



New Paltz
STATE UNIVERSITY OF NEW YORK

SCHOOL OF
**SCIENCE &
ENGINEERING**

BA2
THORPE.0119

BA1S
THORPE.0119

PICTURE YOURSELF HERE

CHIEF DATA SCIENTIST, DEVELOPMENT
ENGINEER, REGIONAL INNOVATION
SPECIALIST, MARINE BIOLOGIST,
MECHANICAL ENGINEER, PROFESSOR
OF MATHEMATICS . . .

DO YOU LIKE SOPHISTICATED EQUIPMENT AND ENJOY MAKING
IT WORK TO OPTIMAL CAPACITY? DO YOU LIKE RESEARCH AND
WANT TO WORK CLOSELY WITH ENTHUSIASTIC
AND EXPERT FACULTY?

New Paltz Baja SAE



The Baja team at SUNY New Paltz is a student-lead club comprised of engineering students who are tasked with designing and building a single-seat, all-terrain sporting vehicle to race both regionally and nationally. Designing the various components of the vehicle is integrated into the Senior Design project experience.

IN THE SCIENCES AND ENGINEERING, NEW KNOWLEDGE MUST BE APPLIED,

and new problems solved. Our strong ties with business and industry, coupled with opportunities for research, internships and cooperative education, provide our students with unparalleled experiences.

Student and instructor, Dr. Preeti Dhar, go over calculations for an experiment to be conducted in the Biochemistry I Lab.

52%

The School of Science & Engineering has experienced a growth of 52% in the last five years.



With a remarkable natural environment close to campus, students have access to a range of diverse environments for field study. Many faculty members conduct research locally, strengthening ties between the region's educational and environmental institutions.



The Computer Science Department has two Distinguished SUNY Research Professors on staff (one of whom is also an IEEE Fellow), a high honor for faculty which indicates a stellar reputation for scholarship.



Many opportunities for faculty-mentored projects and research.

REAL WORLD LEARNING
EXPERIENCE COMBINED WITH
A SOLID FOUNDATION IN THE
LIBERAL ARTS ENABLES OUR
STUDENTS TO GROW INTELLECTUALLY AND MEET
THE CHALLENGE OF CONTINUALLY EVOLVING FIELDS.



How do you study animals that migrate several hundreds of miles over the course of the year? Some of our students are trained to **capture and tag migratory birds** as part of a long-term project to address these questions. We even enlist local bird enthusiasts to help collect data. When you're on campus, keep an eye peeled for birds with a small tag on their legs and then let us know what you observe on Instagram @newpaltzornithology.



**THE ACADEMIC YEAR
UNDERGRADUATE
RESEARCH EXPERIENCE
(AYURE) PROGRAM
PROVIDES FUNDS
FOR RESEARCH
AND SUPPLIES
TO STUDENTS INTERESTED IN
DOING THEIR OWN RESEARCH.**

This is just one of a number of ways the school of science & engineering supports its students, and stands as an example of our commitment to **partnering students with faculty** to work on cutting-edge research projects outside of the classroom.

The **Annual Engineering Design Expo** provides students the opportunity to showcase their creativity and research.

THE SCHOOL OF SCIENCE & ENGINEERING

PRIDES ITSELF IN OFFERING
OPPORTUNITIES FOR
HANDS-ON UNDERGRADUATE
RESEARCH, SUPPORTED BY

the kinds of modern research facilities found at large universities. It does so while preserving the high teaching standards typical of a small, liberal arts college. Each program description in this book provides examples of the wide variety of career paths, and graduate and professional programs, chosen by our students in recent years.

DEPARTMENTS AND PROGRAMS / The School of Science & Engineering

Our math, science, and engineering programs are demanding. We maintain high standards in order to provide you with the best opportunities when you graduate. We do so in a supportive environment that gives you the help that you need to succeed.

www.newpaltz.edu/sse

MAJORS

Astronomy
Biology
Biochemistry
Chemistry
Computer Science
Environmental
Geochemical Science
Computer Engineering
Electrical Engineering
Geology
Mathematics
Mechanical Engineering
Physics

ACCREDITATION

American Chemical Society (ACS)
Engineering Accreditation
Commission of ABET
abet.org



CONTACT

The School of Science & Engineering
State University of New York at New Paltz
1 Hawk Drive
New Paltz, NY 12561-2443
p: (845) 257-3728
f: (845) 257-3730

There are four basic components of an undergraduate degree in the School of Science and Engineering: first, a strong grounding in core math and science subjects that forms the basis for a lifetime of learning in science and engineering fields; second, a focused education in the technical aspects of your field; third, a focus on the liberal arts that provides the communication skills, understanding of people and society, and global awareness needed to succeed in our increasingly complicated and interconnected world; and lastly, the many opportunities to apply your knowledge and skills on real-world projects.

