

PHYSICAL SCIENCES

Associate in Science - Chemistry

Associate in Science - Physics

Transfer Program

The Physical Science Department is designed to give the student breadth in the physical sciences while providing considerable strength in one of the specialized science fields of chemistry, geology, or physics. The lower-division program in the physical science major is virtually the same as that taken in the first two years of college by a chemistry major, physics major, or geology major, thus enabling students to transfer among these majors if they so choose. A major in physical science can serve as preparation for further study in technical fields and serves as an excellent background for professional training in law, business, medicine, or education.

ASSOCIATE IN SCIENCE - CHEMISTRY

Core and Selective Requirements

Complete Core Courses, 30 units

CHEM 210 General Chemistry I	5.0
CHEM 220 General Chemistry II	5.0
CHEM 234 Organic Chemistry I	3.0
CHEM 237 Organic Chemistry Laboratory I	2.0
CHEM 235 Organic Chemistry II	3.0
CHEM 238 Organic Chemistry Laboratory II	2.0
MATH 251 Analytical Geometry and Calculus I	5.0
MATH 252 Analytical Geometry and Calculus II	5.0

Total Units of Core Courses (required): 30.0

Selective courses: choose a minimum of 8.0 units from the following list:

PHYS 210 General Physics I	4.0
PHYS 220 General Physics II	4.0
PHYS 250 Physics with Calculus I	4.0
PHYS 260 Physics with Calculus II	4.0
PHYS 270 Physics with Calculus III	4.0

Associate Degree Unit Requirements Total 38.0 *

ASSOCIATE IN SCIENCE - PHYSICS

Core and Selective Requirements

Complete Core Courses, 41 units

CHEM 210 General Chemistry I	5.0
CHEM 220 General Chemistry II	5.0
CIS 250 Programming Methods I: C++ and CIS 251 Open Computer Lab I: C++	3.0 1.0
MATH 251 Analytical Geometry and Calculus I	5.0
MATH 252 Analytical Geometry and Calculus II	5.0
MATH 253 Analytical Geometry and Calculus III	5.0
MATH 275 Ordinary Differential Equations	3.0
PHYS 250 Physics with Calculus I	4.0
PHYS 260 Physics with Calculus II	4.0
PHYS 270 Physics with Calculus III	4.0

Total Units of Core Courses (required): 41.0

Associate Degree Unit Requirements Total 41.0 *

TRANSFER PROGRAM - CHEMISTRY, PHYSICS, PHYSICAL SCIENCES

Cañada College offers lower division coursework required for transfer in Chemistry, Physics, and Physical Sciences. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

PHYSICAL THERAPY

Transfer Program

TRANSFER PROGRAM - PHYSICAL THERAPY

Cañada College offers lower division coursework required for transfer in Physical Therapy. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

POLITICAL SCIENCE

Associate in Arts

Transfer Program

Political Science is the study of the theory and practice of government and politics and of learning to be an effective citizen. It explores the process through which a group selects its leaders, determines its policies, reinforces its values, and allocates advantages and disadvantages to its members.

ASSOCIATE IN ARTS - POLITICAL SCIENCE

Core and Selective Requirements

Complete Core Courses, 9 units

	UNITS
PLSC 130 International Relations	3
PLSC 150 Introduction to Political Theory	3
PLSC 210 American Politics	3

Selective courses: choose a minimum of 9 units from the following list:

	UNITS
PLSC 310 California State & Local Government	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
Foreign Language	5-10
HIST 201 United States History I <i>or HIST 202 United States History II</i>	3
HIST 100 History of Western Civilization I <i>or HIST 101 History of Western Civilization II</i>	3
MATH 200 Elementary Probability & Statistics	4
Associate Degree Unit Requirements Total	18.0 *

TRANSFER PROGRAM - POLITICAL SCIENCE

Cañada College offers lower division coursework required for transfer in Political Science. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

PSYCHOLOGY

Associate in Arts Transfer Program

Psychology, a natural and social science, is concerned with the study of human and animal behavior. While the individual is usually the focal point, as in personality, developmental, clinical and counseling areas, the influence of groups on the individual is also considered. A broad discipline, psychology involves both pure science and practical application to everyday living.

