LIBERAL ARTS AND SCIENCES: MATHEMATICS AND SCIENCE A.S.
2-3 Biology
   Chemistry
   Geology

COMPUTER TECHNOLOGIES
4 Information Technology A.S.
5 Computer Hardware/Software Design A.A.S.
6 Computer Information Systems A.A.S.
7 Computer Science A.S.

GEOGRAPHIC INFORMATION SYSTEMS (GIS) A.S.
8-9

MECHANICAL TECHNOLOGY A.A.S.
10-11

MECHANICAL TECHNOLOGY A.A.S. AND PLASTICS TECHNOLOGY
12 Computer Aided Design (CAD)
12 Facilities Design
13 Mechatronics
13 Precision Machining
13 Advanced Manufacturing Certificate
13 Plastics Manufacturing Certificate

ELECTRICAL TECHNOLOGY A.A.S.
14-15

LIBERAL ARTS AND SCIENCES: MATHEMATICS A.S.
16
The School of Science, Technology, Engineering and Math provides an experiential approach to learning that promotes creative problem-solving and is based on learning through inquiry. With small classes and hands-on labs, students and faculty explore how things work, and study innovative ways to make them work better.

Explore the natural world and the physical sciences, learn about the evolving technology that drives business and industry, and appreciate the mathematics that describes it all.

Cayuga can be your start to a rewarding career, applying critical thinking STEM skills in a wide range of fields.
Liberal Arts and Sciences: Mathematics and Science A.S.

This program prepares you for advanced study in biology, chemistry, geology, physics, environmental science, or medicine. Students receive a well-rounded background in liberal arts as well as a solid foundation in mathematics and science, and are prepared to continue their studies at a transfer institution. Articulation agreements with area colleges ensure that our courses are current and meet transfer requirements.

Concentrations

Concentrations are available in Biology, Chemistry and Geology.

Targeted courses allow you to transfer successfully to a four year degree program.

Biology

For students who plan to continue their studies in Biological Sciences, Biochemistry, Pre-Medicine, Environmental Studies, Botany or Zoology.

Courses Include

- Principles of Biology
- Botany
- Zoology
- Cell and Molecular Biology
- Human Anatomy and Physiology
- Ecology
- Microbiology
- General Chemistry
Experiential 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. Field trips are part of many courses to augment in-class and laboratory experiences.

Chemistry
For students who plan to continue their studies in Chemistry, Biochemistry, Pre-Medicine, or Pharmacy
Courses Include
• General Chemistry
• Organic Chemistry

Geology
For students who plan to continue their studies in Geology, Agronomy, Cartography, Land Use Management, or Environmental Sciences
Courses Include
• Earth Science
• Physical Geology
• Historical Geology
• General Chemistry

Chemistry
For students who plan to continue their studies in Chemistry, Biochemistry, Pre-Medicine, or Pharmacy
Courses Include
• General Chemistry
• Organic Chemistry
COMPUTER TECHNOLOGIES

At Cayuga, students can discover how we communicate, work, play, and learn through the use of computer technology. Cayuga has a range of programs for students who want to work with computers. While each program has a different focus and area of application, all programs provide a strong foundation in computer programming skills.

Information Technology A.S.

Information Technology focuses on designing and managing technologies for user productivity. IT careers are in high demand and include specialties in game design, web design and administration, network administration, and information security. This program allows students to build a foundation for transfer into four-year information technology or other technology-related programs.

Courses Include
- Java
- Webpage Design
- Systems Analysis and Design
- Introduction to Unix/Linux
- Database Management Systems
- Programming in Visual Basic
- Computer Graphics
- Video Game Design
- Digital Animation

Career Possibilities
- Games Designer
- Computer Security Specialist
- Database Administrator
- Network Administrator
- Network & Data Communications Analyst
- Systems Administrator
- Web Developer
- Web Administrator
- IT Consultant
- Security Engineer
Computer Hardware/Software Design A.A.S.

This career program offers exciting and rewarding opportunities in the rapidly developing computer hardware/software industry, combining the electronics of hardware design with the problem-solving and logic skills of software design.

Courses Include
- Networking
- Programming in Visual Basic
- Java
- Fundamentals of Microcomputers
- Programming in C/C++
- Electronics
- Digital Computers

Career Possibilities
- Computer Technician
- Hardware Designer
- Software Designer
- Network Technician
- Network Administrator
- Programmer
Computer Information Systems A.A.S.

This career program provides a foundation in the concepts and principles of computer information systems. Students develop and design software solutions and procedures that help businesses function efficiently. The emphasis is on applied learning through laboratory practice, using the latest hardware and software.

Career Possibilities

- Programmer
- Web Designer/Developer
- Webmaster
- Database Administrator
- Network Administrator
- Network Support Specialist
- Systems Analyst

Courses Include

- Networking
- Webpage Design
- Database Management Systems
- Programming in Visual Basic
- Java
- Systems Analysis and Design
- Introduction to Unix/Linux
- Internet Security
Computer Science A.S.

This program focuses on the math, technical, and programming knowledge that is the foundation for a career in computer science. Students gain a broad and varied background in programming as well as the soft skills needed for effective technical communication.

