

ENG 265 Science Fiction (3)

3 hour lecture

Prerequisite: Eligibility for ENG 100**Note:** Graded only**Transfer acceptability:** CSU; UC

An introduction to science fiction - its major authors and stories, themes, trends, and cultural impact.

ENG 270 Popular Literature (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100**Note:** Graded only; may be taken 2 times**Transfer acceptability:** CSU; UC – max credit, one course

An introduction to one genre of popular literature such as science fiction, fantasy, detective fiction, war fiction, humor, or western literature using short stories and novels, and how these works are affected by the expectations, and conventions of the genre in which the author is writing.

ENG 280 Women and Literature (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100**Transfer acceptability:** CSU; UC

Examines from a multicultural perspective women's relationship to literature. Examines what it means to be a "woman" writer, exploring historical and cultural conditions that have shaped women's relationship to literature. Explores gender stereotypes in literature by and about women and analyzes the ways in which women writers engage with, resist, and/or subvert dominant ideas about gender in literature.

ENG 290 Comic Books as Literature (3)

3 hours lecture

Prerequisite: Eligibility for ENG 100**Transfer acceptability:** CSU; UC

An analysis of the comic book in terms of its unique poetics (the complicated interplay of word and image); the themes that are suggested in various works; the history and development of the form and its subgenres; and the expectations of comic book readers. Examines the influence of history, culture, and economics on comic book artists and writers. Explores definitions of "literature," how these definitions apply to comic books, and the tensions that arise from such applications.

ENG 295 Directed Study in Literature (1,2,3)

3, 6, or 9 hours laboratory

Prerequisite: Eligibility for ENG 100**Note:** May be taken 2 times**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Independent study for students who have demonstrated skills and/or proficiencies in English subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

English as a Second Language (ESL)

Contact the English as a Second Language Department for further information, (760) 744-1150, ext. 2272

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of 'C' or better.

Students whose first language is not English are advised to participate in an English placement process given by the English as a Second Language Department before enrolling in any English or English as a Second Language class. The assessment process will determine which level is appropriate for the student.

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.

Courses numbered under 100 are not intended for transfer credit.

The following courses are for students whose first language is not English.

ESL 1 Beginning ESL I (1, 1.5, 2, 2.5, 3, 3.5, 4)

3, 4.5, 6, 7.5, 9, 10.5, or 12 hours lecture/laboratory

Prerequisite: Eligibility established through the English as a Second Language placement process.

Listening, speaking, reading, and writing skills for non native speakers of English at the low-beginning level.

ESL 2 Beginning ESL II (1, 1.5, 2, 2.5, 3, 3.5, 4)

3, 4.5, 6, 7.5, 9, 10.5, or 12 hours lecture/laboratory

Prerequisite: A minimum grade of 'C' in ESL 1 or eligibility determined through the English as a Second Language placement process.

Listening, speaking, reading, and writing skills for non-native speakers of English at the mid-beginning level.

ESL 3 Beginning ESL III (1, 1.5, 2, 2.5, 3, 3.5, 4)

3, 4.5, 6, 7.5, 9, 10.5, or 12 hours lecture/laboratory

Prerequisite: A minimum grade of 'C' in ESL 2 or eligibility determined through the English as a Second Language placement process.

Listening, speaking, reading, and writing skills for non-native speakers of English at the high-beginning level.

ESL 9 English Pronunciation I (3)

3 hours lecture

Development of students' ability to identify and replicate English intonation, stress patterns, and certain common word combinations as they are pronounced in informal speech.

ESL 10 English Pronunciation II (3)

3 hours lecture

Identifies standard spoken American English intonation, stress and rhythm sounds. Provides practice to retrain the speech organs to produce those sounds. Emphasis on self correction of speech problems.

ESL 15 Grammar Skills for ESL Writers I (3)

3 hours lecture

Instruction in editing of written material by applying conventions of standard written English.

ESL 16 Grammar Skills for ESL Writers II (3)

3 hours lecture

Instruction in editing of written material by applying conventions of standard written English.

ESL 20 Academic Speaking for ESL (3)

3 hours lecture

Recommended preparation: A minimum grade of 'C' in ESL 3 or eligibility determined through the English as a Second Language placement process.

Develops speaking skills necessary for non-native speakers of English to have successful oral communication in the college environment. This class emphasizes linguistic and interpersonal skills in order for participation in discussions and performance of tasks in personal, academic, and formal or informal situations. Vocabulary, conversation strategies, and presentation techniques introduced within interesting and meaningful contexts.