STEM MAJORS

From Study to Skills

STEM is an acronym for the fields of Science, Technology, Engineering, and Mathematics. At Rutgers University- Camden, we offer several STEM majors including Biology, Chemistry, Computer Science, Mathematics, and Physics. However, many of our majors offer the opportunity to explore multiple STEM majors together and gain valuable experience for employment.

- The Biology major is appropriate for students interested in biological science, which includes research, pharmacy, agriculture, pre-medicine, and pre-dentistry.
- The Chemistry major has four options: the Traditional Chemistry Program, the Certificate Program, The Biochemistry Program, and the Chemistry- Business Program. These majors will prepare students for careers in chemistry, biochemistry, allied health, or non-laboratory aspects of the chemical industry.
- The Computer Science major offers a Bachelor of Science or a Bachelor of Arts program. The Bachelor of Science program is for students pursuing careers in science and engineering. The Bachelor of Arts program has a multi-disciplinary focus which includes the humanities, social sciences, and business.
- The Mathematics major has three programs: Pure Mathematics, Applied and Computational Mathematics, and Mathematics Education. Pure Mathematics is intended for students interested in traditional mathematics, Applied and Computational Mathematics is for students interested in a multi-disciplinary STEM approach, and Mathematics Education is for students interested in teaching.
- The Physics major offers a traditional Physics track or a Physics degree with an emphasis in Computer Science.

Skills and Abilities

Research Skills- Students will learn to define problems, formulate hypotheses, design and execute experimental protocol, record observations, collect data, interpret results, utilize statistical tests to predict outcomes, and practice laboratory techniques and scientific collaboration.

Investigative Skills- Students will use the scientific method, statistical analysis, reasoning, operating systems, and identify problems, inspect and handle biological specimens, monitor experiments, and practice manual dexterity.

Mathematical Skills- Students will learn the language of mathematics, computational skills, logical reasoning, complex problem solving, mathematical skills and modeling, pattern recognition, advanced quantitative skills, ability to perceive patterns and structures, the ability to generate solutions, and develop logical reasoning.

Analytical Thinking- Students will develop critical thinking skills, enhance abstract and formal reasoning, apply mathematics to the physical world, perform advanced statistical analysis, interpret and organize information, analyze data qualitatively and quantitatively, consider problems with a broad perspective, apply theoretical approaches, develop models and theories, and learn computer literacy.

Communication Skills- Students will report results, create logical arguments, practice technical writing skills, convey complex information, read and evaluate technical information, present alternative explanations, interpret and write scientific articles, and contribute to teams.

Internships

In the Past, Rutgers—Camden STEM students have interned with the following employers:

American Water
Campbell Soup
Cherry Hill West High School Athletic Department
The Children's Hospital of Philadelphia
Christiana Care Health System
Cooper University Hospital Emergency Department
Coriell Institute for Medical Research
Deborah Heart and Lung Center
The Forensic Science Center
Fox Chase Cancer Center

Jefferson University Hospital
Johns Hopkins Cancer Center
Lockheed Martin
The Philadelphia Science Festival
The Philadelphia Zoo
Rutgers Camden Biology Department
Thomas Jefferson University
Subaru of North America
Target
USDA Agricultural Research Service
US Department of Energy

What Careers Are Available For STEM Majors

The following are samples of first jobs of Rutgers-Camden STEM majors:

Analyst, Bank of America
Assistant Project Manager, Miles Technologies
Associate Scientist, Colgate Palmolive
Associate, Bayada Home Health Care
Behavior Support Associate, Bancroft
Chemist, US Food and Drug Administration
Computer Scientist, CECOM
Computer Systems Analyst, Delaware Investments
Crime Scene Analyst, CRA Inc.
Data Analyst, Showboat Hotel Casino
Data processing & Programmer, NJ Department of the Treasury
Environmental Specialist, NJ Department of Environmental Protection
Helicopter Production Engineer, Avionics
High School Biology Teacher, Cherry Hill High School
Infrastructure Specialist, The Boeing Company

Microbiology Laboratory Prep Technician, EMSL Analytical Inc.
Operations Scientist, Merck & Co
Patent Examiner, US Patent & Trademark Office
Process Engineer, Kulite Semiconductor
Production Associate, Media Radar Inc.
Programmer, Bell Atlantic
Project Engineer, Lowe Paper Company
Quality Assurance Specialist, Defense Contract
Quality Control Lab Technician, Mafco Worldwide Corporation
Quality Engineer, Frigidaire Corporation
Research Engineer, Universal Display Corporation
Software Developer, Sauper Associates
Software Engineer, L-3 Communications
Sr. Computer Operator, Brown Brothers Hariman
Systems Engineer, Compulink Management Center

Graduate School Options

Rutgers- Camden STEM majors have earned Master's and Doctorate level degrees in all fields of science and medicine. These degrees include the Allied Health Professions, Biology, Business, Chemistry, Computer Science, Education, Engineering, Forensic Science, Information Science, Law, Medicine, and Physics.

Resources

Consider joining the American Medical Students Association, the Biology Club, the Chemistry Club, or Student Health Advocates.

Consider joining STEM Scholars or Q-STEP.

Assist a faculty member with their research.

Contact the Career Center:
Room 006 Campus Center, Lower Level
326 Penn Street
Camden, NJ 08102
856.225.6046
careercenter@camden.rutgers.edu
http://cc.camden.rutgers.edu