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  
C-ID MATH 221  
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  
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  
C-ID MATH 250  
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  
C-ID MATH 230  
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  
C-ID MATH 240  
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  
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 Business (BUS)  
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.  
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; or ZOO 203  
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
This course is designed to introduce the topics of intergroup relations in 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-American, and Pacific Islander), and Mexican American, as well as age, sexual orientation, and universal access for people with impairments.

MCS 124  Islamic Cultures and Traditions  (3)
3 hours lecture
Note: Cross listed as RS 124
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 125  Women, Culture, and Islam  (3)
3 hours lecture
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.

MCS 157  Theatre and Social Justice  (3)
3 hours lecture
Note: Cross listed as TA 157
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 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.

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.
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
C-ID SOCI 150
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.

Music (MUS)
Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: PAC-122

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Music

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Digital Animation, Compositing, and Music
• Basic Music Skills

Program Requirements
MUS 100  Music Appreciation  3
MUS 103  Fundamentals of Music  3
MUS 115  Basic Keyboard I  .5
MUS 117  Basic Keyboard II  .5
MUS 130  Fundamental Vocal Skills  .5
MUS 175  Beginning Guitar  .5
MUS 180  Computer Music I  3

Electives (Select a minimum of 4.5 units)
MUS 101  Survey of 20th Century Music  3
MUS 102  Introduction to Jazz  3
MUS 131  Vocal Literature and Performance  .5
MUS 134  Palomar Women’s Chorus  1
MUS 138/  
DNCE 138  Cuban and Brazilian Drumming II  .5 - 1
MUS 143  Palomar Chorale Chamber Ensemble  .5 - 1
MUS 147  Concert Choir  1
MUS 148  Palomar Chorale  1
MUS 149  Spectrum Pop/Jazz Singers  1
MUS 150  Musical Theatre - Vocal  .5 - 1
MUS 151  Concert Band  1
MUS 152  Jazz Ensemble  1
MUS 155  Chamber Ensemble - Brass  1
MUS 157  Guitar Ensembles  1
MUS 158  Chamber Singers  .5 - 1
MUS 161  Summer Concert Band  .5
MUS 162  Summer Stage Band  .5
MUS 171  World Music  1
MUS 172  Repertory Jazz Ensemble  1
MUS 176  Intermediate Guitar  .5
MUS 179  Beginning Flamenco Guitar  .5
MUS 184  Electronic Ensemble  1
MUS 187  Computer Music Composition  1
MUS 198  Palomar Symphony Orchestra  .5 - 1
MUS 224  Introduction to Jazz Piano  .5

TOTAL UNITS  15.5