MATH 120   Elementary Statistics   (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility deter-mined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 120, and PSYC/SOC 205, combined: maximum credit, one course*
Selected topics include tabular and graphical representation of data, counting principles, permutations, combinations, discrete and continuous probability distributions, sampling distributions, the Central Limit Theorem, an introduction to inferential statistics, and simple linear regression analysis. Applications from the fields of business, economics, life sciences, social sciences, and the physical sciences.

MATH 130   Calculus for the Social Sciences   (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 110 or eligibility determined through the math placement process*
Note: *Not open to students with credit in MATH 140*
Transfer acceptability: *CSU; UC – MATH 130 and 140 combined: maximum credit, one course*
Functions and their graphs including exponential and logarithmic functions, single variable calculus, limits, differentiation, integration and their applications, multivariable calculus, with application to business, social sciences and behavioral science.

MATH 135   Precalculus Mathematics   (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 115 or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 110 and 135 combined: maximum credit, one course.*
Designed for students who intend to take calculus. Emphasizes study of the behavior and characteristics of functions from graphic, numerical, analytic, and applied perspectives. Includes trigonometric functions, general polynomial functions, rational functions, exponential functions, logarithmic functions, absolute value functions, functions with rational exponents, and sequences. Selected topics from analytic geometry and linear systems are also presented.

MATH 140   Calculus With Analytic Geometry, First Course   (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 135, or MATH 110 and MATH 115, or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 130 and 140 combined: maximum credit, one course*
An introduction to analytic geometry, differentiation and integration of algebraic and transcendental functions of a single variable, and applications of differentiation.

MATH 141   Calculus With Analytic Geometry, Second Course   (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 140*
Transfer acceptability: *CSU; UC*
Continuation of MATH 140. Topics include definite integrals and their applications; methods of integration (including the use of modern computational technology as appropriate); indeterminate forms; improper integrals; sequences; infinite series; Taylor series; conic sections; polar coordinate; and parametric equations from analytic, graphic, and numeric perspectives.

MATH 146   Fortran-90 for Mathematics and Science   (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 135 or MATH 110 and MATH 115, or a passing grade on the appropriate placement test*
Note: *Cross listed as CSCI 146*
Transfer acceptability: *CSU; UC*
Programming in FORTRAN 90 to solve typical problems in mathematics, computer science, physical sciences, and engineering. Programming is done on a PC.

MATH 197   Mathematics Topics   (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *A minimum grade of 'C' in either MATH 56 or MATH 60, or eligibility determined through the math placement process*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus*
Topics in Mathematics. See Class Schedule for specific topic offered. Course title will designate subject covered.

MATH 200   Introduction to Linear Algebra   (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 141*
Transfer acceptability: *CSU; UC*
Matrices, determinants, vectors, linear dependence and independence, basis and change of basis, linear transformations, and eigen values.

MATH 205   Calculus With Analytic Geometry, Third Course   (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 141*
Transfer acceptability: *CSU; UC*
Vectors in the plane and space, three-dimensional coordinate system and graphing, vector-valued functions and differential geometry, partial differentiation, multiple integration, and vector calculus.

MATH 206   Calculus With Differential Equations   (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 205*
Transfer acceptability: *CSU; UC*
A first course in ordinary differential equations from analytic, geometric, numeric and applied perspectives (including the use of modern computational technology as appropriate). Topics include exact, separable, and linear equations; initial value and boundary-value problems; systems of first-order equations; reduction of order; undetermined coefficients; variation of parameters; series solutions; and Laplace transforms.

MATH 245   Discrete Mathematics   (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 130 or MATH 140, or a passing score on the appropriate placement test*
Transfer acceptability: *CSU; UC*
The study of prepositional and predicate logic, number theory and methods of proof, elements of set theory, relations and functions, the Pigeonhole Principle, sequences, infinite sets, basic counting techniques, permutations, combinations, graphs and trees, and applications directed to the field of computer science.

Medical Assisting

See Office Information Systems (OIS)

Medical Assisting Clinical not offered at Palomar College

Microbiology (MICR)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

COURSE OFFERINGS

MICR 110   Microbiology and Foods   (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as FCS 110*
Transfer acceptability: *CSU*
Introduction to the principles of microbiology with an emphasis on foodborne pathogens. Students will explore biological factors and controls relating to reproduction of microorganisms and the effects on public health. This course does not meet microbiology requirement for pre-health students.

MICR 197   Microbiology Topics   (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Microbiology. See Class Schedule for specific topic offered. Course title will designate subject covered.

