ASTR 100	Principles of Astronomy	3
CHEM 200	General Chemistry I	5
CHEM 210	General Chemistry II	5
GEOL 100	Principles of Geology	3
MATH 130	Introduction Computer Programming	4
MATH 250	Analytic Geometry and Calculus I	5
MATH 251	Analytic Geometry and Calculus II	4
MATH 252	Analytic Geometry and Calculus III	4
PHYS 270	Principles of Physics I	3
PHYS 271	Principles of Physics Laboratory I	1
PHYS 272	Principles of Physics II	3
PHYS 273	Principles of Physics II	1
PHYS 274	Principles of Physics III	3
PHYS 275	Principles of Physics Laboratory III	1
	Total units	**45**

To earn an associate degree, additional general education and graduation requirements must be completed. See page 64.

* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Transfer Center. See catalog TRANSFER COURSES INFORMATION section on page 45 for further information.

PHYSICS

SCHOOL OF MATHEMATICS, SCIENCE, AND ENGINEERING

DEAN: Michael Odu, Ph.D., Office 215A, 619-482-6344
FACULTY: Hok Kong Lee, Ph.D.; Jeffrey Veal, Ph.D.
DEPARTMENT CHAIR: Jeffrey Veal, Ph.D.

GENERAL DESCRIPTION

Physics is the most fundamental science and underlies our understanding of nearly all areas of science and technology. In a broad sense, physics is concerned with the study of energy, space, matter, the interactions between matter and the laws which govern these interactions. More specifically, physicists study mechanics, heat, light, electric and magnetic fields, gravitation, relativity, atomic and nuclear physics, and condensed-matter physics.

CAREER OPTIONS

Below is a sample of the career options available for the physics major. A few of these require an associate degree, some require a bachelor's degree, and most require a graduate-level degree: research assistant, laboratory technician, high school or college instructor, technical writer and research or applied physicist in acoustics, atmospheric physics, astrophysics, astronomy, atomic and molecular physics, electricity and magnetism, electronic instrumentation, energy conservation, geophysics, health physics, mechanics, heat or light physics, medical imaging, nuclear medicine, solar energy, nuclear physics, engineering, and scientific computing.

DEGREE/CERTIFICATE OPTIONS — MAJOR CODE

Associate in Science Degree: Transfer Preparation

Physics	01680
Physics (SB 1440)	01685

Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

Websites for physics majors:
SDSU: http://physics.sdsu.edu/
UCSD: http://physics.ucsd.edu/
CSU, San Marcos: http://physics.csusm.edu/
Articulation: http://assist.org

ASSOCIATE IN SCIENCE DEGREE

PHYSICS

ASSOCIATE IN SCIENCE DEGREE
TRANSFER PREPARATION* (MAJOR CODE: 01680)

Physicists are engaged in applying the fundamental principles of science to problems ranging from understanding life processes to exploring the universe. Specializations include mechanics, heat, optics, acoustics, electrodynamics, astrophysics, atomic physics, biophysics, and geophysics.

Program Student Learning Outcome Statement:

- Develop mathematical skills, acquire physics knowledge, and practice applying these skills and knowledge in physical situations.

FIRST SEMESTER

CHEM 200	General Chemistry I	5
MATH 250	Analytic Geometry and Calculus I	5

SECOND SEMESTER

MATH 251	Analytic Geometry and Calculus II	4
PHYS 270	Principles of Physics I	3
PHYS 271	Principles of Physics Laboratory I	1

Some courses within this program may require additional coursework that must be completed prior to enrollment in these courses. Please consult the individual course listings for prerequisites and any other limitations on enrollment.

THIRD SEMESTER

MATH 252	Analytic Geometry and Calculus III	4
PHYS 272	Principles of Physics II	3
PHYS 273	Principles of Physics II	1

FOURTH SEMESTER

PHYS 274	Principles of Physics III	3
PHYS 275	Principles of Physics III	1
	Total units	**30**

To earn an associate degree, additional general education and graduation requirements must be completed. See page 64.

* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Transfer Center. See catalog TRANSFER COURSES INFORMATION section on page 45 for further information.

PHYSICS

STUDENT TRANSFER ACHIEVEMENT REFORM (STAR) ACT (SB1440)

Associate Degree for Transfer
A Degree with a Guarantee.

ASSOCIATE IN SCIENCE DEGREE TRANSFER PREPARATION * (MAJOR CODE: 01685)

Physicists are engaged in applying the fundamental principles of science to problems ranging from understanding life processes to exploring the universe. Specializations include mechanics, heat, optics, acoustics, electrodynamics, astrophysics, atomic physics, biophysics, and geophysics.

Program Student Learning Outcome Statement:

- Develop mathematical skills, acquire physics knowledge, and practice applying these skills and knowledge in physical situations.

REQUIRED CORE:

PHYS 270	Principles of Physics I	3
PHYS 271	Principles of Physics Laboratory I	1
PHYS 272	Principles of Physics II	3
PHYS 273	Principles of Physics Laboratory II	1
PHYS 274	Principles of Physics III	3
PHYS 275	Principles of Physics Laboratory III	1
MATH 250	Analytic Geometry and Calculus I	5
MATH 251	Analytic Geometry and Calculus II	4
MATH 252	Analytic Geometry and Calculus III	4
	Total units	**25**

* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Transfer Center. See catalog TRANSFER COURSES INFORMATION section on page 45 for further information.

POLITICAL SCIENCE

SCHOOL OF ARTS, COMMUNICATION, AND SOCIAL SCIENCES

ACTING DEAN: William Kinney, M.A., Office 702B, 619-482-6372
FACULTY: Alma Aguilar, M.A.; Phil Saenz, J.D.
DEPARTMENT CHAIR: Stanley James, M.A.

GENERAL DESCRIPTION

Political science is the study of the theory and practice of government. Prelaw is the preparation for the study of application of law within the juridical system of government. Public administration is the study of the implementation practices of the governmental agencies and legal bodies. These three departments are closely related through the common interests of the people and in service of the populace either at the local, state, or national level. These departments explore social behavior, customs, rules, and practices within the context of the self-defined common good of the community and the willingness of the members of the community to delegate authority under proscribed conditions to individuals, groups, and agencies.