Mathematics
Announcement of Courses

For “Business Mathematics” see “Business.”

Enrolling in Mathematics Courses
To be eligible to enroll in any mathematics course at or above the level of prealgebra (MATH 835), a student must have passed MATH E or have received a CCSF placement of MATH 835 or higher.
In addition, before enrolling in any mathematics course at or above the level of applied geometry (MATH 850) or geometry (MATH 855), a student should first take the Algebra Skills Placement Examination and then consult with a mathematics advisor or counselor.

Finally, before enrolling in a particular course, a student must have satisfied the prerequisites for that course.

CREDIT, NON-DEGREE APPLICABLE COURSES:

MATH E. Basic Mathematics with Problem Solving (2)
Conf-2
Not open for credit for students who have achieved a satisfactory score on the City College placement examination in mathematics.

Students who pass MATH E have satisfied the City College graduation requirement in mathematics.

Fundamental concepts and processes of arithmetic, translating English statements to arithmetic statements, and solving practical applications.

MATH RS1. Basic Math Placement Test Review (0)
Lec-5 (tot.)
A brief review of mathematical concepts covered on the City College Basic Mathematics (Arithmetic) Placement Test, including arithmetic operations, fractions, decimals, percents and applications. Offered to students who are planning to take the Basic Mathematics (Arithmetic) Placement Test.

MATH RS2. Algebra Placement Test Review (0)
Lec-6 (tot.)
A brief review of mathematical concepts covered on the City College Algebra Placement Test, including algebraic expressions, polynomials, rational expressions, equations, exponents and radicals, systems of equations, graphing linear equations, and functions. Offered to students who are planning to take the Algebra Placement Test.

MATH S. Elementary Algebra Workshop (2)
Conf-4
Coreq.: MATH 840

MATH T. Applied Geometry Workshop (2)
Conf-3
Coreq.: MATH 850

MATH U. Intermediate Algebra Workshop (2)
Conf-3
Coreq.: MATH 860

CREDIT, DEGREE APPLICABLE COURSES:

MATH 835. Prealgebra (3)
Lec-3, conf-2
Prereq.: MATH E or placement in MATH 835 or 840
Recommended for students who need additional preparation before taking MATH 840 or introductory courses in chemistry, physics, engineering technology, economics, or business.
Brief review of basic mathematics; measurement systems (English and metric); prealgebra topics (order of operations, signed numbers, integer exponents, square roots, simple equations and formulas, proportions); geometry topics (length, area, volume, similarity); calculator usage, estimation, and number sense; introduction to probability and statistics; applications.

MATH 840. Elementary Algebra (3)
Lec-5
Prereq.: MATH E or 835 or placement in MATH 840
Fundamental operations on integers, rational numbers, polynomials, and algebraic expressions; linear and quadratic equations; linear inequalities; integer exponents and square roots; graphing; systems of equations; and applications.

The Mathematics Department offers two geometry courses:
1. MATH 850 emphasizes problem solving and applications, and
2. MATH 855 emphasizes proofs and the logical structure of geometry but includes problem solving and applications. Students intending to study calculus should take MATH 855.

MATH 850. Applied Geometry (2)
Lec-3
Prereq.: MATH 840 or placement in MATH 850
Not open for credit to students who have passed MATH 855.
Standard results of geometry; calculations involving lines, triangles, polygons, circles, and solids; emphasis on applications.

The distinction between the two geometry courses is explained in the paragraph immediately preceding the course description for MATH 850.
MATH 855. Geometry (3)
Lec-5
Prereq.: MATH 840 or placement in MATH 855 by examination and advising
Lines, triangles, circles, polygons, geometric constructions, space geometry. Emphasis on proving theorems and on the logical structure of geometry.

MATH 860. Intermediate Algebra (4)
Lec-4, conf-1
Prereq.: MATH 840 and MATH 850 or 855; or placement in MATH 860
Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; distance formula, lines, circles, parabolas; introduction to functions and graphs; introduction to exponential and logarithmic expressions; applications.

MATH 70. Mathematics for Liberal Arts Students (3)
Lec-3
Prereq.: MATH 860 and MATH 850 or 855; or placement in MATH 70
Advis: Eligible for ENGL 90 or ESL 72.
Not open for credit to students who have passed MATH 110A or MATH 100A.
Concepts of mathematics for students with nontechnical goals. Range of topics from various branches of mathematics. The role of mathematics in modern society. CSU

MATH 75. Mathematical Analysis for Business (3)
Lec-3
Prereq.: MATH 92 or 860
Students completing MATH 860 should also complete MATH 90 before taking MATH 75.
Sets, lines, parabolas, functions and graphs, mathematics of finance, introduction to differential and integral calculus of functions of one variable, with applications to business and economics. CSU/UC

MATH 79. Using a Graphics Calculator (2)
Lec-1, conf-1
CR/NC only
Prereq.: MATH 860
Designed to enable students to use a hand-held programmable graphics calculator in their mathematics, engineering, and science courses.
Evaluating expressions, solving equations, graphing equations, and analyzing graphs of functions. Using technical documentation. CSU

MATH 80. Probability and Statistics (4)
Lec-4
Prereq.: MATH 92 or 860

MATH 90. Advanced Algebra
Lec-3
Prereq.: MATH 860 and MATH 850 or 855; or placement in MATH 90
Not open for credit to students who have passed MATH 92.
Geometric transformations and conic sections; real functions and their graphs; one-to-one and inverse functions; roots of polynomials; linear systems and matrices; topics in discrete mathematics. CSU

MATH 92. College Algebra (5)
Lec-5
Prereq.: Math 840 and Math 850 or 855; or placement in MATH 92
Recommended for students with strong mathematics capabilities.
Not open for credit to students who have passed MATH 90.
Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; distance formula, lines, and circles; geometric transformations and conic sections; real functions and their graphs; one-to-one and inverse functions; roots of polynomials; linear systems and matrices; topics in discrete mathematics. CSU

MATH 95. Trigonometry (3)
Lec-3
Prereq.: MATH 92 or 860; and Math 850 or 855
Students completing MATH 860 should also complete MATH 90 before taking MATH 95.
Circular (trigonometric) functions, identities, and equations; graphs of circular functions; arcfunctions (inverse trigonometric functions); triangles; complex numbers. CSU/CAN

MATH 97. Precalculus (5)
Lec-5
Prereq.: MATH 95; MATH 90 or 92; and MATH 850 or 855
An intensive, comprehensive review for students who have successfully completed trigonometry and advanced algebra but need review before beginning a calculus course. Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; distance formula, lines, and circles; geometric transformations and conic sections; real functions and their graphs; one-to-one and inverse functions; roots of polynomials; circular (trigonometric) functions, identities, and equations; graphs of circular functions; arcfunctions (inverse trigonometric functions); triangles; linear systems and matrices; topics in discrete mathematics. CSU/CAN/CAN

The Mathematics Department offers two calculus sequences:
1. MATH 100A-100B is intended for students majoring in business, technology, social sciences, or life sciences and
2. MATH 110A-110B-110C is intended for students majoring in mathematics, computer science, engineering, or physical sciences.

It is each student's responsibility to determine which calculus sequence is appropriate for his or her academic program.
MATH 100A. Calculus (3)
Lec-3
Prereq.: MATH 95; MATH 90 or 92; and MATH 850 or 855
Lines, algebraic functions, exponential functions, logarithmic
functions, limits, derivatives, and integrals, with applications.
CSU/UC/CAN

MATH 100B. Calculus (3)
Lec-3
Prereq.: MATH 100A
Calculus of trigonometric functions, techniques of integration,
Taylor polynomials, multivariable calculus, and differential
equations, with applications. CSU/UC/CAN
The distinction between the two calculus sequences is explained
in the paragraphs immediately preceding the course description
for MATH 100A.

MATH 110A. Calculus I (4)
Lec-4, conf-1
Prereq.: MATH 95; MATH 90 or 92; and MATH 850 or 855
Functions and graphs, geometric transformations, conic sections;
limits, continuity, differentiation, and integration of algebraic
and circular functions, with applications. CSU/UC/CAN

MATH 110B. Calculus II (4)
Lec-4, conf-1
Prereq.: MATH 110A
Differentiability of inverse functions; transcendental functions;
indeterminate forms; integration techniques, numerical integra-
ation, improper integrals; polynomial approximation; sequences
and series; power series; plane vectors, parametrized curves,
polar coordinates. CSU/UC/CAN

MATH 110C. Calculus III (4)
Lec-4, conf-1
Prereq.: MATH 110B
Space vectors, vector functions; partial differentiation; scalar
and vector fields, vector differential operators; multiple integra-
tion, Jacobians; line integrals, path independence, and scalar
potentials; surface integrals; theorems of Green, Stokes, and
Gauss. CSU/UC/CAN

MATH 115. Discrete Mathematics (3)
Lec-3
Prereq.: MATH 110B or 100B
Set theory, logic, relations and functions, mathematical in-
duction and recursion, combinatorics, discrete probability,
trees and graphs, analysis of algorithms, algebraic structures.
Emphasis on topics of interest to computer science students.
CSU/UC

MATH 120. Linear Algebra (3)
Lec-3
Prereq.: MATH 110C
Systems of linear equations, matrix algebra, determinants,
vector spaces, linear transformations, eigenvalues and eigen-
vectors. CSU/UC/CAN

MATH 125. Differential Equations (3)
Lec-3
Prereq.: MATH 110C
Ordinary differential equations, existence and uniqueness of
solutions, linear differential equations, systems of differential
equations, series solutions, Fourier series, partial differential equations. CSU/UC/CAN

MATH 130. Linear Algebra and Differential Equations
(5)
Lec-5
Prereq.: MATH 110C
Systems of linear equations, matrix algebra, determinants,
vector spaces, linear transformations, eigenvalues and eigen-
vectors. Ordinary differential equations, existence and unique-
ess of solutions, linear differential equations, systems of dif-erential equations, series solutions, Laplace transforms, Fourier series, partial differential equations. CSU/UC

MATH 199. Special Topics in Mathematics (3)
Lec-3
CR/NC avail.
Prereq.: Varies with course content
Repeat: max. 9 units
The content of this course varies. CSU/UC

Military Science
The University of San Francisco is part of the Consortium of
San Francisco Colleges and Universities. Students attending a
member of the consortium may enroll in a Military Science
course at the University of San Francisco under that agreement
at no cost. Full credit will be given by City College of San
Francisco to fully enrolled students. Specific inquiries about
this program should be directed to the Professor of Military
Science, University of San Francisco.

Multimedia Studies
See Interdisciplinary Studies

Music
Announcement of Courses
All music students are encouraged to enroll in at least one of
the Music Department performing groups each semester.
Knowledge of music fundamentals and the ability to read
music are recommended for many music theory, instrumental
and vocal training, and performance courses. Where a music
course has a sequential prerequisite, check with the Depart-
ment Head for skill demonstration equal to the prerequisite.

CREDIT, DEGREE APPLICABLE COURSES

Music Theory
The MUS 2A-2B-2C-2D series is a four-semester comprehensive
teaching program for music students which will transfer as fulfillment
of the first two years of lower-division music theory require-
ments. The MUS 1A-1B, 3A-3B series is a two-semester ear-
training and harmony program for music students which will
transfer as fulfillment of one year of lower-division music
theory requirements.
MUS 1A-1B. Musicianship (2-2)
Lec-3, lab-1, field trips CR/NC avail.
Advisory: MUS 1A: MUS 4 or demonstration of exit skills
Repeat: max. 4 units ea.
Development of skills in sight reading, ear training, and notation through the study of scales, intervals, and simple songs. CSU/UC

MUS 2A-2B. Comprehensive Music Theory (5-5)
Lec-5, lab-1, field trips CR/NC avail.
Advisory: MUS 4 or demonstration of MUS 4 exit skills
May be taken in any sequence.
The first half of a four-semester comprehensive approach to the chronological study of music theory. Covers music in the style of the medieval, renaissance and baroque eras. Daily sessions involve modal, contrapuntal or harmonic studies and exercises, ear training and musical analysis with the goal of integrating these studies in reference to historical periods. Extensive written assignments are required. CSU/UC

MUS 2C-2D. Comprehensive Music Theory (5-5)
Lec-5, lab-1, field trips CR/NC avail.
Advisory: MUS 4 or demonstration of MUS 4 exit skills
May be taken in any sequence.
The second half of a four-semester comprehensive approach to the chronological study of music theory. Covers music in the style of the classic, romantic and modern eras. Daily sessions involve modal, contrapuntal or harmonic studies and exercises, ear training and musical analysis with the goal of integrating these studies in reference to historical periods. Extensive written assignments are required. CSU/UC

MUS 3A-3B. Harmony (3-3)
Lec-3, lab-1, field trips CR/NC avail.
Advisory: MUS 3A: MUS 4 or demonstration of MUS 4 exit skills
A music-writing course based on traditional harmony, including linear and vertical analysis. CSU/UC

MUS 4. Music Fundamentals (2)
Lec-3, lab-1, field trips CR/NC avail.
Repeat: max. 4 units
An introduction to basic skills in music, including staff notation, rhythmic notation, intervals, scales, chord construction, sight reading, and ear training. CSU/UC

MUS 5A-5B. Composition (3-3)
Lec-3, field trips CR/NC avail.
Advisory: MUS 5A: MUS 3A or demonstration of exit skills
Study of the principles of musical composition through analysis and creative writing. Pieces may be composed for piano and/or small instrumental and/or vocal ensembles. CSU/UC

Instrumental and Vocal Training
MUS 6A. Elementary Classical Guitar (1)
Lec-3, field trips CR/NC avail.
Advisory: MUS 4 or demonstration of exit skills
Repeat: max. 2 units
No prior experience with the guitar necessary. The student must provide a guitar.
An introduction to the music and technique of the acoustical guitar. A foundation with emphasis on classical techniques. Some review of musical theory. CSU/UC

MUS 6B. Intermediate Classical Guitar (1)
Lec-3, field trips CR/NC avail.
Advisory: MUS 6A or demonstration of exit skills
Repeat: max. 4 units
A continuation of MUS 6A. Further study of acoustical guitar theory, technique, and repertoire with emphasis on classical guitar. CSU/UC

Music 7 Series
(The letter after the 7 indicates the instrument, not the sequence.)
The Music Department recommends that students enrolling in any of the courses in the Music 7 series enroll concurrently in appropriate music performance courses such as concert band (MUS 16), stage band (MUS 46), pep band (MUS 47), orchestra (MUS 15), string ensemble (MUS 20), brass ensemble (MUS 18), or woodwind ensemble (MUS 17).