ASSOCIATE IN ARTS - PSYCHOLOGY

Core and Selective Requirements

Complete Core Courses, 7 units

	UNITS
PSYC 100 General Psychology	3
MATH 200 Elementary Probability & Statistics	4

Selective courses: choose a minimum of 11 units from the following list:

	UNITS
PSYC 106 Psychology of Ethnic Minority Groups	3
PSYC 110 Marriage and Relationship Choices	3
PSYC 200 Developmental Psychology	3
PSYC 201 Child Development	3
PSYC 202 Adolescent Behavior	3
PSYC 300 Social Psychology	3
PSYC 340 Psychology of Human Sexuality	3
PSYC 410 Abnormal Psychology	3
BIOL 110 Principles of Biology	4

Associate Degree Unit Requirements Total 18.0 *

TRANSFER PROGRAM - PSYCHOLOGY

Cañada College offers lower division coursework required for transfer in Psychology. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

RADIOLOGIC TECHNOLOGY

Associate in Science

(X-RAY TECHNOLOGY)

The Radiologic Technology program offers a comprehensive curriculum leading to an AS degree and qualifications for employment in medical facilities throughout the country. Students participate in classroom instruction and clinical education in our affiliated hospitals. Program graduates must take the licensure examination required by the State of California and the certification examination given by the American Registry of Radiologic Technologists.

Prospective students must complete a separate application to the program (available in November for the following Fall entrance) in addition to the regular college application. An information meeting is held annually in November for prospective students. For more information, please call the Science and Technology Division office at 306-3291.

ASSOCIATE IN SCIENCE - RADIOLOGIC TECHNOLOGY

Core and Selective Requirements

Complete Core Courses, 61 units

	UNITS
RADT 408 Perspectives in Radiology	.5
PHYS 405 Applied Radiographic Physics	3
RADT 400 Orientation to Radiologic Technology	2
RADT 410 Radiographic Positioning	4
RADT 420 Radiographic Positioning II	3.5
RADT 415 Radiation Protection and Biology	3
RADT 430 Principles of Radiographic Film Production	3.5
RADT 435 Imaging Equipment and Quality Control	1.5
RADT 440 Advanced Imaging Modalities & Specialized Procedures	4
RADT 441 Sectional Anatomy	1.5
RADT 442 Radiographic Pathology	1.5
RADT 450 Registry Review	1.5
RADT 418, 428, 438, 448, 458, 468 Clinical Education I-VI (total approx. 2,000 hours)	31.5

Associate Degree Unit Requirements Total 61.0 *

A grade of C or better is necessary for progression in the sequence.

Students must obtain current certification in CPR for health care providers.

** and General Education coursework to meet Associate Degree requirements. Recommended that the majority of the General Education requirements for the AS degree be completed prior to entry to the program.*

Contact: Rafael Rivera, Phone: 306-3283

Email: canradtech@smccd.edu

Web: www.canadacollege.edu/science/radtech

REAL ESTATE

Certificate of Completion

CERTIFICATE OF COMPLETION - REAL ESTATE SALESPERSON

Core and Selective Requirements

Complete Core Courses, 9 units

	UNITS
R.E. 100 Real Estate Principles	3
R.E. 110 Real Estate Practice	3
R.E. 141 Real Estate Appraisal	3
Certificate Unit Requirements Total	9.0 +

+ meet Certificate Program requirements listed on page 41.

SOCIAL SCIENCES

Associate in Arts - International Studies

Transfer Program - Social Science

Social science is an integrated curriculum involving the disciplines of anthropology, economics, geography, history, philosophy, political science, psychology, social science and sociology.

ASSOCIATE IN ARTS DEGREE - INTERNATIONAL STUDIES

Core and Selective Requirements

Complete Core Courses, 24.5 units

	UNITS
ANTH 110 Cultural Anthropology	3
CBOT 430 Computer Applications, Part I	1.5
ECON 100 Principles of Macro Economics	3
GEOG 150 World Regional Geography	3
HIST 101 History of Western Civilization II	3
<i>or HIST 202 United States History II</i>	
<i>or HIST 422 Modern Latin America</i>	
<i>or HIST 451 Far Eastern Civilization & Heritage I</i>	
PLSC 130 International Relations	3
PSYC 106 Psychology of Ethnic Minority Groups	3
<i>or SOCI 141 Understanding Diverse Racial/Ethnic Cultures</i>	
Languages: Two semesters of one language	5
Associate Degree Unit Requirements Total	24.5 *

TRANSFER PROGRAM - SOCIAL SCIENCE

Cañada College offers lower division coursework required for transfer in Social Science. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree*

SOCIOLOGY

Associate in Arts Transfer Program

Both a scientific and humanistic discipline, sociology is concerned with the study of systems of social action and their interrelations. It attempts to discover the factors that determine social organization and behavior and promotes an understanding of the social world from personal problems to public issues.

