# 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.