BIOCHEMISTRY

www.newpaltz.edu/biochemistry

A degree in biochemistry can lead to:

- Bachelors-level positions at pharmaceutical, chemical, or biotechnology firms
- Bachelors-level positions in laboratories, research facilities, and private industry
- Dental, medical, optometry, veterinary or pharmacy school
- Law school
- Graduate school in Biochemistry

Recent Undergraduate Research Projects:

- DNA bar coding
- Nuclear receptor-ligand interaction
- Isolation and characterization of a novel furanocoumarin from *Heracleum maximum* and its antimicrobial potential
- Isolation of insecticidal compounds from ethanolic bark extract of *Terminalia arjuna*
- Electron transfer in laccase catalysis
- Engineering laccase scaffolds into artificial blood

What do our graduates do?

- Attend medical school (Georgetown, St. George's University, SUNY Upstate, University of Iowa), veterinary school (Colorado State Univ.)
- Research assistants (Rutgers, Univ. of Mass., Amherst)
- Technicians (Estee Lauder, Regeneron, Siemens)
- Continue on to attend graduate school

BIOLOGY

www.newpaltz.edu/biology

Major Tracks:

- Biology
- Cellular Biology
- Environmental Biology
- Integrative Biology
- Organismal Biology



- Preparation for employment in industry, teaching, research, and for graduate, medical, dental, and other allied health fields
- Many opportunities for faculty mentored undergraduate research and presentations
- Faculty research interests include: development, cancer, molecular signaling, environmental conservation, neurophysiology, animal behavior
- Modern, research-quality instrumentation that undergraduate students use in courses and research

Recent Undergraduate Research Projects:

- Rock snot, a nuisance algae in Catskills streams
- Effects of xenoestrogens on regenerating planaria
- Investigating compounds that affect the human estrogen receptor
- Neuroendocrine regulation of nutrient utilization in the house fly
- Microbial ecology in coral reef live rock
- Identifying protein interactions in yeast
- Cytotoxic effect of ruthenium compounds on cancer cells
- Electrophysiological response of crabs to *Aplysia's* defensive ink
- Fungicidal effects of arjuna tree extracts
- Effects of fire on the ecophysiology of dominant forest tree species
- Impacts of urbanization on songbird behavioral ecology

What do our graduates do?:

- Work for chemical or biotechnology companies (Regeneron, Plexxikon, Novartis, Global Foundries, Albany Molecular Research) doing research, quality control, or science writing
- University research at: Regeneron, Discovery Labs, Cell Gene, NYU
- Attend medical school at: Temple, Stony Brook, Einstein, NYU, Tulane,

SUNY Upstate, University of Vermont, NY College of Osteopathic Medicine, Lake Erie College of Osteopathic Medicine

- Attend veterinary school at: Tufts, University of Missouri, Ohio State
- Attend other graduate allied health programs at: Long Island University, Albany College, Boston University, NYU, SUNY Optometry
- Attend graduate school/post-doctoral training at: Northern Arizona University, University of Nevada, Tufts, Brandeis, George Washington, UC San Diego, UC Davis, University of Florence, UT Austin, Case Western, Boston University
- Teach high school at school districts throughout the Hudson Valley and Long Island

CHEMISTRY

newpaltz.edu/chemistry

Major Tracks:

ACS Certified Chemistry/Biochemistry emphasis/Chemistry/Adolescence Education-Chemistry

- Excellent employment potential in industry, teaching, research, and government
- American Chemical Society (ACS) accredited curriculum
- Many opportunities for students interested in undergraduate research
- Excellent preparation for graduate and pre-health programs
- Modern, research-quality instrumentation is used in both research and undergraduate student courses
- Faculty with established research programs and expertise in many areas of chemistry including biochemistry, environmental, and nanoscience

What do our graduates do?

- Attend medical school such as Tufts University, U. Iowa Carver College of Medicine, NY Institute of Technology College of Osteopathic Med., Temple University Med. School, Rutgers Med. School or other schools that prepare students in health professions (U. Texas, San Antonio, Optometry).
- Pursue a Ph.D. in chemistry at schools such as Stanford University, UC San Diego, University of Rochester, University of Minnesota, Northwestern Univ., and Georgia Tech.
- Work in biotechnology (Regeneron, Plexxikon, Novartis), semiconductor industry (Global Foundries) or pharmaceuticals (Albany Molecular Research), sales in technology companies.
- Teach in high schools throughout the Hudson Valley.