ASSOCIATE IN ARTS - SOCIOLOGY

Core and Selective Requirements

Complete Core Courses, 10 units

	UNITS
SOCI 100 Introduction to Sociology	3
SOCI 105 Social Problems	3
MATH 200 Elementary Probability & Statistics	4

Selective courses: choose a minimum of 8 units from the following list:

	UNITS
SOCI 141 Understanding Diverse Racial/Ethnic Cultures	3
ANTH 110 Cultural Anthropology	3
ANTH 125 Physical Anthropology	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
Foreign Language	5-10
PSYC 100 General Psychology	3
PSYC 110 Marriage & Relationship Choices	3

Associate Degree Unit Requirements Total **18.0 ***

TRANSFER PROGRAM - SOCIOLOGY

Cañada College offers lower division coursework required for transfer in Social Science. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

SPANISH

Associate in Arts Transfer Program

The Foreign Languages Department brings to students the riches of diverse cultures of the world. Here students can participate, either vicariously through the literature they are now able to read, or directly with their new-found linguistic abilities, in heritages the totality of which comprise all mankind. Students master basic grammar and gain proficiency in understanding, speaking, reading, and writing the target language.

ASSOCIATE IN ARTS - SPANISH

Core and Selective Requirements

Complete Core Courses, choose 8-9 units from the following list:

* For native speakers of Spanish (8 units):

	UNITS
SPAN 150 Spanish for Heritage Speakers I	4.0
SPAN 152 Spanish for Heritage Speakers II	4.0

* For non-native speakers of Spanish (8-9 units):

SPAN 130 Intermediate Spanish	5.0
or SPAN 131 Intermediate Spanish I	3.0
SPAN 132 Intermediate Spanish II	3.0
and SPAN 140 Advanced Intermediate Spanish	3.0

Selective courses: choose a minimum of 12.0 units from the following list:

	UNITS
SPAN 110 Elementary Spanish	5.0
or SPAN 111 Elementary Spanish I	3.0
and SPAN 112 Elementary Spanish II	3.0
SPAN 120 Advanced Elementary Spanish	5.0
or SPAN 121 Advanced Elementary Spanish I	3.0
and SPAN 122 Advanced Elementary Spanish II	3.0
SPAN 150 Spanish for Heritage Speakers I	4.0
SPAN 152 Spanish for Heritage Speakers II	4.0
SPAN 161 Readings in Spanish Literature I	3.0
SPAN 162 Readings in Spanish Literature II	3.0
ENGL200 Introduction to Linguistics: A Survey of Language	3.0

Note: no more than 3 LIT units

LIT.370 Readings in Literature of the Latino in the United States	3.0
LIT.371 Mexican-American Literature	3.0
LIT.372 Myth and Folklore of La Raza	3.0
LIT.373 Latin American Literature in Translation	3.0

Note: no more than 3 HIST units

HIST 246 History of Latinos in the U.S.	3.0
HIST 421 History of the Americas	3.0
HIST 422 Modern Latin America	3.0
SOSC 250 Mexican-American Culture	3.0
Any language other than ENGL or SPAN	3.0-10.0

Associate Degree Unit Requirements Total **21.0-26.0 ***

TRANSFER PROGRAM - SPANISH

Cañada College offers lower division coursework required for transfer with a major in Spanish. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

SPEECH**Associate in Arts****Transfer Program**

The Speech Department at Cañada College offers classes in the two primary forms of verbal communication: public address (rhetoric), and conversation or private discourse (dialectic). The department also offers a course in Oral Interpretation of Literature (reading aloud from the printed page), which, though concerned with neither rhetoric nor dialectic, is closely related to both of those forms of verbal address. The instructors in this department emphasize the necessity of strong and logically structured argument, at the same time recognizing the primacy of humane and empathetic elements in human communication. Speech classes at Cañada College are designed to encourage students to understand and use the traditional elements and devices of good speaking, while learning how to apply that understanding to their personal speaking styles.