MUS 7C. Cello (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
An exploration of the elements of cello playing, including bowing concepts and techniques, tone production, and left-hand techniques. Open to beginners as well as to others at any level of proficiency. CSU/UC

MUS 7P. Percussion (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
The study and technique of playing various percussion instruments. CSU/UC

MUS 7T. Brass (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Basic brass techniques for intermediate or advanced players. Embouchure problems, breathing methods, and tone production. CSU/UC

MUS 7V. Violin and Viola (1)
Lec-3, field trips CR/NC avail.
Advisory: MUS 4
Repeat: max. 4 units
Violin or viola training for beginning, intermediate, and advanced players. CSU/UC

MUS 7W. Woodwind (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
The study and techniques of playing various woodwind instruments. CSU/UC
MUS 8A-8B. Jazz and Other Popular Piano Styles (1-1)
Lec-3, field trips CR/NC avail.
Advised: MUS 9A or demonstration of MUS 9A exit skills
A study of basic jazz, rock, gospel, blues, and folk piano techniques. CSU/UC

MUS 9A. Beginning Piano (2)
Lec-3, lab-1, field trips CR/NC avail.
Repeat: max. 4 units
Piano studies for the beginner, including playing through reading, elementary theory, beginning ear training, and an historical view of keyboard instruments and their music. CSU/UC

MUS 9B. Intermediate Piano (1)
Lec-3, field trips CR/NC avail.
Advised: MUS 9A or demonstration of MUS 9B exit skills
Repeat: max. 4 units
A continuation of piano training for beginning, intermediate, and advanced pianists. CSU/UC

MUS 9C. Keyboard Harmony (1)
Lec-3, field trips CR/NC avail.
Advised: MUS 9A or demonstration of MUS 9A exit skills
Repeat: max. 4 units
The development of harmonic keyboard skills through the study and practice of chord structures, progressions, and sight reading techniques. CSU/UC

MUS 10 Series
The Music Department recommends that students enrolling in the MUS 10 series should enroll concurrently in a choral-performing group (MUS 12 or 14) or Music Theatre Workshop (MUS 44).

MUS 10A. Beginning Voice (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 2 units
Study of the basic techniques of tone production, breathing, and related skills in interpreting vocal music of various periods and styles, including popular. CSU/UC

MUS 10B. Intermediate Voice (1)
Lec-3, field trips CR/NC avail.
Advised: MUS 10A or demonstration of MUS 10A exit skills
Repeat: max. 4 units
A continuation of vocal training for intermediate and advanced singers. Emphasis on the development of vocal techniques and the interpretation of songs of various styles and periods. CSU/UC

Performance Courses
MUS 11. Guitar Workshop (1)
Lec-3, field trips CR/NC avail.
Advised: MUS 6A or demonstration of MUS 6A exit skills
Repeat: max. 4 units
An opportunity for guitarists to learn and to play ensemble music from all stylistic periods—Renaissance, Baroque, Classical, Romantic, and especially twentieth century. An opportunity to play in guitar duos, trios, quartets, and, when possible, with other instruments. CSU/UC

MUS 12. Choir (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Study and performance of fine choral music, sacred and secular, from all periods of music history. CSU/UC

MUS 13A. Jazz/Rock Improvisational Workshop (2)
Lec-3, field trips CR/NC avail.
Repeat: max. 8 units
Study of a variety of jazz, rock, and blues styles. Emphasis on learning the techniques of arranging and composing. CSU/UC

MUS 13B. Jazz/Rock Arranging and Composition Workshop (2)
Lec-3, field trips CR/NC avail.
Advised: MUS 3A or demonstration of MUS 3A exit skills
Repeat: max. 8 units
Study of a variety of jazz, rock, and blues styles. Emphasis on learning the techniques of arranging and composing. CSU/UC

MUS 14. Chorale (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Study and performance of choral music for small ensembles. Public performances both on and off campus. CSU/UC

MUS 15. Orchestra (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
An opportunity for string, woodwind, brass, and percussion players to rehearse and perform works selected from the standard repertory from the baroque through the present. CSU/UC

MUS 16. Concert Band (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Study and performance of concert band and wind ensemble literature of various stylistic periods. CSU/UC

MUS 17. Woodwind Ensemble (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Study and performance of woodwind ensemble techniques of all stylistic periods. CSU/UC

MUS 18. Brass Ensemble (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Study and performance of brass ensemble techniques of all stylistic periods. CSU/UC

MUS 19. Piano Ensemble and Repertoire (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
Performance of four-hand, two-piano, and solo literature from all stylistic periods. Study of accompanying skills and use of these whenever possible in performances. Monthly public recitals. CSU/UC
MUS 20. String Ensemble (1)
Lec-3, field trips CR/NC avail.
Repeat: max. 4 units
An exploration of techniques and ensemble literature appropriate for intermediate and advanced violinists, violoncellists, and string bass players. Performances may be scheduled. CSU/UC

Music Surveys

MUS 21. Traditional African Music (3)
Lec-3, field trips CR/NC avail.
A survey of the function of traditional music in Africa and how it is organized as an integral part of everyday activity. Emphasis is on practical application. CSU/UC

MUS 22A-22B-22C. History of Music in Western Culture (3-5-3)
Lec-3, lab-1, field trips CR/NC avail.
May be taken in any sequence.
An intensive critical survey of musical styles in Western culture studied chronologically. Emphasis on works and composers representative of differing styles and periods and on various cultural contexts from which they emerged. CSU/UC MUS 22A.
Medieval and Renaissance music: early Christian chant to 1600
MUS 22B. Baroque and Classical music: the seventeenth and eighteenth centuries MUS 22C. Nineteenth Century Romanticism: Beethoven to Mahler
For music of the twentieth century, see MUS 28.

MUS 23. Jazz History, Musical Traditions of the African American (3)
Lec-3, lab-1, field trips CR/NC avail.
Lectures, discussions, assigned reading, and listening designed to explore the musical heritage of the African American, including spirituals, work songs, blues, jazz, gospel, opera, and symphony. Interaction of these with traditional American and European music. CSU/UC

MUS 24. Music of East Asia (3)
Lec-3, lab-1, field trips CR/NC avail.
A cross-cultural, comparative survey of both historical and recent developments in the music of China, Japan, and Korea, including the relationship of East Asian music to other aspects of East Asian cultures—philosophy, religion, theater, and dance. CSU/UC

MUS 25. Music of Latin America and the Caribbean (3)
Lec-3, lab-1, field trips CR/NC avail.
Survey of Latin American and Caribbean music. Music as a form of communication and as a social and cultural force in the Americas. CSU/UC

MUS 26. Music in American Culture (3)
Lec-3, lab-1, field trips CR/NC avail.
A survey of music generated by America’s diverse populations including Latino, African American, Hawaiian, Native American, Cajun and Puerto Rican. CSU/UC

MUS 27A. Music Appreciation (3)
Lec-3, lab-1, field trips CR/NC avail.
The development of increased musical awareness in the listener. A study of musical elements, forms, and styles through listening, lectures, readings, and discussions. CSU/UC

MUS 27B. Musical Awareness (3)
Lec-3, lab-1, field trips CR/NC avail.
MUS 27A is not prerequisite for MUS 27B.
Repeat: max. 9 units
Detailed study of selected larger musical forms such as the opera, symphony, concerto, and chamber works. Assigned listening and readings. CSU/UC

MUS 27C. Music and Queer Identity (3)
Lec-3, field trips CR/NC avail.
Examination of the question of how music encodes queerness by focusing on various musical styles and musical performers that have become significant for the lesbian, gay and bisexual community. CSU

MUS 27T. Exploring the World of Music (2)
Lec-1.5, field trips CR/NC avail.
Designed to develop an understanding and recognition of musical elements and forms while promoting a broad international cultural music awareness. The series allows students to examine theories on the origins of music making and the role of music in all cultures. Music structure will be studied with an emphasis on how music inspires human emotion, activity, romance, religion and play. CSU/UC

MUS 28. Contemporary Music (3)
Lec-3, lab-1, field trips CR/NC avail.
Study of the music of the twentieth century through analysis of their means and methods, recordings illustrating the types of music under discussion and creative projects involving graphic scores, tapes and new instruments. CSU/UC

MUS 29. Electronic Music (3)
Lec-3, lab-1, field trips CR/NC avail.
A practical study of the means by which electronic music is created, its compositional techniques, and the uses to which it may be put. CSU/UC

MUS 30. Electronic Music Laboratory (2)
Lec-3, lab-3, field trips CR/NC avail.
Prereq.: MUS 29 or IDST 120
Repeat: max. 8 units
The content of this course varies. Students may re-enroll without repeating subject matter. Further practical study of the technical aspects of electronic music, including compositional techniques of synthesis, multitrack recording and digital sequencing. CSU/UC

MUS 31. Digital Music Studio (3)
Lec-3, lab-2, field trips CR/NC avail.
Prereq.: MUS 30A
Repeat: max. 6 units
Practical study of the digital music studio, including the functions of hardware and software tools for composition, sequencing, notation, and digital audio recording. Creation and editing digital music files and exploration of current practical application of the medium. CSU
Other Music Performance Courses

MUS 41. African Drumming Ensemble (1)
Lec-3, field trips
Repeat: max. 4 units
The content of this course varies. Students may re-enroll without repeating subject matter. African drumming studies and performance of music integral to everyday life in Africa. A review of the function of traditional music in Africa. CSU/UC

MUS 42. Jazz, Pop, Gospel Choir (1)
Lec-3, field trips
Prereq.: Satisfactory audition of basic choral abilities
Repeat: max. 4 units
Study and performance of popular, gospel, or jazz and swing choir arrangements with rhythm section. CSU/UC

MUS 43. Labor Heritage Chorus (1)
Lec-3, field trips
Repeat: max. 4 units
Study and performance of labor songs from various periods in American history. Songs that reflect workers of diverse cultures, such as Native American chants, folk and labor ballads, field hollers, Black cowboy songs, Chicano farm and border songs, labor Motown, Asian American work songs and working women's rap. CSU
MUS 43 = LABR 93C

MUS 44. Music Theatre Workshop (3)
Lec-6, field trips
Repeat: max. 9 units
An opportunity for students interested in musical theatre to study, rehearse, and participate in performances of musical works for the stage. Equal emphasis given to the musical and dramatic elements involved in such productions. For staged, public performances, roles may be assigned subject to audition. CSU/UC

MUS 45. Early Music Performance Workshop (2)
Lec-3, lab-1, field trips
Repeat: max. 8 units
An investigation of musical performance styles from the late Middle Ages through the Baroque. Students work and perform in an area of their choice. CSU/UC

MUS 46. Stage Band (1)
Lec-3, field trips
Repeat: max. 4 units
Reading, preparation, and playing of music arranged for dance bands, with emphasis on jazz. CSU/UC

MUS 47. Pep Band (1)
Lec-3, field trips
Repeat: max. 4 units
Rehearsal band for music of all popular styles. Performances at various athletic events. CSU

MUS 50. Music Rehearsal and Performance (1)
Lec-3
Coreq.: Enrollment in a music instrumental or performance course
Repeat: max. 4 units
An opportunity for students who are enrolled in music courses requiring extra performance and rehearsal hours to receive credit for their work. CSU/UC

Nursing, Registered (RN)
Announcement of Curriculum

Degree Curriculum
The Associate in Science curriculum in Nursing is accredited by the California Board of Registered Nursing (BRN). Students who complete the course of study in accordance with City College requirements are eligible to take the National Council Licensure Examination of Registered Nurses (NCLEX-RN). Those who pass the NCLEX-RN are qualified for entry-level positions of R.N. in health facilities and agencies.

NOTE: The licensing process for becoming a registered nurse in California is handled by the BRN. The BRN requires disclosure of all misdemeanor and felony convictions for all license applicants and disclosure of all disciplinary actions taken against a license applicant who already has a practical nurse, vocational nurse or other professional license. Fingerprinting is also required. Persons considering enrollment in the Nursing Department may contact the BRN in advance of considering the Nursing program to learn whether a previous conviction or disciplinary record will prevent licensing to practice nursing.

