

Sample Four-Year Degree Plan  
**B.S. MEDICAL TECHNOLOGY**



The State University of New York at Fredonia is committed to doing our part to provide each student a clear path to graduation. This four-year degree plan is a sample map for fulfilling requirements in the major, the College Core Curriculum (CCC), and other supporting courses. The pathway that you take to your degree may differ somewhat from this illustration, depending on where you start and the detours and side trips you may take along the way. If you are committed to completing your degree in four years, we encourage you to consider signing up for the Fredonia in 4 program. For complete information about this degree program, please consult the university catalog at [fredonia.smartcatalogiq.com](http://fredonia.smartcatalogiq.com)

FIRST YEAR					
Fall Semester			Spring Semester		
Course		Credits	Course		Credits
BIOL 131	Introductory Ecology and Evolution	3	BIOL 133	Introductory Cell and Molecular Biology	3
BIOL 132	Introductory Ecology and Evolution Lab	1	BIOL 134	Introductory Cell and Molecular Biology Lab	1
BIOL 100	Studying For Success	1	CHEM 116	General Chemistry Lecture II	3
CHEM 115	General Chemistry Lecture I	3	CHEM 126	General Chemistry Lecture Lab II	1
CHEM 125	General Chemistry Lab I	1	STAT 250	Statistics for Scientist	3
CCC	Art	3	CCC	Foreign Language	3
CCC	Basic Written Communication	3			
		<b>TOTAL</b>			<b>14</b>
		<b>15</b>			<b>14</b>

**Biology**  
 221 Science Center  
**The State University of New York at Fredonia**  
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SECOND YEAR					
Fall Semester			Spring Semester		
Course		Credits	Course		Credits
BIOL 237	Genetics	3	BIOL 246	Human Anatomy & Physiology II & Lab	4
BIOL 238	Genetics Lab	1	BIOL 256	Introduction to Clinical Sciences	1
BIOL 245	Human Anatomy & Physiology I & Lab	4	CHEM 216	Organic Chemistry Lecture II	3
CHEM 214	Organic Chemistry I	3	CHEM 226	Organic Chemistry Lab II	1
CHEM 225	Organic Chemistry Lab I	1	CCC	Social Science	3
CCC	Humanities	3	CCC	American History	3
		<b>TOTAL</b>			<b>15</b>
		<b>15</b>			<b>15</b>

The B.S. Medical Technology degree is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and the American Medical Association Council on Health Education. Recent program graduates have obtained employment as clinical laboratory scientists in hospital laboratories, biomedical research facilities, forensic laboratories and the pharmaceutical industry; and as sales representatives for pharmaceutical, medical instrumentation and computer corporations. The percentage of Fredonia Medical Technology students passing the Board of Registry Examination on the first attempt has been 97 percent over the past 10 years, compared to a national passage rate of only 76 percent.

THIRD YEAR					
Fall Semester			Spring Semester		
Course		Credits	Course		Credits
BIOL 333	Biochemistry	3	BIOL 338	Microbiology Lecture and Lab	3
BIOL 334	Biochemistry Lab	1	BIOL 344	Parasitology	1
BIOL 431	Senior Seminar	1	BIOL 453	Basic Hematology	1
BIOL 461	Immunology & Serology Lecture & Lab	3	PHYS 122	Physics II	3
PHYS 121	Physics I	3	PHYS 124	Physics Lab II	1
PHYS 123	Physics Lab I	1	CCC	Other World Civilizations	3
CCC	Western Civilization	3	CCC	Social Science	3
				Elective	1
		<b>TOTAL</b>			<b>16</b>
		<b>15</b>			<b>16</b>

FOURTH YEAR					
Fall Semester			Spring Semester		
Course		Credits	Course		Credits
MEDT 490	Clinical Internship	15	MEDT 491	Clinical Internship	15
		<b>TOTAL</b>			<b>15</b>
		<b>15</b>			<b>15</b>
2016-2017				<b>GRAND TOTAL</b>	<b>120</b>

[fredonia.edu](http://fredonia.edu)

## Why Study the Natural Sciences at Fredonia?

The Natural Sciences at Fredonia encompass state of the art programs in pure and applied sciences that prepare you well for graduate school and professional careers. Each program gives you the opportunity to engage in meaningful research in collaboration with the faculty.

### Choose from a variety of disciplines

- Mathematical Sciences offer programs in pure and applied mathematics, as well as certification programs in mathematics education.
- Computer and Information Sciences have multiple programs including those in software development, systems management and cooperative computer engineering.
- Biology houses programs in Biology, Medical Technology, Molecular Genetics, Exercise Science and Biology Adolescence Education.
- The Department of Chemistry and Biochemistry offers programs approved by the premier accreditor, The American Chemical Society, as well as certification program in Adolescence Chemistry Education.



- Programs in the Physics Department include several concentrations in Physics (including Physics Education), as well as being the home for most Cooperative Engineering majors.
- Programs in Geology and Environmental Sciences cover all aspects of earth and planetary sciences as well as the interdisciplinary programs in environmental science and GIS.

### Thrive in state-of-the-art Science Center

- Our new \$60 million Science Center features \$5 million in cutting-edge instruments and equipment. It boasts an innovative design that maximizes student learning, facilitates student-faculty collaboration, and creates spontaneous interactions across disciplines.
- Research labs and classrooms incorporate glass walls, natural light and open spaces, allowing visitors to easily observe students and faculty learning together.

### Receive an exceptional value

- Fredonia alumni in graduate and medical schools consistently say they were better prepared than their peers at larger schools because of rigorous Fredonia courses, smaller class sizes, undergraduate research opportunities and genuine relationships with faculty mentors.
- Internships are conducted in hospital labs, physician offices, health departments, environmental agencies, and energy, biomedical and pharmaceutical companies, as well as hospitals, pharmacies, veterinary clinics and zoos.
- Health Professions Advising Program assists students pursuing careers in medicine, dentistry, optometry and veterinary medicine.
- Students perform field research in Lake Erie, its tributaries and Fredonia's 200-acre nature sanctuary.

- Numerous need- and merit-based scholarships and fellowships are available for academically talented students, including some of the biggest awards available on campus.

### Exceptional faculty

- Faculty conduct research and are recognized consistently for their efforts on local, regional, national and international levels.
- Their interests range from studying the animal behavior of bats and praying mantises, among other species, quantifying the potential natural gas held with the Marcellus Shale region, and improving the water quality of the Great Lakes.



- One professor's research spurred a national law signed by President Obama. It bans the use of plastic microbeads in beauty and exfoliating products — because a Fredonian showed they contaminate water systems.

### Alumni successes

- Many recent graduates are enrolled in medical, dental, veterinary and optometry schools.
- Alumni have gone on to become clinical scientists, high school teachers, biomedical research scientists, physicians, pharmacists, environmental scientists, venture capitalists, veterinarians, lab directors, lawyers and forensic scientists, among other professions.
- Fredonians are among the faculty at University of California at Berkeley, Penn State University, Indiana University of Pennsylvania, The Scripps Research Institute and other institutions.