

Faculty Mentors

With small classes, faculty have the opportunity to mentor students and to provide learning experiences that form a strong foundation in mathematics and the natural sciences.

Seamless Transfer

Cayuga has transfer agreements with:

Buffalo State College
Cazenovia College
Cornell University
Dowling College
Le Moyne College
St. John Fisher College
SUNY Binghamton
SUNY Buffalo
SUNY Cortland
SUNY Empire State College
SUNY ESF
SUNY Oswego
SUNY Polytech

Why Cayuga?

Cayuga is **Affordable**: As a SUNY institution, Cayuga is one of the most affordable institutions in the country.

Cayuga's **Flexible Schedule** meets your needs. Degrees and courses are available in Auburn, Fulton, and online, and staggered start dates enable students to take classes that fit their schedule.

Cayuga is **Student Oriented**: Faculty members help students learn by emphasizing active, collaborative student learning techniques.

Cayuga has **Small Classes**: Low average class size ensures individualized attention and an ideal learning environment.

Cayuga has **Great Professors**: Our faculty hold advanced degrees from universities across the country, and bring a wealth of experience from the world to the classroom.

Cayuga **Prepares Students** for what's next. Over 90% of graduates said Cayuga met their educational needs, and 99% would recommend Cayuga to others.

Liberal Arts and Sciences: MATHEMATICS AND SCIENCE AS



NATURAL SCIENCES AT CAYUGA

Cayuga's Liberal Arts and Sciences: Mathematics and Science program can prepare you for advanced study in biology, chemistry, geology, physics, environmental science, or medicine. Students receive a well-rounded background in liberal arts and a solid foundation in mathematics and science that prepares them to continue their studies at a transfer institution. Articulation agreements with area colleges ensure that our courses are current and meet transfer requirements.

Applied Learning

Cayuga's courses integrate hands-on and inquiry-based teaching methods to provide the wide range of skills required in today's science fields. Science class projects include biodiversity sampling, disease mapping in mammals, geologic sampling, lake and stream water analysis, and nature trail development. Field trips are part of many courses to augment in-class and laboratory experiences. Students have the ability to gain unique experiences through our science clubs and course-based student internships.

Career Possibilities

- Actuary
- Biologist
- Chemist
- Materials Scientist
- Math and Science College Professor
- Operations Research Analyst
- Environmental Scientist
- Statistician
- Economist
- Researcher
- Engineer
- Pharmacists
- Doctor
- Dentist
- Surgeon

Chemists and Materials Scientists

2021 Median Salary

\$79,760/yr

United States Department of Labor

<https://www.bls.gov/ooh/life-physical-and-social-science/chemists-and-materials-scientists.htm>



Contact us for more information

ADMISSIONS OFFICE

admissions@cayuga-cc.edu
www.cayuga-cc.edu/admissions
1-866-598-8883

AUBURN CAMPUS

197 Franklin Street
Auburn NY 13021

FULTON CAMPUS

11 River Glen Drive
Fulton NY 13069



cayuga-cc.edu



Liberal Arts and Sciences

Mathematics and Science

AS



This program is designed for students who plan to transfer and continue their studies in fields such as medicine, dentistry, pharmacology, biology, chemistry, geology, and environmental science.

ENGLISH AND HUMANITIES

12 credit hours, to include:

- ENGL 101-102 (6 credits)
- ENGL 201-206, 221, 222, 270 (3 credits)
- Humanities: 3 credits from art, foreign languages, music, philosophy, or theatre arts

BEHAVIORAL AND SOCIAL SCIENCES

9 credit hours, to include:

- At least 3 credit hours in ANTH 101, ECON 201, ECON 202, PSY 101 or SOC 101, GEOG 101, GIS 110, GIS 111, GIS 205 or PSCI 102
- 3 credit hours in HIST 101, HIST 102, HIST 103, HIST 104, or HIST 105
- Behavioral and Social Sciences: ASL, anthropology, Behavioral and Social Sciences, economics, geography, history, political science, psychology, sociology, GIS 110, GIS 111, GIS 205



NATURAL SCIENCES AND MATHEMATICS

28 credit hours (minimum), to include:

- Biology, chemistry, electronics, geology, mathematics, physics
- 8 credit hours natural sciences sequence: BIOL 103-104, BIOL 225-226, BIOL 203-204, BIOL 103 and 226, CHEM 103-104, CHEM 207-208, GEOL 110-111, PHYS 103-104, PHYS 200-201
- 6-8 credit hours mathematics
 - 3-4 credits MATH 106, 108, 201-204, 212 or 214
 - 3-4 credits MATH 108, 201, 202, 204, or 214
- 12-14 credit hours science/mathematics electives

Note: Students who complete a mathematics sequence course with a C or better cannot take a lower sequence course for credit.