MICR 200   Fundamentals of Microbiology   (4)
2 hours lecture - 7 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 102; or BIOL 200 and CHEM 104 or CHEM 100; or BIOL 100 and CHEM 104 or CHEM 100; or BIOL 105 and CHEM 104 or CHEM 100; or BIOL 101, BIOL 101L and CHEM 104 or CHEM 100*
Transfer acceptability: *CSU; UC*
Fundamentals of microbiology including medical aspects of microbiology.

Multicultural Studies (MCS)

See also Africana Studies, American Indian Studies, American Studies, Chicano Studies, Judaic Studies

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: MD-354

COURSE OFFERINGS

MCS 100   Introduction to Multicultural Studies   (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Social, cultural and political awareness of diverse national and international systems of thought and multicultural groups as revealed through their social institutions and cultural traditions emanating from family, community and nation - state.

MCS 110   Diverse Cultures in America Today   (3)
3 hours lecture
Note: *Cross listed as AMS 110*
Transfer acceptability: *CSU; UC*
An investigation of prevalent cultural trends in four groups of diverse ethnic and cultural backgrounds in America -- African Americans, Latinos, Chinese, and people of Jewish heritage -- since World War II. Emphasis will be placed on the literary, musical, and artistic expressions of their heritage, social conditions, struggle to become part of the main culture, and response to prejudice, racial, and religious discrimination. Selections dealing with social conditions will include such diverse issues as family life, intergenerational conflicts, and religious traditions.

MCS 115   Graphics and Media: A Multicultural Perspective   (3)
3 hours lecture
Note: *Cross listed as GC 115*
Transfer acceptability: *CSU; UC*
An introduction to the impact of media technology on the visual arts from a multicultural perspective. Includes print, Internet, multimedia, and game design. Embraces the diversity and multicultural perspectives that reflect American demographics by presenting individual and collaborative contributions as well as strategies for designing niche marketing and advertising graphics for a multicultural society. Addresses the impact of globalization. Examines gender, ethnicity (African American, American Indian, Asian-Americans and/or Pacific Islanders, and Mexican American in particular), age, sexual orientation, and universal access for people with impairments.

**MCS 120   The Middle East: From Ancient Cultures
                to Modern Influences   (3)**
3 hours lecture
Transfer acceptability: *CSU; UC*
Explores the development of Middle Eastern cultures and traditions beginning with Mesopotamia and Egypt becoming the cradles of Western civilization to the present. Emphasis on the cultural milieu in which the three monotheistic religions, Judaism, Christianity and Islam, were born. The focus will be on cultural traditions as opposed to religious aspects. The influences of Greek, Roman, and Eastern civilizations in the region, including literary, philosophical, musical, and artistic creations by Middle Easterners in the past century. Discussions will also focus on the current cultural conflicts between religious traditions and cultural groups.

MCS 122   Survey of Middle Eastern History   (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the history, cultures and religions of the Arab world including the emergence of Islam as a major world religion, and the impact of the Arab conquests on the Mediterranean world.

MCS 124   Islamic Cultures and Traditions   (3)
3 hours lecture
Note: *Cross listed as RS 124*
Transfer acceptability: *CSU; UC*
An introductory course designed for students with a general interest in the Islamic world, including its history and cultural traditions. Examines the main social, traditional and legal institutions of Islam.

MCS 125   Women, Culture, and Islam   (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course examines the history of women in Islamic societies from the advent of Islam in the 1st AH/7th CE to present day. Drawing on a variety of primary and secondary sources in written texts and from the Internet, this course explores the role of women in Islam as a religion, cultural experience, and tradition, along with the wide range of women's experiences throughout different periods of history and in diverse Muslim societies.

MCS 157   Theatre and Social Justice   (3)
3 hours lecture
Note: *Cross listed as TA 157; may be taken 3 times*
Transfer acceptability: *CSU*
The study and practice of theatre as a vehicle for understanding global conditions of social injustice and working to create justice in local communities.

MCS 165   Introduction to Asian American Studies   (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course is an introduction to Asian American Studies. It focuses on the lives and experiences of Asian Americans in the United States. It surveys the history of immigration and cultural assimilation of the different Asian American groups in the U.S. As such, the course will utilize historical perspectives, literature, and film to examine the Asian American experience and the changing roles and contributions of Asian Americans in American society.

MCS 197   Multicultural Studies Topics   (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Multicultural Studies. See Class Schedule for specific topic offered. Course title will designate subject covered.

MCS 200   Race, Class, and Ethnic Groups in America (3)
3 hours lecture
Note: *Cross listed as AMS 200/SOC 200*
Transfer acceptability: *CSU; UC*
This course is designed to introduce the topics of intergroup relations in general to superordinate-subordinate relations in particular, as exemplified in various racial, ethnic, social class, and cultural groups. Emphasis is primarily on contemporary relations in the United States, although a comparative perspective is also offered.