Course of Study. The Nursing course of study includes instruction in applied nursing science and related life sciences, and clinical experience in San Francisco Bay Area cooperating clinical settings. The required course of study for Nursing includes courses that may also satisfy certain general education requirements.

Associate in Science Degree. The Nursing curriculum, supplemented by general education courses, is designed so that students may satisfy the requirements for graduation from City College with the degree of Associate in Science. It is recommended that all students who wish to enroll in the Nursing Program take the CCSF placement tests before enrolling.

Enrollment. Enrollment in the Nursing Program follows the City College policy of equal educational opportunity. Because of facility and staffing limitations, as well as health and safety requirements, not all students who wish to enroll in the Nursing Program can be accommodated. Selection from among students who are eligible to enroll is made each semester for the following program cycle.

Requests for information regarding enrollment should be addressed to:
Enrollment Committee
Nursing Department
City College of San Francisco
50 Phelan Avenue
San Francisco, CA 94112
Dates for Filing Required Enrollment Forms. For the fall semester, enrollment forms must be received by the Nursing Department no later than March 15 and for the spring semester, no later than September 15. If either date falls on a weekend or a holiday, the receipt date is moved to the next calendar day.

Expenses. Students should expect to incur expenses of approximately $2500 covering the two years of nursing curriculum. This does not include expenses that may relate to non-nursing classes. The expenses related to nursing classes include the cost of required books, uniforms, and individual equipment.

Enrollment to the Program. Because of facilities and staff limitations, 50 new students may be enrolled in the Nursing Program each semester. To be considered for enrollment, students must satisfy certain academic prerequisites as well as health and safety prerequisites. The following is a summary of the requirements for enrollment in the Nursing Program/courses. Please contact the Nursing Department directly for an enrollment form and information package which includes more complete information.

1. File with the Office of Admissions and Records a completed application for admission to City College. No person may attend nursing classes unless he/she is properly admitted to the College.
2. Take the Placement Test in Math and English.
3. Complete the following prerequisite courses within 7 years prior to enrollment with a C or higher in each class:
   - Anatomy 25
   - Physiology 1 or 12
   - Microbiology 12
4. Complete the following courses prior to enrollment with a C or grade of C or higher:
   - English 1A, 94, 96, or ESL 82
   - Math E or BSMA G, H or J
   - Students may satisfy the above course prerequisites at other institutions, but the courses and grades must be verified prior to consideration for enrollment.
5. File a completed enrollment form for the Nursing Program for the fall semester between November 15 and March 15 and for the spring semester, between May 15 and September 15 with the Nursing Department.
6. Submit official transcripts to verify the completion of prerequisite courses to the Office of Admissions and Records and to the Nursing Department. Transcripts must be in the Nursing Office by April 15 for the fall and October 15 for the spring.
7. Health and safety requirements. Nursing courses require students to practice nursing skills in the classroom and in cooperating clinical settings. For health and safety reasons, enrollees must demonstrate through a recent, complete medical examination that they are able to participate in the program, have been tested for tuberculosis, and that they have received the following immunizations: rubella, varicella titers, and hepatitis B. Enrollees must also provide verification of cardiopulmonary resuscitation basic life support, level C certification. Verification of these requirements must be received by the Nursing Department prior to the first day of class.

If the number of prospective enrollees who have met all the program prerequisites exceeds the number of available spaces in the program, the new enrollees will be selected through nonevaluative measures.

Admission of LVNs, psychiatric technicians, transfer nursing students and RN requirements for BRN of California.

1. LVNs and psychiatric technicians with current, valid California licenses who have been accepted into the Nursing Program through the usual enrollment process may be given advance placement based on space availability. Please contact the Department Chairperson for further information.
2. LVN nurses who wish to take the 30-unit provisional program must have a current, valid California LVN license and must have completed Microbiology 12 and Physiology 1 or 12 with a grade of C or higher. Students who qualify for this option should make an appointment with the Nursing Department Chairperson for additional information. Advanced placement is on a space available basis only.
3. Transfer students from other accredited RN nursing programs are considered for enrollment in the Nursing Program. Acceptance is based on equivalent professional nursing education, general education courses and space availability. Transfer students must meet the same enrollment requirements as all students entering the program.
4. RNs who need specific courses required by the BRN for the NCLEX-RN examination should contact the Department Chairperson for additional information. Enrollment is on a space available basis only.

Credit by Examination. All nursing courses are challengeable. Consideration for challenge will be based on previous education and/or experience on an individual basis.

Academic Probation and Dismissal. The failure of a nursing student to satisfactorily demonstrate mastery of required knowledge, skills, or abilities can jeopardize the safety or welfare of others. Depending on the nature of the performance that demonstrates the lack of necessary knowledge, skills, or abilities, students may be placed on academic probation or may be subject to academic dismissal prior to the end of the semester.

All City College students, including Nursing students, are subject to the Rules of Student Conduct, and must conform their behavior to appropriate standards, both during theory classes and during clinical experiences at cooperating clinical settings.

Courses Required for the Award of Achievement in Nursing

A. NURSING COURSES

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Units</th>
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<tbody>
<tr>
<td>NURS 50 Fundamentals of Nursing</td>
<td>6</td>
</tr>
<tr>
<td>NURS 50A Pharmacology in Nursing Part I</td>
<td>2</td>
</tr>
<tr>
<td>NURS 50L Nursing Skills Lab</td>
<td>1</td>
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<tr>
<td>HILTH 10 Aging</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>NURS 50B Pharmacology in Nursing Part II</td>
<td>2</td>
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<tr>
<td>NURS 51 Basic Med Surgical Nursing</td>
<td>6</td>
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</tbody>
</table>
Third Semester
NURS 53 Maternal and Newborn Care ......................... 6
NURS 55 Psychosocial Nursing ................................. 6

Fourth Semester
NURS 54 Nursing of Children ................................. 6
NURS 56 Adv Med & Surg Nursing ............................ 6
NURS 58 Trends & Issues in Nursing I ..................... 6

B. GENERAL EDUCATION COURSES

Course  Units
*ANAT 25 Gen Human Anat ............................... 4
*PHYS 1 or 12 Human Physiology ......................... 4
*M B 12 Intro to Microbiology ............................ 4
*ENGL 1A, 94, or 96, or ESL 82 Read & Comp, Inter or Adv. Inter Reading and Comp 3
*PSYC 1 Gen Psychology .................................. 3
*SOC 1 Intro Sociology .................................... 3
*SPCH 1A, 4, 11, 12, or ESL 79 Elem of Publ Speak or Group Discuss ......................... 3

*These courses meet the California Board of Registered Nursing requirement for licensure and must be completed with a grade of C or higher prior to taking the R.N. Licensure Examination (NCLEX-RN).

In addition to the above, students must also complete General Education courses in Humanities (Area E), U.S. History and Government (Area F), Physical Skills and Health Knowledge (Area G), and Ethnic/Women’s/Gay and Lesbian Studies (Area H).

Please see the course descriptions for Nursing and general education courses in other parts of this catalog.

Board of Registered Nursing. All students should familiarize themselves with all requirements for taking the NCLEX-RN. Completion of the Nursing Department curriculum does not guarantee passage of the NCLEX-RN or eligibility for a California State RN license.

Nursing, Registered (RN)
Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:

NURS 50. Fundamentals of Nursing (6)
Lec-3, lab-18
Prereq.: Admission to the RN Nursing Program with successful completion of all prerequisites listed on the Application and in the Catalog
Introduction to nursing fundamentals, principles of care common to all patients, and basic medical-surgical concepts with application of theory and practice of skills in the clinical area. This course lays the foundation for successive nursing courses. The clinical experience is designed to be concurrent with theory. CSU

NURS 50A. Pharmacology in Nursing Part I (2)
Lec-2
Coreq.: NURS 50
Provides an overview of drug classification and then a focus on specific drug therapies related to the integumentary, endocrine, and central nervous systems, sensory organ inflammation, immunity and cancer. Emphasis on nursing implications of drugs, i.e. administration, pharmacologic effects, clinical uses and adverse effects. CSU

NURS 50B. Pharmacology in Nursing Part II (2)
Lec-2
Coreq.: NURS 1
Focuses on specific drugs used in the management of cardiovascular, respiratory, gastrointestinal, neurological, urinary, reproductive, psychiatric and peripheral nervous system disorder. Emphasis on nursing implications of drugs, i.e. administration, pharmacologic effects, clinical uses, and adverse effects. CSU

NURS 50L. Nursing Skills Laboratory (1)
Lab-3  CR/NC only
Coreq.: NURS 50
Designed to assist students in the development of psychomotor and cognitive skills involved in the performance of selected nursing procedures. The use of the modular approach provides an opportunity for the student to work independently and/or in small groups. CSU

NURS 51. Basic Medical-Surgical Nursing (6)
Lec-3, lab-18
Prereq.: NURS 50, 50L, and 50A
Coreq.: NURS 50B
Designed to acquaint students with individuals experiencing dysfunction of the cardiac, vascular, respiratory, digestive, liver, pancreas, biliary tract, kidney, urinary tract and male reproductive organs. Emphasis on nursing process and integrating principles of nutrition, pharmacology, pathophysiology, psychosocial and biological sciences. Students are assigned to care for patients in acute and nursing home units at the Veteran Administration Medical Center, San Francisco, and at Kaiser Hospital, South San Francisco. CSU

NURS 53. Maternal and Newborn Care (6)
Lec-6, lab-18 (8/9 wks)
Prereq.: NURS 51
NURS 53 and 55 are half-semester courses required in the third semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.
Principles of and practices in maternal health and care of the newborn. Covers the complete maternity cycle and the growth and development of the newborn from the embryonic stage to neonatal life. Nursing experience in the cooperating hospitals augmented by observations in clinics and community agencies contributing to the welfare of mothers and children. CSU
NURS 54. Nursing of Children (6)
Lec-6, lab-18 (8/9 wks)
Prereq.: NURS 53, 55 (and 56 if taken first in the sequence of fourth semester Nursing courses)
NURS 54 and 56 are half-semester courses required in the fourth semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.
Developmental and physical process of children from birth through adolescence. Health maintenance needs of children, prevention, and treatment of common disease conditions and injuries that affect children. Clinical experience is designed to be concurrent with theory and will incorporate the preschool, elementary school, hospital inpatient, home care, and outpatient settings. CSU

NURS 55. Psychosocial Nursing (6)
Lec-6, lab-18 (8/9 wks)
Prereq.: NURS 51
NURS 55 and 53 are half-semester courses required in the third semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.
The study and investigation of the etiology, dynamics, nursing care and therapeutic modalities for persons with psychological dysfunctions, and the understanding of mental health in relation to patient education, growth and development. Emphasis is placed on the interpersonal and problem-solving processes used in the care of all patients. CSU

NURS 56. Advanced Medical-Surgical Nursing (6)
Lec-6, lab-18 (8/9 wks)
Prereq.: NURS 51, 55 (and 54 if taken first in the sequence of fourth semester nursing courses)
NURS 56 and 54 are half-semester courses required in the fourth semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.
Introduction of advanced theories from nutrition, pharmacology, psychosocial and biological sciences, with the integration of cultural diversity essential to prepare the student nurse to apply the nursing process, utilizing Maslow's Hierarchy of Needs theory to provide care for the adult patient experiencing major health alterations in the acute care settings and community environments. Care of the older adult in acute and non-acute care settings. Emphasis on the application of leadership and management theory to clinical practice. Instruction is augmented by supervised clinical experience in cooperating hospitals and selected agencies. CSU

NURS 58. Trends and Issues in Nursing (1)
Lec-1 CR/NC only
Coreq.: Enrollment in the RN Program; NURS 54 or 56
The historical and present trends and issues in nursing. The legal and ethical aspects of nursing and an introduction to the responsibilities of the new graduate nurse. CSU

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Nursing, Licensed Vocational (LVN)
The programs offered in this department include credit courses with certificates issued in Home Health Aide/Nurse Assistant and Vocational Nursing. Additionally, a noncredit course with a certificate issued is Geriatric Home Aide. A variety of courses for care of the elderly may be taken for certified nursing assistant and home health aide continuing education credit.

Announcement of Curricula

Home Health Aide/Nurse Assistant (CNA)
Graduates of this 18 week full time program will be highly qualified for entry level positions as health care providers. They are qualified for positions in acute care and convalescent facilities as well as home care agencies and outpatient clinics. Critical thinking concepts and principles will serve as a framework for studying the nursing and behavioral sciences within a health promotion/risk reduction, multicultural based curriculum.

Program Authorization: This program is approved by the California State Department of Health Services. Successful completion qualifies the graduate to: (1) take the Nurse Assistant Competency Examination to obtain State Certification for practice; 2) obtain Home Health Aide Certification without further examination.

NOTE: The Department of Health Services, Nurse Assistant Certification Division requires fingerprinting and disclosure of misdemeanor and felony convictions for all applicants.

Enrollment Procedure: Applicants must take a placement test, attend a program orientation, and meet all program prerequisites. Enrollees must be in good physical and mental health and be over 18 years of age.

