SANTA MONICA COLLEGE
PROGRAM OF STUDY

General Science
Associate in Arts (AA)

(effective Not Specified, Not Specified)

The Associate in Arts degree in General Science involves satisfactory completion of a minimum of 60 semester units with a C average or higher including at least 20 semester units in the General Science area of emphasis (articulated below), fulfillment of Global Citizenship requirement, and fulfillment of all Santa Monica College general education requirements, CSU GE or IGETC. *Students must complete the area of emphasis (major) requirements in effect at the time enrollment begins or the requirements in effect at graduation as long as continuous enrollment is maintained. *Continuous enrollment is defined as enrollment in each Fall and Spring semester until graduation. At least 50% of the area of emphasis (major) units must be completed at Santa Monica College. Each course in the area of emphasis (major) must be completed with a grade of C or higher.

This Associate degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including the semester units of the area of emphasis (articulated below), fulfillment of the Global Citizenship requirement, and fulfillment of all Santa Monica College general education requirements, CSU GE, or IGETC. At least 50% of the area of emphasis units must be completed at Santa Monica College. Each course in the area of emphasis must be completed with a grade of C or higher. Additional graduation requirements for the Associate degree are available at the Transfer/Counseling Center and online at www.smc.edu/articulation.

Catalog rights dictate that a student may satisfy the requirements of a degree or certificate by completing the general education and area of emphasis requirements in effect at any time of the student's continuous enrollment. Continuous enrollment is defined as enrollment in consecutive Fall and Spring semesters until completion.

Program Learning Outcomes:

Students completing a degree in General Science will demonstrate through oral, written and laboratory-based academic work knowledge of the physical and life sciences and be prepared to pursue further study in a science major at the baccalaureate level. Students will be proficient in the scientific method, research, analytical, and communication skills necessary to present a critical analysis of scientific phenomena and devise solutions.

Area of Emphasis

GENERAL SCIENCE (20 units)
Select from the following three groups:

GROUP A: MATHEMATICS

		Units
At least one course required: (3 units minimum)		
MATH 2	Precalculus	5
MATH 7	Calculus 1	5
MATH 8	Calculus 2	5
MATH 10 *(same as CS 10)*	Discrete Structures	3
MATH 11	Multivariable Calculus	5
MATH 13	Linear Algebra	3
MATH 15	Ordinary Differential Equations	3
MATH 18	Intermediate Algebra for Statistics and Finite Mathematics	3
MATH 20	Intermediate Algebra	5
MATH 21	Finite Mathematics	3
MATH 26	Functions and Modeling for Business and Social Science	3
MATH 28	Calculus 1 for Business and Social Science	5
MATH 29	Calculus 2 for Business and Social Science	3
MATH 32 *	Plane Geometry	3

MATH 41	Mathematics for Elementary School Teachers	3
MATH 49 ^	Beginning and Intermediate Algebra for Statistics and Finite Mathematics	6
MATH 54	Elementary Statistics	4

GROUP B: PHYSICAL SCIENCE (3 units minimum)		**Units**
At least one course required: (3 units minimum)		
GEOG 1	Introduction to the Natural Environment	3
GEOG 3	Weather And Climate	3
GEOG 5	Physical Geography With Lab	4
GEOG 35F	Field Study California	1
GEOG 35S	Geography Field Studies	1
ASTRON 1	Stellar Astronomy	3
ASTRON 2	Planetary Astronomy	3
ASTRON 3	Stellar Astronomy With Laboratory	4
ASTRON 4	Planetary Astronomy with Lab	4
ASTRON 5	Life In The Universe	3
ASTRON 7	Cosmology	3
ASTRON 8	Introduction to Astrophysics	3
ASTRON 9	Astrophysics with Calculus	3
CHEM 9	Everyday Chemistry	5
CHEM 10	Introductory General Chemistry	5
CHEM 11	General Chemistry I	5
CHEM 12	General Chemistry II	5
CHEM 19	Fundamentals of General, Organic, and Biological Chemistry	5
CHEM 21	Organic Chemistry I	5
CHEM 22	Organic Chemistry II	4
CHEM 24	Organic Chemistry II Laboratory	2
CHEM 31	Biochemistry I	5
GEOL 1	Physical Geology without Lab	3
GEOL 3	Introduction to Environmental Geology	3
GEOL 4	Physical Geology with Laboratory	4
GEOL 5	Earth History	4
GEOL 31	Introduction to Physical Oceanography	3
GEOL 35A	Geology Field Studies: Anza-Borrego Desert, California	1
GEOL 35B	Geology of the Baja California Peninsular and Sonora, Mexico	1
GEOL 35C	Geology of Central California	1
GEOL 35D	Geology of Death Valley and Basin-and-Range Desert, CA and NV	1
GEOL 35E	Field Studies: Geology of Eastern Colorado Desert:	1
GEOL 35F	San Francisco Bay and surroundings	1
GEOL 35G	Field Studies: Geology of Grand Canyon and Colorado Plateau in AZ, UT, NM, CO	1
GEOL 35H	Field Studies: Hawai'ian Island	1
GEOL 35I	Field Studies: Inyo and Eastern Sierra Nevada, CA and NV	1
GEOL 35J	Field Studies: Joshua Tree National Park, CA	1
GEOL 35K	Field Studies: Kings Canyon and Sequoia National Parks, CA	1
GEOL 35L	Field Studies: Los Angeles Basin	1
PHYSCS 6	General Physics 1 with Lab	4
PHYSCS 7	General Physics 2 with Lab	4
PHYSCS 8	Calculus-based General Physics 1 with Lab	4
PHYSCS 9	Calculus-based General Physics 2 with Lab	4

