

**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 propositional 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

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 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**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.

**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

**PROGRAMS OF STUDY****Basic Music Skills**

The primary purpose of this certificate is to provide basic music skills and music fluency. The knowledge gained may be particularly valuable to pre-school or elementary school teachers, music therapists, recreational therapists, multimedia specialists, video game designers, or other creative artists who use music to complement their primary art form.

**CERTIFICATE OF PROFICIENCY****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	3
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**