Admission Requirements:
1. Recommended placement in ENGL 92 or ESL 82, or successful completion of ENGL 90 or ESL 72 with a grade of "C" or higher.
2. Business Math G, H, or J
3. A physical examination
4. Immunizations: Hepatitis B, Rubella, Varicella, Mumps, and T.B.
5. Current CPR certification
6. Department of Health Services Applications (15 Fee)
7. DHS Application for Criminal Background Check ($32 Fee)

Requirements for a Certificate of Completion:
Successful completion of the following courses require an average final grade of “C” or higher (2.00 grade point average) to qualify for a Certificate of Completion.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>VOCN 20 Fundamentals/Home Health Aide</td>
<td>6</td>
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<tr>
<td>VOCN 21 Nurse Assistant/Convalescent</td>
<td>3</td>
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<tr>
<td>VOCN 22 Nurse Assistant/Acute Care</td>
<td>3</td>
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<tr>
<td>VOCN 23 Nurse Assistant: Convalescent Care</td>
<td>6</td>
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<tr>
<td>VOCN 24 Home Health Aide</td>
<td>3</td>
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</table>
Vocational Nursing
Certificate Curriculum
The program of study for the certificate of completion in Vocational Nursing is designed to prepare students for employment in acute care facilities, clinics, long-term care facilities, physician offices, home care, and health centers.

Admission. Enrollment is open to all interested students who are in good physical and mental health, and over 17 years of age.

TO BE ADMITTED TO THE CURRICULUM APPLICANTS MUST:
1. Be graduates of an accredited high school or have passed the General Education Development Test (G.E.D.) or have passed the High School Proficiency Examination. Course completion of Anatomy, Physiology, Nutrition, and Pharmacology or one year as a nurse assistant preferred. (For the weekend program applicants, anatomy and physiology, nutrition and pharmacology are prerequisites.)

2. File with the Vocational Nursing Department a completed application for admission to City College (for dates, see ‘Calendar of Instruction’).

3. Apply for admission to the curriculum for the Fall semester between February 15 and May 1, and for the Spring semester, between September 15 to November 15.

4. Take the City College placement tests in English and Mathematics.

5. On the basis of the placement tests and counseling or coursework, demonstrate eligibility for ENGL 94 and MATH 840.

6. Applicants must submit official transcripts.
   a. High school transcripts showing proof completion of the 12th grade. Transcripts must be submitted in keeping with the application deadline.
   b. Applicants who are accepted in Vocational Nursing and who wish to receive credit for prior nursing education courses completed.

7. Admission of Certified Nurse Assistant, Board Challenge students transfer.
   a. C.N.A. certificate from the State of California and must have completed a credit granting, college based CNA program are eligible for at least 4 units. Students who qualify and are interested should make an appointment with the department head for additional information and requirements.
   b. Transfer students from other accredited L.V.N. or R.N. programs are accepted in the CCSF Vocational Nursing Program. Acceptance is based on equivalent nursing education and availability of space.
   c. Board challenge applicants who need required courses for state boards should contact the vocational nursing office.
   d. Credit may not be given toward satisfying the Vocational Nursing course requirement, for courses completed 5 or more years prior to application for admission.

Credit by Examination. Applicants who qualify for admission into the Vocational Program and who have had health training courses in the military, psychiatric technician and certified nurse assistants graduates from noncredit programs who wish to receive credit, or advanced placement should contact the vocational nursing office for additional information. Admission is based on space available.

Requirements for Certificate of Completion. Students may obtain the Certificate of Completion in Vocational Nursing by completing the following courses with an average final grade of C (2.0 grade-point average) or higher.

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>VO CN 33A Voc Nursing/Pharmacology</td>
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<tr>
<td>VO CN 33B Voc Nursing/Nutrition</td>
<td>3</td>
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<tr>
<td>VO CN 33C Voc Nursing/Basic Skills</td>
<td>2</td>
</tr>
<tr>
<td>VO CN 33D Voc Nursing/Basic Skills Lab</td>
<td>1</td>
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<tr>
<td>VO CN 33E Voc Nursing/Fundamentals</td>
<td>7</td>
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**Second semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>VO CN 34A Voc Nursing/Anatomy &amp; Physiology</td>
<td>3</td>
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<tr>
<td>VO CN 34B Voc Nursing/Medical Surgical Nursing</td>
<td>6</td>
</tr>
<tr>
<td>VO CN 34C Voc Nursing/Maternity Nursing</td>
<td>3</td>
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<tr>
<td>VO CN 34D Voc Nursing/Pediatrics</td>
<td>3</td>
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<tr>
<td>VO CN 34E Voc Nursing/Skills Laboratory</td>
<td>1</td>
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<tr>
<td>VO CN 34F Voc Nursing/Child Development</td>
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**Third semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tr>
<td>VO CN 35A Psychology/Soc Concepts</td>
<td>2</td>
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<tr>
<td>VO CN 35B Voc Nursing/Advanced Med/Surg</td>
<td>12</td>
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<tr>
<td>VO CN 35C Voc Nursing/Community Health</td>
<td>2</td>
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<tr>
<td>VO CN 35D Voc Nursing/Advanced Skills</td>
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</table>

Geriatric Home Aide
Noncredit Program

Program Goal. The Geriatric Home Aide program has been designed to prepare students to enter the home care field by providing job specific training for assistance to elderly persons in their own homes.

Admission Requirements. Placement test score of 6.0 in reading and math; good physical and mental health. For more information call 561-1912.

Length of Program. 4 Weeks, 26 hours per week.

Core Courses | Hours/Weeks
<table>
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<tbody>
<tr>
<td>VO CN 9981 Geriatric Home Aide (Nurt)</td>
<td>11/4</td>
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<tr>
<td>VO CN 9982 Geriatric Home Aide</td>
<td>15/4</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
</tr>
</tbody>
</table>

Requirements for Completion. Completion of required courses with C grade or higher in each course; 95% attendance.
Nursing, Licensed Vocational
Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:

VOCN 20. Fundamentals/Home Health Aide (6)
Lec-15, lab-15 (6 wks)
Critical thinking concepts and principles serve as a framework for studying the nursing and behavioral sciences within a health promotion/risk reduction, multicultural based curriculum. The laboratory component emphasizes fundamental nursing skills and procedures essential to meeting the physical, psychological, and social needs of the hospitalized patient as well as those of the home bound client. CSU Qualifies the student for state certification as a Home Health Aide and meets the prerequisites for the Nursing Assistant.

VOCN 21. Nurse Assistant/Convalescent (3)
Lec-4, lab-20 (6 wks)
Prereq.: VOCN 20, Physical Examination, and CPR certification
Critical thinking concepts and principles serve as a framework for the application of fundamental nursing skills and procedures essential to meeting the physical, psychological, and social needs of geriatric and/or the adult patient. A heavy emphasis is placed upon utilizing: 1) principles of prevention and rehabilitation; 2) principles of therapeutic communication, and 3) therapeutic techniques/approaches, in dealing with the emotionally disturbed or mentally incompetent clients. CSU Successful completion qualifies the student to sit for the California State Nurse Assistant Testing Examination (Written and Practical)

VOCN 22. Nurse Assistant/Acute Care (3)
Lec-4, lab-16 (6 wks)
Prereq.: VOCN 21 or a California Certified Nurse Assistant with one year experience, physical examination, and CPR certification
Critical thinking concepts and principles serve as the framework for the application of advanced nursing skills and procedures essential to meeting the physical, psychological, and social needs of the medical/surgical patient. The student will be introduced to the causes of disease; the body’s response to disease; and the diagnosis, treatment, and prevention of disease. The nursing process will be utilized to develop: 1) assessment, decision-making, and problem-solving skills; 2) effective interview techniques; and 3) time management and prioritizing strategies. CSU

VOCN 23. Nurse Assistant: Convalescent Care (6)
Lec-5, lab-7
Integration of basic nursing concepts and skills the nursing assistant must master in order to give safe and competent patient care. Communication and interpersonal skills, infection control, safety and emergency procedures, promoting patient independence, patient/resident rights, basic nursing skills, personal care skills, mental health and social service needs, care of the cognitively impaired, basic restorative services. Clinical experience in long term care nursing facilities. CSU

VOCN 24. Home Health Aide (3)
Lec-3 (40 hour State Approved course)
Prereq.: VOCN 23 or a current CA Nurse Assistant Certificate Duties of the nursing assistant in the home setting including liability, safety, infection control, housekeeping chores, food management, laundry, and record keeping. Successful completion leads to State Certification as a Home Health Aide. CSU

VOCN 33A. Vocational Nursing/Pharmacology (3)
Lec-3
Pharmacological principles of patient care with emphasis on body systems and medication dosage calculation, preparation, administration and storage. Instruction includes didactic and laboratory simulations. Fulfills the pharmacology requirements for the Board of Vocational Nurse and Psychiatric Technician. CSU

VOCN 33B. Vocational Nursing/Nutrition (3)
Lec-3
Basic concepts of nutrition for Vocational Nurses. Provides knowledge of normal and therapeutic nutrition to serve as a basis for decision-making in nursing care. Nutrition is integrated into patient care with emphasis on aspects of disease prevention. CSU

VOCN 33C. Vocational Nursing/Basic Skills (2)
Lec-1, lab-4
Prepares the student for administering basic patient care in the hospital setting. The course focuses on the following components of Vocational Nursing: medical terminology, basic nursing skills, effective communication, documentation, reporting, and ethics & the law. CSU

VOCN 33D. Vocational Nursing/Basic Skills Lab (1)
Lec-1, lab-2
Prereq.: VOCN 33C
Students will practice, perform and master basic nursing procedures in the clinical laboratory with supervision. CSU

VOCN 33E. Vocational Nursing/Fundamentals (7)
Lec-3.25, lab-15
Prereq.: VOCN 33C
Coreq.: VOCN 33D
Introduction of Vocational Nursing theory and practice. Didactic include gerontology and principles of nursing care for Musculoskeletal and Integumentary systems with an introduction to nursing care of the gastrointestinal system. Clinical education has both a acute and a chronic care focus. The content meets the long-term care requirement for State certification as a nursing assisting the patient in meeting his basic needs. CSU

VOCN 34A. Vocational Nursing/Anatomy and Physiology (3)
Lec-3
Prereq.: VOCN 33A-33E
A study of the structure and function of the human body with practical applications for the Vocational Nurse. Emphasis placed on aiding the student in understanding the 10 body systems utilizing an applied approach. CSU
VOCN 34B. Vocational Nursing/Medical-Surgical (6)
Lec-3, lab-7
Prereq.: VOCN 33A-33E
Individual health care needs of adult patients with gastrointestinal, urinary, reproductive and respiratory disorders. CSU

VOCN 34C. Vocational Nursing/Maternity (3)
Lec-2, lab-5
Prereq.: VOCN 33A-33E
Principles and practice of obstetrical nursing care for vocational nursing. The role of the Vocational Nurse in neonatal, labor, delivery, prenatal and postpartum care are examined. CSU

VOCN 34D. Vocational Nursing/Pediatrics (3)
Lec-2, lab-4
Prereq.: VOCN 33A-33E
Nursing care of children ages 018 years old. Health maintenance, disease prevention and common childhood abnormalities are emphasized. CSU

VOCN 34E. Vocational Nursing/Medical/Surgical Skills (1)
Lec-1, lab-2
Prereq.: VOCN 33A-33E
Demonstration and return demonstrations of medical/surgical, pediatric and maternal child health nursing skills. CSU

VOCN 34F. Vocational Nursing/Child Growth and Development (1)
Lec-1, lab-1, field trips
Prereq.: VOCN 33A-33E
Provides students with didactic growth and development knowledge from newborn through adolescence. Clinical experience in pre-school areas. CSU

VOCN 35A. Vocational Nursing/Psycho-Social (2)
Lec-2
Prereq.: VOCN 34A-34F
Introduction to principles of psycho-social nursing. CSU

VOCN 35B. Vocational Nursing/Advanced Medical Surgical (12)
Lec-4, lab-17
Prereq.: VOCN 34A-34F
Advanced concepts of health care needs of Adult patients with conditions of the cardiovascular, respiratory and nervous systems. Patient assessment skills and the application of nursing process in managing patient needs in the adult medical/surgical environments. Includes clinical experience in an acute setting. CSU

VOCN 35C. Vocational Nursing/Community Health (2)
Lec-1, lab-3
Prereq.: VOCN 34A-34E
Introduction to concepts of community health. Includes clinical experience in community care facilities. CSU

VOCN 35D. Vocational Nursing/Advanced Skills (1)
Lec-1, lab-2
Prereq.: VOCN 34A-34E
Demonstrate proficiency with advanced skills in medical/surgical nursing. CSU

NONCREDIT COURSES:
VOCN 9120. Care of Developmentally Disabled (24 hrs)
Prepares students to care for developmentally disabled clients living at or in a home. Familiarization with the special needs of developmentally disabled clients. Training in skills at meeting those needs.

VOCN 9174. Care of the Alzheimer Patient (24 hrs)
Prepares students to care for Alzheimer clients and other adults with brain disorders in their homes. Students learn about (1) behavioral changes, (2) how to manage problem behavior, and (3) planning for long term care.

VOCN 9189. Care Of The AIDS Patient (24 hrs)
Prepares certified nursing assistants and other caregivers for provision of appropriate care for AIDS patients in institutional settings, community-based hospices and private homes.

VOCN 9194. Home Health Aide-Theory/Special (120 hrs)
Advises: ESLN 3500 or ABE 2073
Principles of personal care for the adult and geriatric client requiring home care. Emphasis for students re-entering the job market and those with Cantonese/Mandarin bilingual skills. Certification by the State of California upon successful completion of theory and clinical components.