Courses Include

- Calculus
- Linear Algebra
- Discrete Math
- Systems Analysis and Design
- Programming in Visual Basic
- Programming in C/C++
- Java

Career Possibilities

- Software Engineer
- Software Developer
- Computer Applications Engineer
- Computer Hardware Engineer
- Computer Programmer
- Games Programmer
Geographic Information Systems (GIS) A.S.

Combine your interest in science and technology by learning specialized computer software that takes images drawn from satellites, GPS waypoints, and aerial photography, and making interactive maps for decision makers from all types of career areas.

Why Cayuga?

- The only community college with a comprehensive GIS degree program
- Opportunities to work with technology and professionals at the forefront of the field
- Hands-on training in GIS technology, global positioning systems, and remote sensing
- A state-of-the-art geographic information technology lab with a complete suite of ESRI software, ERDAS Imagine, IDRISI, and latest GPS receivers

Transfer

Cayuga has transfer agreements with

SUNY Cortland
SUNY College of Environmental Science and Forestry
Career Possibilities

- Agriculture
- Business and Marketing
- Military and Defense Industry
- Environmental Management
- Environmental Protection
- Urban and Regional Planning
- Health and Human Services
- Law Enforcement and Criminal Justice
- Resources Management
- Intelligence and Public Safety
- Surveying and Engineering
- Transportation and Utilities
- Mapping and Mining

Our Graduates are Employed

- NAVTEQ*
- National Grid
- City and County Planning
- Real Estate Property and Tax Services
- State Congressional Office

* a major provider of electronic navigation maps
Mechanical Technology A.A.S.

Mechanical Technology is a hands-on curriculum that provides students with skills in the software and production tools and equipment of the mechanical design profession. Students are exposed to the current technology used in industry and prepared for exciting careers in the field of mechanical design and technology.

State-of-the-Art

Computer-Aided Design Laboratory using the industry standard software Solid Works (3D) solid modeling and Auto Cad (2D) Industrial CAD and REVIT software

Yushin Robot

CNC programming and industrial machining standards with CNC machine lathe and mill, HAAS Controllers, and HAAS VM-2 Vertical Milling Machine
Career Possibilities

CAD Designer
Machine Designer
Tool Designer
Architectural/Mechanical Drafter
Quality Assurance Technician
Engineering Technician
CNC Machining Programmer

Our Graduates are Employed

Welch Allyn
ITT Goulds
Huhtamaki Packaging
Beardsley Design Associates
Anaren Microwave
Young and Franklin
Currier Plastics
Tessy Plastics
Mechanical Technology A.A.S.
Plastics Technology Option

Cayuga’s Plastics Technology Option prepares students for work as mold technicians in the plastics and polymer conversion industries.

Concentrations

Concentrations are available in
Computer Aided Design (CAD)
Facilities Design
Mechatronics and
Precision Machining.

Computer Aided Design (CAD)

This concentration prepares students for work as CAD technicians, CAD designers and mechanical designers.
Facilities Design
This concentration prepares students for work as CAD designers in an architectural or engineering consulting firm, as building mechanical system designers, and facilities designers.

Mechatronics
This concentration prepares students for work as electro-mechanical technicians and automation technicians.

Precision Machining
This concentration prepares students for work as mechanical technicians, CNC machinists, and CNC programmers.

1 Year Certificate Programs
• Advanced Manufacturing
• Plastics Manufacturing
Electrical Technology: Electronics A.A.S.

Cayuga’s training approach focuses on the hands-on use of industrial instrumentation to learn the operation and acquire the troubleshooting skills for sophisticated electronic systems.

Within our continually changing technological world, electronics technicians find rewarding work in the development and maintenance of electronic components, products, and systems.

Why Cayuga?

- Small classes and individual attention
- State-of-the-art equipment and instrumentation
- Experimental and simulation laboratory environments
- Extra support from student tutors
- Open lab hours
- Affiliation with the New York State Engineering and Technology Association (NYSETA), providing a link to other two- and four-year institutions in New York
- Opportunities for plant tours through the Technology Club
State-of-the-Art

Students acquire a fundamental knowledge in:

- DC and AC Circuitry
- Digital Circuits
- Microprocessor Systems
- Programmable Logic Controllers
- High-Frequency Systems

Our simulation laboratory environments offer hands-on experience with:

- Multimeters
- Oscilloscopes
- Logic Pulsers & Probes
- Logic Analyzers
- Spectrum Analyzers
- Network Analyzers

Career Possibilities

Industrial Control Technician
Electronic Test and Repair Technician
Engineering Technical Assistant
Calibration and Test Technician
Field Service Technician
Electronic Assembler
Liberal Arts and Sciences: Mathematics A.S.

Mathematicians are always in high demand and a bachelor’s or master’s degree in mathematics is one of the most universally marketable degrees.

The Mathematics A.S. degree program at Cayuga is primarily designed for students planning to continue their studies in a four year degree program in either theoretical or applied mathematics.

Career Possibilities

A broad-based background in mathematics is excellent preparation for continued study in computer science, statistics, chemistry, physics, engineering, and other fields that use computer modeling.

Courses Include

Calculus
Linear Algebra
Differential Equations
Discrete Math
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: A low 17:1 student-to-faculty ratio 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.