PHYSCS 12	Introductory Physics Non-Lab	3
PHYSCS 14	Introductory Physics With Laboratory	4
PHYSCS 21	Mechanics With Lab	5
PHYSCS 22	Electricity And Magnetism with Lab	5
PHYSCS 23	Fluids, Waves, Thermodynamics, Optics with Lab	5
PHYSCS 24	Modern Physics With Lab	3

GROUP C: LIFE SCIENCES (3 units minimum)		**Units**
At least one course required:		
ANTHRO 1	Physical Anthropology	3
ANTHRO 5	Physical Anthropology With Lab	4
ANTHRO 8	Lab. Methods in Physical Anthropology	1
ANTHRO 9	Paleoanthropology	3
ANTHRO 10	Forensic Anthropology	3
NUTR 1	Introduction To Nutrition Science	3
NUTR 4	Healthy Lifestyle Food And Fitness	3
PSYCH 2	Physiological Psychology	3
ZOOL 5	Introductory Zoology	4
ZOOL 17	Field Zoology	4
ANATMY 1	Human Anatomy	4
ANATMY 2	Advanced Human Anatomy	4
BIOL 2	Human Biology	3
BIOL 3	Fundamentals Of Biology	4
BIOL 4	Modern Applications Of Biology	4
BIOL 9	Environmental Biology	3
BIOL 15	Marine Biology With Laboratory	4
BIOL 15N	Marine Biology (Non-Laboratory)	3
BIOL 21	Cell Biology And Evolution	4
BIOL 22	Genetics And Molecular Biology	4
BIOL 23	Organismal And Environmental Biology	5
BIOL 45	Field Studies In Natural History	0.5
BIOL 45B	Tahitian Natural History and Marine Biology	2
BIOL 45F	Natural History - Yellowstone In The Winter	1
BIOL 45H	Coastal Wetlands	1
BIOL 45I	Natural History of Southern California	2
BIOL 45K	Field Studies - Natural History Of The Owens Valle	0.5
BIOL 45L	Natural History of the San Jacinto Mountains	0.5
BIOL 45N	Vertebrate Field Studies of Southern California	3
BIOL 45Q	Natural History of the Santa Monica Mountains	1.5
BIOL 45V	Natural History And Marine Biology Of Belize	1
BIOL 45W	Field Research Project	2
BIOL 45Y	Natural History of the Amazon	1
BIOL 45Z	Vertebrate Field Research Project	2
BIOL 46A	Natural History of Southern California	3
BIOL 46B	Aspects Of Field Ornithology	2
BIOL 46C	Natural History And Marine Biology Of The Galapagos Islands	1
BIOL 46D	Field Studies In Conservation Biology	2
BIOL 46E	Natural History of Bodie Hills	1
BIOL 46F	Field Studies In Conservation Biology	2
BIOL 46G	Natural History And Marine Biology Of Costa Rica	1

BIOL 46H	Field Studies - Introduction To Bird Banding	2
BIOL 75	Biotechnology Methods	5
BIOL 75N	Biotechnology and Molecular Biology	3
BIOL 88A	Independent Studies In Biological Sciences	1
BIOL 88B	Independent Studies In Biological Sciences	2
BIOL 88C	Independent Studies In Biological Sciences	3
BIOL 90A	Life Science Internship	1
BIOL 90B	Life Science Internship	2
BIOL 94C	Cell and Molecular Biology Research Methods	2
BOTANY 1	General Botany	4
BOTANY 3	Field Botany	4
MCRBIO 1	Fundamentals Of Microbiology	5
PHYS 3	Human Physiology	4

Additional graduation requirements for the Associate in Arts degree from Santa Monica College are listed on a separate sheet in the Transfer/Counseling Center, as well as online (go to www.smc.edu/articulation).

Total Units for Area of Emphasis: 9

*if completed Fall 2006 or later

^Only 3 units apply to the degree

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