VOCN 9195. Home Health Aide-Clinical/Special (50 hrs)
Advises: ESLN 3800 or ABE 2073
Clinical application of theory prepares the individual to render home care to the adult and geriatric client. Designed for re-entry students and those with Cantonese/Mandarin bilingual skills. Certification by the State of California upon successful completion of theory and clinical components.

VOCN 9200. Licensed Vocational Nurse Refresher (455 hrs)
Prereq.: Eligibility for ENGL 94 or ESL 82; LVN License or RN License
A comprehensive review of the principles and practices of Licensed Vocational Nursing including a State Board Review Program.

VOCN 9981. Geriatric Home Aide(Nutrition) (44 hrs)
Prepares graduates to provide cooking, shopping and cleaning services for ambulatory elderly clients in their own home setting. Includes dietary needs of geriatric and AIDS patients, cultural foods, cooking demonstrations, safe sanitation practices.

VOCN 9982. Geriatric Home Aide (60 hrs)
Prepares graduates to care for ambulatory elderly clients in their own home setting. Includes the needs of the clientele and the skills necessary to meet these needs. Information essential to secure employment in the home care field.

Oceanography
See Earth Sciences listings
Older Adults
Announcement of Courses

NONCREDIT COURSES:

General Classes

OLAD 7000. Senior Adventures (90 hrs)
A full-day program of diverse activities that may include lectures, crafts, music, exercise, discussions, service projects, field trips, holiday celebrations, and opportunities to learn various new skills.

OLAD 7006. Understanding Changing Times (36 hrs)
Activities focus on personal, social, political, and wellness issues; field trips may be included.

OLAD 7501. Introduction to Computers (54 hrs)
An introduction, for older adults, to the basic concepts and techniques of personal computers, presented in an unhurried, non-competitive environment with guided practice. Topics include microcomputer concepts of word processors, spreadsheets, databases, and the Internet, with the opportunity to pursue special projects.

Health

OLAD 7200. Exercise and Relaxation Techniques (36 hrs)
Some of these classes offer T’ai Chi Chuan instruction in the thirty-seven-posture Yang form that promotes relaxation, balance, coordination, and good health. Other classes present modified hatha yoga, body mechanics, back care, breathing, meditation and flexibility exercises.

OLAD 7205. Wellness Exercises (18 hrs)
Moderate exercises designed for either older adults with limited physical abilities or those who are re-introducing themselves into a physical fitness program. The T’ai Chi Chuan sections of this class emphasize proper body alignment, stances, and coordination, using the principles of the art to promote relaxation and health.

OLAD 7209. Mind-Body Health (36 hrs)
A discussion and practice class for improving one’s health through an understanding of the impact of thoughts, emotions, and attitudes on the body. Practice sessions involve gentle exercises based on t’ai chi.

Personal Enrichment

OLAD 7300. Art for Older Adults (45 hrs)
Open to beginning and advanced students. Using oil paints or watercolors, students will study and work to develop different painting techniques through a series of exercises. Students will receive individual instruction on how to mix colors, work from still life materials, work from landscapes and eventually work from live models. Students provide their own materials.

OLAD 7301. Arts and Crafts for Older Adults (45 hrs)
A general survey of arts and crafts with an emphasis on exercises and experiments with methods and materials, including: painting, drawing, color theory, composition rendering, batik, tie-dye, macrame, block printing, ceramics, metal crafts, leather, and weaving.

OLAD 7303. Figure Drawing - Older Adults (54 hrs)
Studio class in drawing the human figure from a live model. For beginners to professionals. Pencil, charcoal, ink, and watercolors. Field trips will be included in the program to study and evaluate other artists’ works.

OLAD 7307. Music Appreciation for Older Adults (36 hrs)
Study of and familiarization with the music of western civilization. Students are introduced to a sampling of music from ballets, operas, and symphonies.

OLAD 7309. Theater Appreciation for Older Adults (45 hrs)
Students read plays, attend performances, and develop critical skills in review discussions. The history of theater, elements of dramatic literature, and production techniques.

OLAD 7310. Stitchery for Older Adults (45 hrs)
Patchwork, Hawaiian quilting, trapunto, cross stitch, embroidery stitches. Projects include two pillows, a small quilt, embroidering on a garment, a purse, and construction of a bound book.

OLAD 7313. Art Appreciation - Older Adults (36 hrs)
Introduction to art, painting and sculpturing from the Lascaux cave paintings to modern day artists. Topics include: biographies and personalities of various artists; different art styles; the basic elements of art; the basic periods of art history and their characteristic styles along with the reasons such styles were developed.

OLAD 7316. Life Sculpture for Older Adults (72 hrs)
Older adults learn sculpture in a supportive studio atmosphere. Students work primarily in clay from a live model.

Writing

OLAD 7400. Journal Writing for Older Adults (36 hrs)
Development of writing skills through journal keeping. Students acquire insight and awareness by the practice of writing techniques such as creative exercises, dialogues and monologues, stories, description, dreams, letters, memoirs, and poetry.

OLAD 7401. Writers’ Workshop for Older Adults (45 hrs)
Develop writing skills in a peer support group. Students may choose to work on prose and/or poetry and read their work in class. Learning how to respond to writing, guided creative exercises and assignments, sentence and story structure.

OLAD 7402. English - Women’s Literature (54 hrs)
Survey of works by and about women, including novels, short stories, essays, biography, and poetry. Development of reading and critical thinking skills. Each semester focuses on either American or international authors.
Paleontology
See Earth Sciences listings

Philippine Studies
Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:

PHST 10. Independent Study (3)
Ind-st-15 CR/NC avail.
Independent reading and research in Philippine Studies. The student is required to submit an essay or project on a topic that the instructor has approved in advance. This project must have strong relevancy within the area of Philippine Studies and meets the student's own educational resources and needs. CSU/UC

PHST 20. The Filipino Family (3)
Lec-3 CR/NC avail.
A survey of adaptation to internal and external forces of change that have buffeted and changed the modern Filipino family. Description and analysis of traditional and contemporary Filipino family systems as they respond to the nature and changes within the larger Philippine society and culture. CSU/UC

PHST 30. Philippine Society and Culture Through Film (3)
Lec-3 CR/NC avail.
An examination of Filipino/Philippine films for expressions of various cultural themes and socio-political influences on the Filipino experience; includes: the use and meaning of language for Filipinos, images of Filipinos, interpersonal relations, isolation, sex roles, “The Filipino Dream,” immigration, and bicultural alienation. CSU/UC

ANTH 15. Philippine Culture and Society (3)
Lec-3 CR/NC avail.
The development of Philippine culture and the impact of Western civilization on the people; emphasis on the ways of life in Philippine cities and barrios. Tribal cultures. CSU/UC

ASAM 8. Filipino American Community (3)
Lec-3 CR/NC avail.
Description and analysis of Filipino American community problems from a sociological viewpoint. Cultural shock and other problems of adaptation of Filipino immigrants considered in light of the carryover from Filipino culture and psychology. CSU/UC

GLST 50. Gay/Lesbian/Bisexual/Transgender Communities of Color in the U.S. (3)
Lec-3 CR/NC avail.
Examination of the formation of lesbian/gay/bisexual and transgender identities and communities among people of color in the United States. Included are African Americans, Native Americans, Asian Americans, Pacific Islanders, and Chicano/Latinos. CSU/UC

HIST 36. History of Southeast Asia (3)
Lec-3 CR/NC avail.
A survey of the history of southeast Asia, with emphasis on the role of the United States in Southeast Asia. CSU

HIST 37. History of the Philippines (3)
Lec-3 CR/NC avail.
The historical and cultural growth of the Philippines, including the development of national culture, political and social institutions, and foreign relations. CSU/UC

HIST 39. The United States Presence in the Western Pacific Rim: An Introduction (3)
Lec-3 CR/NC avail.
A survey course on the evolution of US interests, expansion and foreign policies in the Western Pacific Rim area, specifically the countries in East Asia and Southeast Asia. CSU/UC

IDST 36. Poetry for the People (3)
Lec-3 CR/NC avail.
An interdisciplinary poetry course which explores the poetry of African Americans, Latino(a)s, Asian Americans, and Native Americans, including poetry by incarcerated people and by poets of all sexual orientations. Use of tapes, recordings, films, poetry readings, and discussions, close readings, guest lectures and performances to (1) identify poetry that is accessible to the general community and (2) develop strategies and various media for making poetry available to diverse communities. CSU/UC

IDST 37. Ethnic Minorities in the United States (3)
Lec-3 CR/NC avail.
An interdisciplinary survey of the history, culture, problems, and conditions of American ethnic minorities and the effects of racism, prejudice and discrimination on emerging minority groups in the United States. CSU

IDST 40. Introduction to Contemporary Issues in the Filipino Community (3)
Lec-3, field trips CR/NC avail.
Students identify and critically analyze contemporary social, political, economic, educational, and cultural issues that are important and significantly affect the life of the Filipino American community. Issues include the following areas: defining Filipino and Filipino American identity, immigration and acculturation, socioeconomic status, employment, racial and ethnic diversity, gender, political empowerment, education, and emerging patterns of the Filipino family. CSU/UC

IDST 42. Philippine Humanities (3)
Lec-3 CR/NC avail.
Appreciation and critical evaluation of Filipino philosophy, literature, art, music, and dance for the purpose of developing an aesthetic sense and cultural acceptance. Exposure to the best of these forms through readings, recordings, films, and field trips. CSU/UC

PILIPINO LANGUAGE COURSES:
See Filipino in this section of the catalog.
POLS 47. Government and Politics of Southeast Asia (3)
Lec-3 CR/NC avail.
A survey of political developments and changes in Southeast
Asian states (the Philippines, Indonesia, Malaysia, Thailand,
and Singapore) and such other states as Viet Nam, Laos,
Cambodia, and Burma. Internal politics and international rela-
tions. CSU/UC

PSYC 22. Psychology of Race and Ethnic Relations (3)
Lec-3 CR/NC avail.
Not open to students who are enrolled in or who have com-
pleted PSYC 23.
Critical evaluation of the concept of race as a biological, social
and cultural construct and examination of psychological
aspects of race and ethnic relations. Psychohistorical analysis
of the treatment of African Americans, Asian Americans,
Mexican/Latino Americans, and Native Americans in the USA.
Emphasis on the strengths and unique contributions of these
and other groups to the USA. CSU

PSYC 23. The Psychology of Race and Ethnic Relations
(3)
Lec-3 CR/NC avail.
Prereq.: PSYC 1
Not open to students who are enrolled in or who have com-
pleted PSYC 22.
Critical evaluation of the concept of race as a biological, social
and cultural construct and examination of psychological
aspects of race and ethnic relations. Psychohistorical analysis
of the treatment of African Americans, Asian Americans,
Mexican/Latino Americans, and Native Americans in the USA.
Emphasis on the strengths and unique contributions of these
and other groups to the USA. CSU/UC

Philosophy
Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:

Except for PHIL 12B, philosophy courses may be taken in any
order. Both PHIL 2 & 4 are recommended as introductory
courses.

PHIL 2. Introduction to Philosophy: Moral and
Political Philosophy (3)
Lec-3
An examination of such questions as: Are value and moral
judgments only the conventional prejudices of society or are
there conditions under which value judgments can be ration-
ally defended? If there are such grounds, what are they? If not,
what consequences, if any, follow from ethical skepticism? Can
value judgments about individuals or societies be justified on
rationally acceptable grounds? CSU/UC/CAN

PHIL 4. Introduction to Philosophy: Knowledge and
Its Limits (3)
Lec-3
The tools and techniques of philosophical reasoning; reading
argumentative prose; analyzing conceptual models; writing
critical essays. Problems of knowledge: the criteria of reliable
knowledge; the formulation and justification of beliefs; the
sources and limits of knowledge; beliefs about the physical
world, the past and future, and other minds. Critical standards
applied to related metaphysical issues: theism, mind and self-
identity, determinism. CSU/UC/CAN

PHIL 12A. Symbolic Logic (4)
Lec-5
Prereq.: MATH 860 or placement in MATH 90
The study of logical relationships (consistency, equivalency,
and entailment) by way of models and procedures in a
symbolic system. The concept of proof and the demands of
formal proofs. Methods of demonstrating logical relationships,
including truth tables, derivations in sentence and predicate
logic; and semantic interpretations. The relation between con-
ventional languages and symbolic encodings. A selection of
related theoretical topics, including proofs of soundness and
consistency for the calculi, and elementary set theory. CSU/
UC/CAN

PHIL 12B. Symbolic Logic (3)
Lec-3
Prereq.: PHIL 12A
Semantic interpretations and the predicate calculus; identity;
metatheorems; proofs of completeness, consistency and sound-
ness; axiomatics; formalized theories; the history of logic. CSU/
UC

PHIL 25A. Ancient Philosophy (3)
Lec-3
The origins of the philosophical-scientific tradition. Early
attempts at rational explanations of the natural world. Socrates
and the foundations of moral criticism. Plato: his articulation of
the problems of knowledge, and contributions to moral and
political theory. Aristotle: his organization of scientific inquiry,
formulation of ethical theory, and development of the science of
logic. The philosophic tradition after Aristotle. CSU/UC/CAN

PHIL 25C. Modern Philosophy through Kant (3)
Lec-3
The philosophical tradition from the Renaissance to the nine-
teenth century. Emphasis on new models of human knowl-
edge and human nature formulated in reaction to scientific
and social revolutions. Positions of thinkers such as Descartes,
Hume and Kant on basic questions such as “Can anything be
known with certainty?”, “Are there any justifiable moral princi-
plies?”, “Is there any purpose to existence?” CSU/UC/CAN

PHIL 40. Logic: An Introduction to Critical Thinking
(3)
Lec-3 CR/NC avail.
A course in practical reasoning. How to distinguish between
reasons that are rational and those that are not. Methods of
evaluating arguments that will lead to the truth. CSU/UC
PHIL 51-52-53. Selected Topics in Philosophy (1-2-3)
Lec 1, 2, 3
Repeat: if no topic repeat
Investigation of a broad range of ideas, issues, figures, and
movements. CSU

Photography
Announcement of Curricula

General Information
The Program provides conceptual, aesthetic, and practical
skills training for the beginning through advanced photog-
raphy student. An emphasis on technical skills is fundamental
to the program. This, along with training in design, aesthetics,
and concepts in photographic imagery, produces graduates
who can realize their creative aspirations and be competitive
today's job market. The program of study provides a core
curriculum of required courses that cover all key areas of
commercial and creative photography. Elective classes offer
the opportunity for specialized or individualized study and cover
a range of traditional and emerging approaches in photography
including advanced studio or location lighting, advanced
digital imaging, expressive alternatives, and a guest lecture
series.