LIBERAL ARTS ELECTIVES

6 credit hours

ELECTIVES

6 credit hours

No more than six credit hours total in MUSI 100 and physical education courses carrying fewer than 3 credits may be applied toward the A.S. degree.

OTHER WORLD CIVILIZATIONS / THE ARTS

Three credits from either Other World Civilizations or The Arts.

See College Catalog for a listing of acceptable course choices. If any of the listed courses have been taken to meet another requirement, then the "Other World Civilizations or The Arts" requirement has been met.

HEALTH AND PHYSICAL EDUCATION ELECTIVES

1 credit hour in Health or Physical Education

Concentrations

Gain specialized skills to prepare for career or transfer.

Biology Concentration

Designed for students who wish to study biochemistry, pharmacy, pre-medicine, or other health profession areas.

Required Courses–Year 1

Courses	Credit Hours
BIOL 103 and BIOL 104 or BIOL 226	8
or	
BIOL 225-226 Botany and Zoology	8
and	
CHEM 103-104 General Chemistry I–II	8

Required Cognate and Biology Courses–Years 1 or 2

Choose 4 courses from following:

Courses	Credit Hours
BIOL 203 Human Anatomy and Physiology I	4
BIOL 204 Human Anatomy and Physiology II	4
BIOL 211 Genetics	4
BIOL 214 Cell Biology	4
BIOL 216 General Microbiology	4
BIOL 223 General Ecology	4
CHEM 207 Organic Chemistry I	4
CHEM 208 Organic Chemistry II	4
PHYS 103 General Physics I	4
PHYS 104 General Physics II	4
MATH 108 Calculus I	4
MATH 201 Calculus II	4
MATH 214 Statistics	3

Optional Recommended Courses:

BIOL 207 Human Genetics	3
BIOL 209 Nutrition	3
BIOL 208 Introduction to Environmental Science	3
BIOL 218 Emerging Infectious Diseases and Bioterrorism	3
BIOL 219 Introduction to Cancer Biology	3

Chemistry Concentration

Designed for students who plan to transfer to four-year programs and continue their studies in chemistry or related areas such as biochemistry, pharmacy, pre-medicine, or medical technology programs.

Required Courses

Courses	Credit Hours
CHEM 103-104 General Chemistry I–II	8
CHEM 207-208 Organic Chemistry I–II	8
MATH 108, 201 Calculus I–II	8

Recommended Courses: PHYS 103-104

Geographic Information Systems (GIS) Concentration

Designed for students who plan to transfer to a four-year program and continue their studies in geographic information systems or related areas such as resources management, geography, urban planning, or environmental science. It is strongly recommended that students consult with their chosen school as early as possible to determine the appropriate course selection for optimum transferability.

Required Courses

Courses	Credit Hours
CHEM 103-104 General Chemistry I–II	8
GEOG 101 World Geography	3
BIOL 208 Introduction to Environmental Science	3
GIS 111 Introduction to GIS	3
GIS 121 Remote Sensing	3
GIS 122 Spatial Modeling with Raster GIS	3

Select two of the following Biology courses: 8

BIOL 103 General Biology I	
BIOL 104 General Biology II	
BIOL 225 Botany	
BIOL 226 Zoology	

Recommended Courses

BIOL 103-226	8
GEOL 110 Physical Geology	4
MATH 108 Calculus I	4
MATH 214 Statistics	3

Geology Concentration

Designed for students who plan to transfer and continue their studies in geology or related areas such as agronomy, cartography, land use management, teaching, or environmental sciences and engineering.

Required Courses

Courses	Credit Hours
GEOL 101 Earth Science*	3
GEOL 110 Physical Geology	4
GEOL 111 Historical Geology	4
CHEM 103-104 General Chemistry I–II	8
MATH 108 Calculus I	4

* GEOL 101 is a prerequisite for students who have not taken high school earth science, and is strongly recommended for any student planning to enter the teaching profession.

Recommended Courses

BIOL 225-226 Botany and Zoology	
or	
BIOL 103-104 General Biology I & II	8
PHYS 103-104 General Physics I & II	8
MATH 214 Statistics	3