School of Science

Jeffrey M. Osborn, Dean; Patricia Van Hise, Assistant Dean

The School of Science provides a high quality and challenging education for exceptional undergraduate students, offering studies in the sciences as well as interdisciplinary fields. Students interact with outstanding teacher-scholars as instructors, advisors, and mentors, and have access to modern, well-equipped facilities for hands-on experiences. Faculty members integrate comprehensive undergraduate research experiences into their scholarship, actively preparing students to meet future career or graduate school goals. An array of support programs is designed to provide any student with a desire to study in the School of Science the opportunity to succeed. The liberal arts setting of the College and the balance of theory and practice in the School prepare each student for lifelong learning and for contributing to the field and to society at large.

The School of Science is dedicated to providing students with an outstanding education in biology, chemistry, computer science, mathematics and statistics, and physics that emphasizes the excitement of scientific exploration and the importance of science to society. Through coursework, independent study, faculty-sponsored laboratory or field research, and internships, the School aims to foster a deep understanding of the concepts and processes of science. The School of Science is also dedicated to producing exemplary science and math teachers in collaboration with TCNJ's School of Education through elementary education programs and our secondary education programs in biology, chemistry, physics, and mathematics. One of the opportunities available to students pursuing a degree in the School of Science is to study abroad for a semester or a year. Any student interested in studying abroad should meet with his/her faculty advisor early in his/her college career. Students in the School of Science can expect to go on to rewarding careers in a wide variety of fields, including graduate study, professional schools, teaching, high-technology industry, public service, media, or any other area in which a strong science background is important.

The departments of the School of Science are located in adjacent buildings next to Lake Ceva: the Science Complex (chemistry, mathematics and statistics, and physics), the Biology Building (biology), and Holman Hall (computer science). The Science Complex and the Biology Building are newly constructed facilities, and they, along with Holman Hall, are equipped with modern tools of science and science education, including a planetarium, astronomical observatory, optics laboratory, nuclear magnetic resonance laboratory, spectroscopy and chromatography suite, molecular modeling suite, electron microscopy suite, molecular biology laboratory, greenhouse, Sun/Solaris computing laboratory, Intel/Linux computing laboratory, mathematics education laboratory, and numerous computer classrooms. Individual faculty laboratories are designed to allow intensive interaction among students and faculty in an undergraduate-focused research environment.

The School of Science offers a designated option for entering first-year students who are undecided about their choice of major but are leaning towards any of our science or mathematics fields. Students in this matriculated, pre-major program are designated "Open Option-Science." During the first year of study at the College, Open Option-Science students receive developmental advising through the dean's office, which facilitates both the self-exploration and education regarding career opportunities, necessary to enable the student to select an appropriate major. It is expected that students entering the College as Open Option-Science designees will have formally declared a major (either within the School of Science or in another school) by the end of their first year. Students cannot graduate with this designation, and early declaration of the appropriate major will facilitate timely graduation.

The School of Science Office is located in the Science Complex, room P105. The assistant dean is Patricia Van Hise, who can be reached at 609.771.3472. The secretary to the dean is Monica Zrada. You may contact the Office of the Dean at 609.771.2724.

Open Option – Science

Suggested First-Year Course Sequence for Open Option-Science

The suggested first-year sequence of study for Open Option-Science students is designed to assist in the exploration of majors, and therefore varies among students. Selection of all courses is made with academic advisement.

Fall

1) Must register for:
- SCI 099/Orientation to Science — 0 course unit
- FSP First Seminar — 1 course unit

2) Probably will register for at least one (depending upon major interests):
- MAT 127/Calculus A — 1 course unit
- CHE 201/General Chemistry I — 1 course unit

3) And might register for one (depending upon major interests):
- If Biology:
  BIO 185/Themes in Biology — 1 course unit
- If Computer Science:
  CSC 220/Computer Science I: Computational Problem Solving — 1 course unit
  or
  CSC 250/Accelerated Computer Science I and II
- If Mathematics or Statistics:
  MAT 200/Discrete Mathematics — 1 course unit
- If Physics or Chemistry:
  PHY 201/General Physics I — 1 course unit

4) Outside the School of Science: — 1 course unit
A liberal learning course from: Arts and Humanities (Literary, Visual, and Performing Arts or World View and Ways of Knowing); Social Sciences and History (Behavior, Social or Cultural Perspectives, or Social Change in Historical Perspective); or a second language

Total — 4 course units

Spring

Selection of courses for spring semester of the first-year is made with academic advisement. In general, the next course in the sequence for the possible major within the School of Science is suggested, with exploration of alternative majors continuing through selection of appropriate liberal learning courses.