The program is designed to prepare students for a wide range
of careers in photography or for transfer to institutions of
higher education for advanced study. The practicing photog-
raphers on our faculty bring their professional experience,
interests, and specializations to create a program with breadth
and depth.

Career Opportunities. Students in the curriculum in Pho-
tography are trained in the major branches of photographic
work. Positions for which graduates may qualify, depending
upon their interests, abilities, and achievement, include those
of industrial, commercial, portrait, illustrative, advertising, fre-
 lance, editorial, and public-relations photographer; photog-
aphic-laboratory technician; photographic salesperson; and
operator of a photographic business. The curriculum includes
training in specialized fields such as digital photography. The
course of study requires two years.

Work-Experience Training. Students majoring in photog-
raphy may obtain practical experience in the photographic
industry by enrolling in a work-experience course. To receive
credit, students must work at least ten hours weekly in an
approved position. The College helps students in the course
find salaried employment. Placement depends upon students'
abilities and records, employers' requirements, and economic
conditions. Students are supervised by both employers and in-
structors. Students may receive a maximum of four semester
units in approved work experience coursework.

Associate of Science Degree and Award of Achieve-
ment. The program is designed so that students may satisfy the
requirements for graduation from the College. Students who
satisfy these requirements receive the Award of Achievement
in Photography if they complete the required program of study
with a B minus (2.75 grade-point average) or higher. The
program adviser of the Photography Department will help
students who desire to plan special programs of study.

Students who complete such programs in accordance with the
regulations of the department will receive the Award of
Achievement in Photography.

NOTE: Due to the extensive use of materials in lab and studio
classes, students may be required to pay a materials fee.

Courses Required for the Award of Achievement in
Photography
First Semester
Course
PHOT 50A or 50B History & Aesthetics of Photo  . 4
PHOT 51 Beg Black & White Photo ............. 3
PHOT 53 Photographic Design ................. 2
PHOT 150 Photographic Lab .................. 0
Units
Additional graduation requirements

Second Semester
PHOT 55 Beg Color Photography ............. 3
PHOT 81A Inter Black & White Photo ........ 3
PHOT 83 View Camera Techniques .......... 2
PHOT 85A Beginning Lighting Techniques .... 4
PHOT 150 Photographic Lab .................. 0
Units
Additional graduation requirements

Third Semester
PHOT 60A Beginning Computer Imaging ....... 2
PHOT 85B Adv Studio Lighting Techniques ... 4
PHOT 93 Editorial Photography ............... 2
PHOT 95A Beginning Color Printing .......... 4
PHOT 150 Photographic Lab .................. 0
Units
Additional graduation requirements

Fourth Semester
PHOT 81B Adv. Black and White Darkroom Tech. 4
PHOT 90 Portraiture .......................... 4
PHOT 99 Business Practices of Photography ... 4
PHOT 150 Photographic Lab .................. 0
Units
Elective Courses: In choosing electives, students should
take at least two units from the following list of courses.
Students should select electives in consultation with their
program adviser. PHOT 52, 57, 60B, 82, 86, 89, 95B, 101-104,
117, 118, 130.

Photography
Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:
PHOT 50A. History and Aesthetics of Photography (4)
Lec 4, field trips
illustrated lectures on the achievements of important photog-
raphers. Designed to stimulate visual thinking and creative
problem solving. Visits to museums, films and slide lectures.
CSU/UC
PHOT 50B. History and Aesthetics of Photography Since 1945 (4)
Lec-4, field trips CR/NC avail.
History of photography since 1945, highlighting achievements of important photographers. Designed to stimulate visual thinking and creative problem solving. Topics covered are avant garde, surrealism, symbolism, fictional photographs, structuralists, post-modernism, pop art, current uses of landscape images, contemporary color, and photography's interactions with modern painting, video, performance and computer. Visits to museums and galleries. CSU/UC

PHOT 51. Beginning B & W Photography (3)
Lec-3, lab-3, field trips CR/NC avail.
A basic course introducing black and white photography and processing practices. Introduction to the small format cameras (35 mm), exposure calculations, negative processing, enlarging and mounting techniques. Topics covered include camera filters and black and white films, night photography, flash usage, elementary lighting, and introduction to the aesthetics of photography. CSU/UC/CA

PHOT 52. Photographers and Their Images (1)
Lec-1 CR/NC avail.
Repeat: max. 2 units
Professional photographers present and discuss their work in both technical and aesthetic terms. This is a unique opportunity for photography students to meet world renowned photographers and discuss topics in a question and answer format. CSU

PHOT 53. Photographic Design and Concepts (2)
Lec-3, lab-1, field trips CR/NC avail.
Prereq.: PHOT 51 or demonstration of exit skills
Design and concept elements necessary for the formulation of photographic images; communication and expression of photographic ideas; exploration of conceptual and formal design of photography. CSU

PHOT 55. Beginning Color Photography (3)
Lec-3, field trips CR/NC avail.
Prereq.: PHOT 51 (concur.)
Advise: PHOT 53 (concur.)
Basic principles of photographing with slide film; special demands of color technique; color relationships; light qualities; kinds of films; class demonstrations; critiques of color transparencies. CSU

PHOT 57. Photography and Multimedia (3)
Lec-3, lab-1 CR/NC avail.
Prereq.: PHOT 51 and IDST 120
Coreq.: IDST 130
Introduction to the role of photography in multimedia. Beginning digital imaging, image acquisition, and the production process. Emphasis on the application of these skills integrated with other digital media. Using these techniques, students will explore conceptually the use of photographic images in multimedia. Includes lab assignments and demonstrations of hardware and software necessary for the contemporary photographer to succeed in the electronic age. CSU

PHOT 60A. Beginning Computer Imaging (2)
Lec-2, lab-1, field trips CR/NC avail.
Prereq.: GRPH 25 or CIS 100M or demonstration of equivalent Macintosh computer skills
Advise: PHOT 51
A beginning level lecture/lab course introducing students to the field of computerized electronic imaging. Emphasis on the technical aspects of digital photography including demonstration of the software and hardware necessary for a photographer to succeed in the contemporary photographic marketplace. Students will complete lab exercises in class as well as assignments to be completed outside of class time. CSU

PHOT 60B. Advanced Computer Imaging (3)
Lec-2, lab-3, field trips CR/NC avail.
Advise: GRPH 21 or PHOT 55
An advanced level lecture/lab course for students to expand their capabilities in computerized electronic imaging. Emphasis on the advanced techniques in the manipulation, alteration and enhancement of digital photographs. In-depth exploration of the digital photograph will provide students with skills to create their own expressive images and explore the various electronic methods of output. Students will integrate the technical resources which are available to them in preparation for a rapidly changing field. Students will complete lab exercises in class. CSU

PHOT 81A. Intermediate Black and White Photography (3)
Lec-3, lab-3, field trips CR/NC avail.
Prereq.: PHOT 51 or demonstration of exit skills
Advise: PHOT 53
Emphasis on black and white exposure control and darkroom technique using small and medium format cameras. Includes camera filters, push processing, more advanced darkroom controls, greater speed and responsiveness to subject matter, and a deeper understanding of photographic theory and its application. CSU

PHOT 81B. Advanced Black and White Darkroom Techniques (4)
Lec-3, lab-3, field trips CR/NC avail.
Prereq.: PHOT 81A or demonstration of exit skills
Repeat: max. 8 units
An intensive exploration of the controls and materials of the black and white photographic process. Emphasis on fine printing, optimization of the negative and archival processing procedures, and an analysis of films, papers and developer combinations. CSU
PHOT 82. Zone System Techniques (3)
Lec-2, lab-4, field trips  CR/NC avail.
Prereq.: PHOT 81A or demonstration of exit skills
Repeat: max. 6 units
An exploration of the Photographic Zone System through use of special light metering, processing, and fine printing techniques. A study of the integration of aesthetics, calibration of camera and exposure meter to film, calibration of film to photographic printing papers, development of film for specific lighting conditions, printing and other techniques associated with the Photographic Zone System required for assignments. The production of a fine portfolio of images using the Zone System for presentation to clients or galleries and museums. CSU

PHOT 83. View Camera Techniques (2)
Lec-2, lab-1, field trips  CR/NC avail.
Prereq.: PHOT 51 or demonstration of exit skills
An exploration of the 4x5 view camera through hands-on experience. Investigation of perspective control, camera movements, film, processing, and printing as applied to studio, architectural and fine art photography. The department will provide students with 4x5 cameras. CSU

PHOT 85A. Beginning Lighting Techniques (4)
Lec-3, lab-3, field trips  CR/NC avail.
Prereq.: PHOT 51 or demonstration of exit skills
Advis: PHOT 53, 55, and 83 (concur.)
Through demonstration and hands-on experience students explore the basic and technical use of ambient, tungsten and electronic flash illumination as it is used with color and black and white film. Students will work with a variety of lighting equipment and accessories. CSU

PHOT 85B. Advanced Studio Lighting Techniques (4)
Lec-4, lab-2, field trips
Prereq.: PHOT 55 and 85A or demonstration of exit skills
Advis: PHOT 83
Advanced lighting techniques with an emphasis on electronic strobe and mixed lighting techniques as used in advertising and product photography. Emphasis on client-photographer relationships, solving photographic problems imaginatively, and building a quality portfolio. CSU

PHOT 86. Mixed Media and the Photographic Image (3)
Lec-2, lab-3, field trips  CR/NC avail.
Prereq.: PHOT 81A or demonstration of exit skills
Advis: PHOT 53
Repeat: max. 6 units
An exploration of the photographic image, exposing students to the concept of manipulation of the original to reveal forms of expression which are unattainable through straight photography. Emphasis will be given not only to established non-silver processes, but also to the integration of more contemporary mediums. CSU

PHOT 89. Large Format Transparency (3)
Lec-1, lab-3
Prereq.: PHOT 83 and 85A or demonstration of exit skills
Advis: PHOT 55
Repeat: max. 6 units
An advanced, large format transparency (4x5) course with emphasis on color principles carried to further refinement and practical applications in studio and location photography. Special emphasis on product, interior and exterior photography, solving mixed lighting problems, utilization of special effects, and the building of a professional portfolio for job applications and presentations. CSU

PHOT 90. Portraiture (4)
Lec-3, lab-3  CR/NC avail.
Prereq.: PHOT 85A or demonstration of exit skills
Advis: PHOT 83
Introduction to photographing people utilizing tungsten, strobe, and daylight, with an emphasis on creating as well as interpreting the personality. Use of multiple lighting techniques in the studio and on location. Working successfully with subjects. Analysis and application of lighting techniques for social portraiture, including wedding, school, yearbook, family, and executive portraiture. CSU

PHOT 93. Editorial Photography (2)
Lec-2, lab-1, field trips  CR/NC avail.
Prereq.: PHOT 81A or demonstration of exit skills
Techniques leading to a creative treatment of typical editorial assignments, including use of several format cameras, variable lenses, multiple electronic flash and typical effects essential to quality storytelling pictures. Students produce a portfolio including feature news, publicity, public relations, and feature story photographs. CSU

PHOT 95A. Beginning Color Printing (4)
Lec-3, lab-3, field trips  CR/NC avail.
Prereq.: PHOT 55 or demonstration of exit skills
Exploration of color negative printing through an understanding of exposure, color films and papers, processing, color temperature and color theory. Sensitometry and densitometry as they apply to color negative printing. Emphasis on the aesthetics of color photography. CSU

PHOT 95B. Intermediate Color Printing (4)
Lec-3, lab-3  CR/NC avail.
Prereq.: PHOT 95A or demonstration of exit skills
Repeat: max. 8 units
Refinement of techniques learned in PHOT 95A emphasizing professional color output. Students produce color prints from color transparencies, negatives and internegatives. Methods include masking techniques when necessary. Explorative techniques such as combination printing, instant print material, collage, and printing with light. A specific color project will be completed that should be of the quality to be included in the students’ portfolio for employment. CSU
PHOT 99. Business Practices of Photography (3)
Lec-3 CR/NC avail.
A course for both commercial and fine art photographers who want to run successful businesses. Topics include writing a business plan, marketing and self-promotion, freelance skills, using computers, legal issues, pricing and estimating, taxes, insurance, and copyright. CSU