ASSOCIATE IN ARTS - SPEECH**Core and Selective Requirements****Complete Core Courses, 6 units**

	UNITS
SPCH 100 Fundamentals of Speech Communication	3
SPCH 120 Interpersonal Communication	3

Selective courses: choose a minimum of 12 units from the following list:

	UNITS
SPCH 111 Oral Interpretation I	3
SPCH 130 Voice and Articulation	3
SPCH 140 Group Discussion	3
ART 314 Introduction to Computer Graphics	3
BUS 103 Introduction to Business Information Systems	3
PSYC 100 General Psychology	3
ENGL 100 Reading and Composition	3
ENGL 110 Composition and Literature	3
SOCI 100 Introduction to Sociology	3
ANTH 110 Cultural Anthropology	3

Associate Degree Unit Requirements Total **18.0 ***

TRANSFER PROGRAM - SPEECH

Cañada College offers lower division coursework required for transfer in Speech. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

** and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

THEATER ARTS

Associate in Arts **18 units***
Transfer Program **Available**

**and required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.*

The Cañada College Theater Arts Department presents a program rich in depth and diversity. Students pursuing a career in the theatre arts or simply desiring creative expression, will find in the drama department, a wide array of pertinent courses, as well as an extensive opportunity to put their developing knowledge and talent to work in performing on stage, in technical work, or in both. Because the department usually produces five plays during the year, a student has the opportunity to work with at least two different directors and in plays ranging from comedy to heavily dramatic works.

The Cañada Theater Arts Department can point with satisfaction to a significant and steadily growing number of its former students who go on to professional stage, movie, and television work performing, producing, and technical and also to the many gratified amateurs.

It should be emphasized that the Theater Arts program is designed for students of all levels of experience—beginning, intermediate, and advanced.

ASSOCIATE IN ARTS - THEATER ARTS

Core and Selective Requirements

Complete Core Courses, 15 units

	UNITS
DRAM 101 History of Theatre I	3
DRAM 102 History of Theatre II (CSM)	3
DRAM 140 Introduction to the Theatre	3
DRAM 200 Theory and Practice of Acting	3
DRAM 201 Advanced Acting I	3

Selective Courses, choose a minimum of 3 units from the following list

	UNITS
DRAM 202/203 Advanced Acting II/III	3/3
DRAM 208/209/210/211 Acting Practicum I/II/III/IV	4-8
DRAM 220 Acting for the Camera	3
DRAM 300 Play Rehearsal/Performance	1
DRAM 305 Technical Production	1

TRANSFER PROGRAM - THEATER ARTS

Cañada College offers lower division coursework required for transfer in Drama. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.



UNIVERSITY STUDIES

The Associate in Arts in University Studies Degree is designed for students planning to transfer to the California State University system, the University of California system, or an independent college or university. The degree has three options and enables students to complete necessary transfer admissions requirements in combination with Cañada College Associate Degree requirements.

Completion of either option below does not guarantee admission to specific university campuses and majors.

The options below must include Associate Degree requirements in residency, scholarship, basic competency, ethnic studies, and physical education. Review the options and general outline below and work with a College Counselor to ensure completion of degree requirements.

Option 1:

California State University (CSU)

To meet the requirements for Option 1, students must complete a total of 60 semester units and those units must be CSU transferable and include either "A" or "B" below.

A: CSU GE Pattern, 39 units:

Area A-9 units (A1, A2, A3)

Area B-9 units (B1, B2, Lab B3, B4)

Area C-9 units (C1, C2, C1 or C2)

Area D-9 units

Area E-3 units (E1, E2-limit 1 unit)

Or,

B: IGETC for CSU, 37 units (Require a grade of "C" or better.)

Area 1-9 units (1A, 1B, 1C)

Area 2-3 units

Area 3-9 units (3A, 3B, 3A or 3B)

Area 4-9 units

Area 5-7 units (5A, 5B)

Option 2:

University of California (UC)

To meet the requirements for Option 2, students must complete a total of 60 UC transferable units with at least a 2.4 GPA that includes either "A" or "B" below. All courses taken to satisfy "A" or "B" require a grade of C or better.

A: IGETC for UC, 34 to 44 units:

Area 1-6 units (1A, 1B)

Area 2-3 units

Area 3-9 units (3A, 3B, 3A or 3B)

Area 4-9 units

Area 5-7 units (5A, 5B)

Area 6-Language other than English.
(High school coursework may be applied.)

Or,

B: Basic UC Admissions, 21 units

- Two courses in English Comp
- One course in Mathematics
- Four courses chosen from at least two of the following areas - Arts and Humanities, Social and Behavioral Science, and Physical and Biological Science.

All courses must be UC transferable

Option 3:

Independent College or University

To meet the requirements for Option 3, students must complete a total of 60 semester units and those units must be UC or CSU transferable and include either "A" or "B" below.

A: IGETC

Complete the IGETC version - UC or CSU - that is accepted by the Independent College or University

Or,

B: Independent College or University GE Pattern:

Complete a minimum of 21 units applicable to the GE pattern of the transfer institution.

See your College Counselor

Additional Associate Degree requirements require completion of:

2 units of PE

Ethnic Studies

Computer Literacy