

College of Science and Mathematics

Dean and Professor of Chemistry Michael McGinnis
The College of Science and Mathematics is comprised of the Departments of Biology; Chemistry and Biochemistry; Earth and Environmental Science; Health & Human Performance; Mathematics; and Physics. Each department has its own chair.

Mission

The College of Science and Mathematics provides high-quality academic degree programs in mathematics and in the physical, biological and life sciences for our majors. We also provide support courses in these areas to meet the needs of the University. To this end, the College provides the knowledge, experience and guidance in mathematics and the sciences in lecture, laboratory, and clinical settings to prepare students to pursue advanced study, successful careers, and to become responsible citizens in a democratic society.

Accreditation

For a complete listing, refer to the Accreditation section of this catalog.

Department of Biology

Department Chair: Associate Professor Megan Doczi

Mission:

Biology and Neuroscience curricula offer students the opportunity to study the structure and function of living systems, from the complexity of cellular components to whole organism dynamics to ecosystem design.

Majors Offered:

The Department of Biology offers the Bachelor of Science degree with majors in:

- Biology (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/biology/>)
- Biology--Pre-Medical/Pre-Dental track
- Neuroscience (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/neuro/>)

Minors Offered:

- Biology (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/biology/#minortext>)
- Neuroscience (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/neuro/#minortext>)

Department of Chemistry & Biochemistry

Department Chair: Associate Professor Ethan Guth

Our graduates are highly desired by industry and government employers for their laboratory skills, and are well qualified for admission to graduate and professional schools. The courses and labs required for these degrees assure that graduates are proficient in the fundamental principles of chemistry and prepared to apply these principles to specialized areas such as environmental, forensic, medicinal, and pharmaceutical chemistry.

Attainment of the Bachelor of Science in Chemistry requires at least 122 credits as does the Bachelor of Science in Biochemistry. Course work should conform to the following tables since many advanced chemistry courses have other courses as a prerequisite. All courses listed on the curriculum map are required, although the sequence varies somewhat for courses offered in alternate years. It is difficult for chemistry and biochemistry majors to schedule the required courses unless they follow the

outline recommended paying special attention to the alternate year courses.

The progress of all students majoring in chemistry and biochemistry will be evaluated by the department at the end of the first and second years. Students receiving an unsatisfactory evaluation will be requested to change majors.

Mission:

The Department of Chemistry & Biochemistry provides students with an introduction to the scientific method, the correct and effective presentation of data, and develops students' critical thinking skills by allowing the analysis and the interpretation of experimental data.

Majors Offered:

- Chemistry (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/chemistryandbiochemistry/#text>)
- Biochemistry (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/chemistryandbiochemistry/#text>)

Minors Offered:

- Chemistry (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/chemistryandbiochemistry/#minorstext>)

Department of Earth & Environmental Sciences

Department Chair: Associate Professor Christopher Koteas

The Department of Earth and Environmental Sciences takes full advantage of Norwich University's location in the middle of the Green Mountain State, a location ideally situated for field studies of the natural environment. Our programs are guided by a philosophy that emphasizes "learning by doing," leading to degree programs designed with a focus on experiential learning. Our curricula are presented by faculty who are respected teachers as well as active researchers, most notably in New England, Europe, and the western U.S.

Mission:

- To provide a broad background in the physical sciences, with a strong focus on geology and environmental sciences and its pivotal role in understanding our environment.
- To prepare our graduates to enter graduate school for continuing education, or move into the workforce prepared to contribute as leaders addressing the many local and global issues facing society.

Majors Offered:

- Geology (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/geology/>)
- Environmental Science (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/geologyandenvironmentalscience/>)

Minors Offered:

- Geology (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/geology/#minortext>)

Department of Health & Human Performance

Department Chair: Professor Amy Welch. Assistant Professor Gregory Jancaitis, ATC; Assistant Professor Janine Osterman, ATC; Assistant Professor Rachele Pojednic; Senior Lecturer Kylie Blodgett; Lecturers Angie Carpenter-Henderson, Scott Maxham.

Mission

The Department of Health & Human Performance prepares students for various healthcare professions through classroom and practical application of knowledge acquired.

Majors Offered

- Exercise Science- Fitness Professional/ Strength & Conditioning Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/exercisesci/#strengthandconditioningfitnessprofessionalconcentrationtext>)
- Exercise Science-Pre-Physical Therapy Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/exercisesci/#healthsciencepreprofessionalconcentrationtext>)
- Health Sciences-Pre-Professional Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/sportsmedicine/#majortext>)
- Health Sciences-Accelerated Master's in Athletic Training Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/sportsmedicine/#healthsciencesmajoracceleratedmasterstext>)
- Physical Education (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/physicaleducation/>)-Teacher Education Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/physicaleducation/#pemajorteconcontext>)
- Physical Education-Recreation Management Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/physicaleducation/#physicaleducationmajorrecreationmanagementconcontext>)

Minors Offered

- Health (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/health-minor/>)
- Coaching (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/coaching/>)

Graduate Program Offered

- Master of Athletic Training (Fall 2022) (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/athletictrainingandsportsmedicine/#curriculumtext>)

Accreditation

- The Athletic Training program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).
- The Physical Education Teacher Education preparation program is accredited by the Vermont Agency of Education Results-Oriented Program Approval (ROPA).

Department of Mathematics

Department Chair: Professor Robert Podiack

Mission:

- Prepare mathematics majors for graduate work in mathematics or careers in computer science,

engineering, industry, business, actuary science, or teaching;

- Support the curricula in all disciplines, and
- Supply the students with the mathematics courses necessary to qualify for teacher licensure.

Majors Offered:

- Mathematics (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/mathematics/#curriculumtext>)
- Mathematics-Actuarial Science Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/mathematics/#mathmajortext>)
- Mathematics-Education Concentration (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/mathematics/#mathmajoreducationconcontext>)

Department of Physics

Department Chair: Associate Professor Robert Knapik

Norwich University offers the Bachelor of Science in Physics (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/physics/>) to students desiring a strong education in the fundamentals of physics. Designed to provide a comprehensive undergraduate education, the program's curriculum includes astronomy, classical physics and quantum physics. Norwich students thrive with experiential learning. The Department therefore emphasizes laboratory work; all physics majors join in one of the on-going research endeavors of the physics faculty. A successful physics major will be prepared for advanced study in a graduate school program or for employment in a research facility of industry or government.

Mission:

- The Department of Physics delivers an excellent academic program for physics majors, as well as high-quality support courses for programs requiring basic physics. Physics faculty provide students with lectures and laboratories that develop the analytical skills required of students for their majors, for successful careers, and for responsible citizenship.

Major Offered:

- Physics (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/physics/>)

Minor Offered:

- Physics (<http://catalog.norwich.edu/residentialprogramscatalog/collegeofscienceandmathematics/physics/#minorstext>)