PHOT 101-102-103-104. Selected Topics in Photography (1-2-3-4)
Lec-1,2,3,4 and/or lab-2,3,6, field trips CR/NC avail.
Prereq.: As required for topic
Selected topics in photography will be explored through lectures, laboratory or studio demonstrations and exercises, field trips, class discussions, film, video, and/or television leading to a critical analysis and/or practical understanding and application of the topic or skill set under consideration. CSU

PHOT 102A. Basic Architectural Photography
PHOT 102B. Documentary/News Photography

PHOT 117A. Photographic Work Experience (2)
Conf-1, work-10
Repeat: max. 8 units
Work experience is supervised off-campus work in photography or closely allied fields. Students can be employed in any area including but not limited to laboratory technicians, camera operators, or salespersons. These include, but are not limited to newspaper internships, assistant internships, museum internships, gallery internships, and laboratory printing internships. CSU

PHOT 117B. Internship and Work Experience (2)
Conf-1, work-10
Repeat: max. 8 units
Work experience and internships are supervised off-campus work in photography or closely allied fields. Work experience students will supply their own employment. Internship positions are supplied by the photography department when possible to students who have the required skills. CSU

PHOT 118. Independent Study (2)
Ind-st-10 CR/NC avail.
Prereq.: PHOT 85B and either 81B or 95A or demonstration of exit skills
Repeat: max. 4 units
Work on an independent photographic project having significant learning value in photography and acceptable to both the student and the instructor. Projects may be in photographic research, photographic criticism, computer imagery, or any other photographic performance area. CSU

PHOT 130. Portfolio Production (2)
Lec-2 CR/NC avail.
Prereq.: PHOT 93; 81B or 95A, 85B or 90 or demonstration of exit skills
Repeat: max. 4 units
Student production of a professional portfolio that can be used for job applications. The student is advised by the instructor while producing photographs, professionally mounted, which demonstrate depth in a particular area of interest and/or proficiency in several areas of professional photography. CSU

PHOT 150. Photographic Laboratory (0)
Coreq.: Enrollment in a Laboratory Course in Photography
An open laboratory in which students may complete their photographic assignments. Required of all students who are enrolled in a laboratory studio course in photography. CSU

Physical Education and Dance

Announcement of Courses

The following physical education courses are activity courses: 3, 4, 5, and all courses 400 through 599.

CREDIT, DEGREE APPLICABLE COURSES:

P E 3. Dance Composition (3)
Lab-10 CR/NC avail.
Repeat: max. 9 units
A dance class that expands and explores movement techniques. Improvisation and choreographic structures are presented for student study. Culminates with a studio demonstration or theatre performance. CSU/UC

P E 4. Basic Movement (2)
Lec-1, lab-3 CR/NC avail.
Repeat: max. 8 units
Defines general movement vocabulary and employs movement studies that develop skills needed for successful participation in physical activities, particularly dance. CSU/UC

P E 5A-5B-5C. Folk Dance Production (1-2-3)
Lab-2, 4, 6 CR/NC only
Repeat: combination max. 12 units
Courses may be taken in any sequence.
Performance of intermediate-advanced level folk dance arrangements for theatrical production. CSU/UC

P E 6. Prevention and Care of Athletic Injuries (3)
Lec-2, lab-2 CR/NC avail.
Introduces injuries commonly experienced by competitive athletes, discusses conditioning and evaluation methods used to identify and prevent injuries, and the basic management approaches used to treat injuries. Includes clinical experience and laboratory learning. CSU/UC

P E 7. Coaching and Officiating (3)
Lab-3 CR/NC avail.
Develops and augments student's knowledge of coaching and officiating in three selected sports. CSU/UC

P E 8. Introduction to Fitness, Training and Human Performance (3)
Lec-3
Overview of fitness, fitness assessment, training and human performance, including cellular adaptations to exercise, the physiological basis and scope of training, principles of training and training factors, components of training, training states, recovery methods and philosophy of training. CSU
P E 9A. Fit or Fat: Exercise and Diet (2)
Lec-2 CR/NC avail.
Comparison of obesity theories, current weight loss methods and associated technology. Determine and track change in fitness levels, plan a fitness program, and participate in a variety of exercises to promote an active lifestyle, emphasizing weight loss. CSU

P E 10. Appreciation and Analysis of Individual and Team Sports (2)
Lec-2 CR/NC avail.
Emphasis on systems of play, strategy, rules, training programs, organizational procedures, and background for both spectators and participants. CSU/UC
10A. Aquatics–sp
10B. Baseball–sp
10C. Basketball–fa
10D. Football–fa
10E. Individual sports; badminton, bowling, fencing, golf, and tennis–sp
10F. Soccer–fa
10G. Track and Field–sp

P E 11. Analysis of Fastpitch Softball (2)
Lec-1, lab-3 CR/NC avail.
Repeat: max. 8 units
Demonstrates and analyzes the individual offensive and defensive skills required in fastpitch softball, as well as identifying offensive and defensive team strategies necessary for successful game play. CSU

P E 12. Folk, Ballroom, Social, and Square Dance Activities Analysis (2)
Lec-2 CR/NC avail.
Advis: P E 518A and/or P E 535A
Analysis and performance of past and present ballroom, folk and square dances. Dance notations and directions will be compiled and employed. CSU/UC

P E 13. Sport and Society (3)
Lec-3
An introduction to the sociology of sport, to discuss and analyze issues about sports as a part of society. The history of sport, competition, children’s programs, deviance, aggression, coaches in the sport experience, gender, ethnicity, social mobility, the economy, the media, and politics in sports. CSU

P E 17A-17B-17C. Dance Production (1-2-3)
Lab-2,5,7 CR/NC only
Repeat: combination max. 12 units
Courses may be taken in any sequence.
Participation in theatre disciplines such as lighting, sound, stage management, set design and costing; development of choreographing and performing skills to be used in a theatre or studio dance production. CSU/UC

P E 18. CCSF Repertory Dance Company (3)
Lab-9 CR/NC avail.
Repeat: max. 12 units
This course is designed as a touring dance company. Students will learn dance works from faculty and guest choreographers. Touring venues include CCSF, San Francisco high schools, San Francisco Bay Area colleges, local theatres, and public events. Includes workshops on performance techniques and lectures on choreographic theory. CSU/UC

Lab-3, 6, 9 CR/NC only
Advise: PE 535B
Repeat: combination max. 12 units
Courses may be taken in any sequence.
Performance of past and present ballroom dance choreographies in a theatrical or competitive setting. CSU

P E 30. Dance History - Western Culture (3)
Lec-3 CR/NC avail.
Lectures, readings, films and discussions on theory and development of dance from its evolution in anthropological sources to 20th century contemporary dance. This survey history course will touch on the historical basis of dance and will emphasize the history of classical ballet, American/European modern dance, African-Haitian dance and the American idioms of tap and jazz. CSU/UC

P E 70. Intramural Competition (0)
Participation in individual and team sports under game conditions; emphasis on coeducational participation. Students may compete individually or as members of teams representing clubs or special interest groups, but always subject to supervision and to the approval of the instructor. CSU

Intercollegiate Athletics for Men (3)
Lab-10 CR/NC avail.
Prereq.: Athletic Clearance (eligible by rules of the CACC and medical clearance verified by a physician)
Repeat: max. 12 units
Course number, activities and semester as indicated below
Instruction for competition and participation in the Coast Conference of the California Association of Community Colleges (CACC). CSU/UC
P E 400. Baseball sp
P E 401. Basketball fa, sp
P E 402. Cross-country fa
P E 403. Football fa
P E 405. Soccer fa
P E 407. Tennis sp
P E 408. Track and Field sp
Intercollegiate Athletics for Women (3)
Lab-10
CR/NC avail.
Prereq.: Athletic Clearance (eligible by rules of the CACC and medical clearance verified by a physician)
Repeat: max. 12 units
Course numbers, activities and semesters as indicated below Instruction for competition and participation in the Coast Conference of the California Association of Community Colleges (CACC). CSU/UC
P E 451. Badminton sp
P E 453. Tennis sp
P E 455. Basketball fa, sp
P E 456. Track and Field sp
P E 457. Softball sp
P E 458. Volleyball fa
P E 459. Cross-country fa

P E 500A-500B-500C. African-Haitian Dance (1-1-1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Beginning, intermediate, and advanced study of African-Haitian Dance as a vehicle to understand and appreciate the impact and manifestation of the African Culture in the Caribbean and North America. CSU/UC

P E 501A-501B. Archery (1-1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Beginning and intermediate archery. Emphasis on skills, official rules, etiquette, safety, methods of shooting and scoring. CSU/UC

P E 503A-503B. Badminton (1-1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Beginning and intermediate badminton; its history, rules, skills and playing strategies. CSU/UC

P E 504A-504B. Ballet (1-1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Beginning and intermediate ballet barre and center floor techniques. CSU/UC

P E 504C. Advanced Ballet (2)
Lab-4
CR/NC avail.
Repeat: max. 4 units
A continuation of the theory and practice of classical ballet with an emphasis on advanced ballet technique and vocabulary. Application of advanced ballet vocabulary at the barre and in center practice. CSU/UC

P E 505A-505B-505C. Baseball (1-1-1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Beginning, intermediate and advanced baseball. Analysis and practice of the fundamental skills, techniques, and theories of baseball through active participation. Lessons and drills designed to improve and increase awareness of the skills involved in playing baseball. CSU/UC

P E 506A-506B-506C. Basketball (1-1-1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Beginning, intermediate, and advanced basketball; emphasis on skill, agility, body conditioning and endurance. CSU/UC

P E 509. Body Building (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Physical development and muscle toning through weight training. CSU/UC

P E 512. Corrective Physical Education (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
An adaptive exercise class designed to meet specific rehabilitative needs for people with chronic or temporary disabilities, especially those with muscular/skeletal and/or mild/moderate neurological conditions. Body awareness and conditioning techniques are presented to improve body alignment, increase muscular strength and flexibility, and release muscular tension. CSU/UC

P E 513A-513B-513C. Fencing (1-1-1) fa
Lab-2
Repeat: max. 4 units
Beginning, intermediate, and advanced fencing; emphasis on boutting, judging, directing, scoring, parries, ripostes, and fencing with electrical equipment. CSU/UC

P E 518A-518B International Folk Dance (1-1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
In 518A, performance of beginning partner and non-partner folk dances from around the world; 518B continues with intermediate level material. CSU/UC

P E 519A-519B-519C. Football (1-1-1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Introduces the fundamentals of touch football, emphasizes skills, ability, conditioning, endurance, technique, schematics and emphasizes drills which will augment the teaching of technical skills. CSU/UC

P E 520A-520B-520C. Golf (1-1-1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Beginning, intermediate, and advanced golf. Demonstrates basic skills needed to play a round of golf; emphasizes principles of the full swing, the chip, the putt, basic rules of play, golf etiquette and golf terminology. CSU/UC

P E 523A-523B-523C. Jazz Dance (1-1-1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Beginning, intermediate, and advanced jazz dance techniques, patterns, routines, choreography, and improvisation. CSU/UC
P E 524A-524B-524C. Judo (1-1-1)  
Lab-2  
Repeat: max. 4 units  
Beginning, intermediate, and advanced judo. Instruction and practice in the basic skills of the sport of Judo. Terminology, etiquette along with throwing and grappling techniques, with integration of various Katas (forms) and Randori (free exercise). CSU/UC

P E 525. Lifeguard Training (1)  
Lab-2  
CR/NC avail.  
Prereq.: P E 540C or Demonstration of P E 540C exit skills  
Repeat: max. 4 units  
Training in life guarding (no beach) situations; recognizing and preventing life threatening situations. American Red Cross Life Guarding Certificate granted upon successful completion. CSU/UC

P E 526A-526B-526C. Modern Dance (1-1-2)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Beginning, intermediate and advanced dance techniques. Emphasis on body movement through modern dance, improving alignment, muscular endurance, flexibility, coordination, musicality, performance technique, and dance vocabulary appropriate to training. Includes improvisation and choreography. Techniques explored: Graham, Hawkins, Cunningham, Limon, Horton, and Dunham. CSU/UC

P E 527A-527B-527C. Physical Fitness (1-1-1)  
Lab-2  
CR/NC avail.  
Repeat: max. combination 4 units  
Physical fitness classes at all levels are scheduled to help students fit a vigorous and satisfying period of exercise into a pattern for future use. The aim is to help students gain insight into their own personal aptitudes and abilities and also motivate students to explore their own range of movement in terms of agility, flexibility, strength, and endurance. CSU/UC

P E 528. Running and Conditioning (1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Principles and practices of conditioning the body with emphasis on aerobic (cardiovascular) fitness by increasing endurance through running, increasing the body's range of motion through stretching and flexibility activities. CSU/UC

P E 529. Saber Fencing (1) sp  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
An entry-level course that surveys the sport of saber fencing, the general rules and regulations for governing a bout. CSU/UC

P E 530A-530B-530C. Self Defense (1-1-1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Beginning, intermediate, and advanced methods of self-defense. Instruction and practice in the basic techniques of anticipation, avoiding, and when necessary, protecting oneself from attack. Emphasis is on the avoidance of physical confrontation and the discouragement of an attack. CSU/UC

P E 531. Kung Fu (1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
An introduction to the basic skills and physical training methods derived from the unarmed martial arts of South China (chuan fa). CSU

P E 534A-534B-534C. Soccer (1-1-1)  
Lab-2  
CR/NC avail.  
Repeat: max. combination 4 units  
Beginning, intermediate, and advanced soccer. Emphasis on systems of play, strategy, rules, and training program. CSU/UC

P E 535A-535B. Ballroom Dance (1-1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Beginning and intermediate ballroom dance; emphasis on step patterns and dance positions for a complete range of dances. CSU/UC

P E 536. Softball (1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Fundamentals of elementary softball; emphasis on development of team offense and defense. CSU/UC

P E 540A-540B-540C. Swimming (1-1-1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Beginning, intermediate, and advanced skills of swimming. Emphasis on the progression from the basics of water maneuvering to more advanced swimming techniques. CSU/UC

P E 541A. Beginning Tap Dance (1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Introduces the elements of tap vocabulary, explores technique through performance of rhythmic patterns and briefly reviews the history of tap. CSU/UC

P E 541B. Intermediate Tap Dance (1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Develops more complex tap dance skills, based on the refinement of fundamental technique, vocabulary, rhythmic sensibility and knowledge of tap history. CSU/UC

P E 542A-542B-542C. Tennis (1-1-1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Beginning, intermediate, and advanced tennis. Emphasis on rules, etiquette, basic skills, strokes and footwork, scoring, and strategy. CSU/UC

P E 543. Track and Field (1)  
Lab-2  
CR/NC avail.  
Repeat: max. 4 units  
Instruction for competition and participation in the coast conference of the California Association of Community Colleges (CACC). CSU/UC
P E 545A-545B-545C. Volleyball (1-1-1)
Lab-2 CR/NC avail.
Repeat: max. combination 4 units
Beginning, intermediate, and advanced volleyball. Emphasis on passing, serving, spiking, and blocking. CSU/UC

P E 549. Karate (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Instruction and training in modern sport karate involving recreational and/or competitive applications of the various empty hand systems. Emphasis on the development of self-control, positive human interaction and the redirection and avoidance of aggression. CSU/UC

P E 550. Self Defense For Women (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Learn physical, psychological and preventive skills to prevent assault and reduce your risk to personal safety. Emphasis on the development of personal power and self-esteem. Physical defense skills are learned and mastered. CSU/UC

P E 552. Racquetball (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Fundamentals and principals of racquetball which include the essential skills of the game, the racquetball games (singles, double, "cutthroat"), rules, strategies, training, conditioning and injury prevention. CSU/UC

P E 553A-553B-553C. Tai Chi (1-1-1)
Lab-2
Repeat: max. 4 units
Introduction to Tai Chi, a stylized form of movement that promotes both mental and physical well-being. Emphasis on the first portion of the Yang style. CSU/UC

P E 554A. Beginning Yoga (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
An introduction to the principles and practice of yoga as a physical discipline of asanas and breathing exercises which achieves integration of body and mind. A presentation of yoga histories, cultural influences, and current yoga trends. CSU/UC

P E 554B. Intermediate Yoga (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
A continuation of yoga at the intermediate level as a physical discipline of asanas and breathing exercises which achieves integration of body and mind. A continuation of material on yoga histories, cultural influences, and current yoga trends. CSU/UC

P E 554C. Seniors Yoga (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
An introduction, especially for senior citizens, to the principles and practices of yoga as a physical discipline of asanas and breathing exercises which achieves integration of the body and mind. A presentation of yoga histories, culture and current trends, with an emphasis on the role of the senior citizen in Indian and yoga cultures. CSU/UC

P E 555A-555B. Strength and Circuit Training (1-1)
Lab-2 CR/NC avail.
Repeat: combination max. 4 units
Beginning and intermediate class in weight conditioning and circuit training with an emphasis on proper use of free weights and interval training (use of the stair master, treadmill and life cycle) to promote strengthening, toning and cardiovascular fitness. CSU/UC

P E 557. Walking for Fitness (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Principles and practices of conditioning the body with emphasis on aerobic (cardiovascular) fitness by increasing endurance through aerobic walking, and by increasing the body's range of motion through stretching and flexibility activities. CSU/UC

P E 558A-558B-558C. Aerobic Fitness (1-1-1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Beginning, intermediate and advanced techniques with emphasis on cardiovascular endurance utilizing physical activity which increase the heart rate to each individual's target zone. CSU/UC

P E 559. Water Aerobics (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
A physical activity performed in the water with emphasis on the achievement and improvement of cardiovascular endurance, encompassing the special advantages of movement in water. CSU/UC

P E 560A-560B. Latin American Social and Folk Dance Forms (1-1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Developing skill in such dances as Merengue, Tango, and Salsa, while exploring historical and cultural influences. Recognizing musical styles and development. CSU/UC

P E 561. Stretching and Flexibility Development (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
A physical activity to develop the body, with emphasis on increasing the overall flexibility and strength of the major muscle groups. CSU

P E 562. Body Sculpting (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
Introduction to the principles and practices of body sculpting through weight training with hand held weights, dynabands and individual body weight. CSU/UC

P E 564. Dance Conditioning (1)
Lab-2 CR/NC avail.
Repeat: max. 4 units
An introduction to conditioning techniques which promote body awareness, improve body alignment, enhance and expedite dance skills and prevent injury. CSU/UC
P E 565. Step Aerobics (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Introduction to the principles and practices of step aerobics through aerobic training: stepping up and down on adjustable platforms, performing in a routine at about 120 steps per minute. CSU/UC

P E 566. Safety Awareness and Defense (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Assault prevention and personal defense skills designed to increase safety awareness. Basic physical defense skills are taught with an emphasis on streetwise safety strategies and the psychology of assault prevention. CSU/UC

P E 567. Dance Aerobics (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
This course is designed to use the dance vocabulary of contemporary street funk, jazz, ballet, modern and traditional African dance to develop, increase and maintain cardiovascular ability, strength, muscular coordination, agility and postural awareness. CSU/UC

P E 568. Walking for Fitness in San Francisco (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Principles and practices of walking for fitness by participation in weekly walks throughout the city of San Francisco. CSU/UC

P E 569. Beginning Pointe Technique (1)
Lab-2
CR/NC avail.
Prereq.: PE 504B or 504C and/or a screening test evaluating technique
Repeat: max. 4 units
Theory and practice of basic pointe technique which includes a historical review, relevant foot anatomy, selection, preparation, and care of pointe shoes, pre-pointe exercises, elementary pointe vocabulary, and safety guidelines to prevent injury. CSU/UC

P E 570. Swing Dance Forms (1)
Lab-2
CR/NC avail.
Repeat: max. 3 units
An introductory experience of the popular American social dances known as Swing, and an exploration of the cultural scene that created them. Surveys historical dance varieties and East Coast/West Coast regional differences, as well as the latest trends and styles. CSU/UC

P E 572. Jujitsu (1)
Lab-2
CR/NC avail.
Repeat: max. 4 units
Instruction and practice in the basic skills of Jujitsu. Course will cover the terminology, etiquette along with throwing, grappling, and submission techniques with an emphasis on self-defense techniques. CSU/UC

P E 573A-573B. Hip-Hop Dance (1)
Lab-2
CR/NC avail.
Repeat: combination max. 4 units
Beginning and intermediate hip-hop dance techniques, patterns, routines, choreography and improvisational group projects/presentations. CSU/UC

BCST 117. Sports Announcing and Production (3)
Lec-3, lab-3
Repeat: max. 6 units
Prereq.: BCST 115 and 131 or 140 or equivalent skills
All aspects of sports announcing and production for radio, television, cable, satellite, and the internet. An exploration of sports coverage history, issues, technology, production, play-by-play announcing, color announcing, and career opportunities. Students will announce and produce live and live-on-tape broadcasts of City College sports events. CSU

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Physical Science

Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSE:

P SC 11. Physical Science (3)
Lec-3, conf-1
Not open to students who have completed a college-level course in physics, physical science, chemistry, geology, or astronomy with a final grade of C or higher
A conceptual, almost non-mathematical, introduction to the physical sciences. Topics from physics, chemistry, geology, astronomy, oceanography, and meteorology. Emphasis on topics which lead to a better understanding of our technological society and physical environment. CSU/UC

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Physics

Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:

PHYC 2A-2B. Introductory Physics (3-3)
Lec-3, conf-1
Required of premedical, biology, and some architecture students
Prereq.: PHYC 2A: HS Physics or PHYC 40, and HS Trigonometry or MATH 95 PHYC 2B: PHYC 2A
Coreq.: PHYC 2A: PHYC 2AL PHYC 2B: PHYC 2BL
Lectures illustrating principles of physics. CSU/UC/CAN

PHYC 2A. Mechanics, fluids, heat, and sound.

PHYC 2B. Electricity, magnetism, light, and selected topics in modern physics.
PHYC 2AC-2BC. Introductory Physics–Calculus Supplement (0.5-0.5)
Lec-1, conf-0.5 (9 wks)
Required of some premedical, biology, and architecture students. CSU/UC
Prereq.: PHYC 2AC: MATH 110A or 100A; Completion/concurrent enrollment in PHYC 2A
PHYC 2BC: MATH 110B or 100B; completion/concurrent enrollment in PHYC 2B
PHYC 2AC. The application of calculus to topics in mechanics, fluids, heat and sound.
PHYC 2BC. The application of calculus to topics in electricity, magnetism, light, and modern physics. (spring semester only)

PHYC 2AL-2BL. Introductory Physics Laboratory (1-1)
Lab-3
Required of premedical, biology, and some architecture students
Prereq.: PHYC 2AL: Completion/concurrent enrollment in PHYC 2A
PHYC 2BL: Completion/concurrent enrollment in PHYC 2B
Laboratory experiments. CSU/UC/CAN
PHYC 2AL. Mechanics, fluids, heat, and sound.
PHYC 2BL. Electricity, magnetism, and light.

PHYC 4A-4B-4C-4D. Physics for Scientists and Engineers (3-3-3-3)
Lec-3, conf-1
Required of physics, chemistry, and engineering majors planning to transfer to the University of California, Berkeley, or into other engineering or physical science Transfer programs.
Prereq.: PHYC 4A: HS Physics or PHYC 4I, and Completion/concurrent Enrollment in MATH 110B
PHYC 4B: PHYC 4A, and MATH 110B;
PHYC 4C: PHYC 4B; PHYC 4D: Completion Enrollment in PHYC 4C and MATH 110C
Coreq.: PHYC 4A: PHYC 4AL; PHYC 4B: PHYC 4BL; PHYC 4C: PHYC 4CL; PHYC 4D: PHYC 4DL
Advise: PHYC 4D/4DL and Completion/concurrent enrollment in PHYC 4C/4CL
Mathematical development of physics. CSU/UC/CAN
PHYC 4A. Mechanics.
PHYC 4B. Electricity and magnetism, and AC circuit theory.
PHYC 4C. Waves, geometrical and physical optics, and thermodynamics.
PHYC 4D. Relativity and quantum mechanics.

PHYC 4AL-4BL-4CL-4DL. Physics Laboratory for Scientists and Engineers (1-1-1-1)
Lab-3
Required of physics, chemistry, and engineering majors planning to transfer to the University of California, Berkeley, or into other engineering or physical science transfer programs.
Prereq.: PHYC 4AL: Completion/concurrent enrollment in PHYC 4A
Coreq.: PHYC 4BL: PHYC 4B; PHYC 4CL: PHYC 4C; PHYC 4DL: PHYC 4D
Laboratory experiments. CSU/UC/CAN
PHYC 4AL. Mechanics, measurements, fluids.
PHYC 4BL. Electricity and magnetism; emphasis on oscilloscope measurement techniques.
PHYC 4CL. Experiments in sound, Fourier analysis, electrical oscillations and waves, geometrical and physical optics.
PHYC 4DL. Laboratory experiments in modern physics.

PHYC 10. Conceptual Physics (3)
Lec-3
A conceptual, almost non-mathematical, introduction to physics with demonstrations. Topics from mechanics, properties of matter, heat, sound, electricity, magnetism, light, nuclear physics, and relativity. Emphasis on topics that lead to a better understanding of our technological society and physical environment. CSU/UC

PHYC 10L. Conceptual Physics Laboratory (1)
Lab-3
Required for students enrolled in the curriculum in RADL.
Prereq.: Completion/concurrent enrollment in PHYC 10
Laboratory experiments involving basic physics concepts.
Emphasis on concept development, data handling, and laboratory skills. CSU/UC

PHYC 40. Elementary Physics (3)
Lec-3, conf-1
Prereq.: Trigonometry or Completion/concurrent enrollment in MATH 95
Elementary physics, emphasizing problem solving in kinematics, forces, energy, momentum, fluids, and electricity. CSU/UC

PHYC 41. Preparatory Physics (3)
Lec-3, conf-1
Prereq.: Completion/concurrent enrollment in MATH 110A
Elementary physics, emphasizing concepts and problem solving in kinematics, forces, energy, momentum, electricity, magnetism, vibrations and wave phenomena. CSU/UC

Pilipino
Announcement of Courses

CREDIT, DEGREE APPLICABLE COURSES:

PIL. 1. Elementary Pilipino (5)
Lec-5, lab-2, CR/NC avail.
Advise: ENGL 94 or ESL 82 or completion of any City College or university foreign language course.
Beginner's course. Grammar, composition, and reading. Practice in speaking and understanding simple Pilipino. CSU/UC