Recent Undergraduate Research

Projects:

- Probing the surface chemistry of *P. putida* using atomic force microscopy
- Determination of acylhydrazone formation constants by UV spectroscopy
- Nicotine analogues: phenyl azetidines and azetidinones as insecticidal agents
- Interactions between oligonucleotides and quaternary ammonium salts
- Advanced photoresists for extreme ultraviolet lithography
- Paramagnetic NMR of the trinuclear copper cluster in multicopper oxidases

5-year BA Chemistry/MAT Chemistry in Adolescence Education

Five-Year Master's Plan is a pathway to earning two powerful credentials, a Bachelor of Arts degree and a Master of Arts in Teaching degree, in just five years.

Graduation from the Five-Year Master's Plan will empower you with options to

choose the career you find most fulfilling, whether that means becoming a science teacher, working as a chemist, or going for your PhD.

New York State requires students to maintain a 3.0 GPA and to take the GRE prior to entering the MAT program, and for completing all tests, workshops and procedures to merit teacher certification.

COMPUTER SCIENCE

newpaltz.edu/compsci

- Excellent teaching, renowned scholars, and collaborations with industry
- Computer science fundamentals that will make you a future self-learner
- Our classes are small and you will receive personal attention
- Every student has the opportunity to work with current technology in an environment that emphasizes project work and skills development
- The Town of New Paltz boasts several software development businesses where many of our students work as interns
- With a computer science degree from New Paltz, you will enter the job market at a starting salary among the highest for all college graduates

What do our graduates do? Software developers in the following areas:

- Currency trading
- Pharmaceutical research, web development
- iPhone and Android apps
- Business intelligence systems
- Network security systems
- Financial markets

Recent Undergraduate Research

Projects:

- Android phone drone control
- New York/New Jersey trails conference

- mapping app
- Database optimization of fantasy football website
- Robot control using neural impulse reader

DIVISION OF ENGINEERING PROGRAMS

newpaltz.edu/engineering/

Resnick Engineering Hall 114

SUNY New Paltz

1 Hawk Drive

New Paltz, NY 12561-2443

Phone: 845-257-3720

Fax: 845-257-3730

Email: enr@newpaltz.edu

Degrees Offered:

BS in Electrical Engineering

BS in Computer Engineering

BS in Mechanical Engineering

MS in Electrical Engineering

5-Year BS/MS Programs

Engineering at New Paltz

- An intimate engineering program by intent
- Small classes and labs resulting in personalized attention – from freshman through senior year
- Quality faculty interaction with students – advising, mentoring, collaborating
- Real world experience opportunities – internships and mentored research
- A well-rounded education based on a firm grasp of engineering fundamentals as well as a broad general education experience
- An innovative integration and collaboration between engineering and the fine arts, providing additional opportunities for creative work
- Cutting-edge technical facilities, including student use of New Paltz'

- state-of-the-art 3D printing lab
- Graduates who are well prepared for life after graduation – entering the nation's finest graduate programs and employed by top regional and national industrial firms
- Graduates of the program are placed at well-known national engineering firms and are admitted into highly ranked graduate schools. The program is highly regarded among local industry and graduate schools
- Senior design projects are comprehensive and of high quality. Typically seniors solve important problems which often come from industry.

What do our graduates do?

Electrical, computer, and mechanical engineers can be found in almost all sectors of the workforce, including research and development, product design, manufacturing operation, service, technical sales and marketing, consulting, patent law, medicine, and public police. The average starting salary for a graduate with a BS in these disciplines is \$65,000.

Recent Senior Design Projects

- 3D Ceramic Printer
- Mini Tesla Turbine
- Wearable Haptic Peripheral Audio Monitor
- Thermoelectric Cooling for Computer Servers
- Automated Keg Sanitizing Machine
- Pedaling Fatigue Testing of Racing Bicycle Frames
- Solar Powered Thermoelectric Cooler
- Biometric Pill Dispenser
- Automatic Whiteboard Eraser



ENVIRONMENTAL GEOCHEMICAL SCIENCE (EGS)

newpaltz.edu/envscience

- Unique interdisciplinary program, the only one of its kind offered in the State University of New York
- Focuses on the physical sciences with an emphasis on chemistry and geology and provides students with an outstanding alternative to more traditionally oriented environmental programs
- Prepares students to enter a wide range of occupations which require them to use analytical, instrumental, and quantitative techniques to address scientific questions concerning human impact on the environment
- All students participate in undergraduate research with a faculty member

What do our graduates do?

- Environmental consulting (Chazen Environmental, Tectonic Engineering, what else?)
- Government positions with DEC, DEP, USGS, and EPA
- Graduate programs (Colorado School of Mines, U VT, U Montana, add more)

Recent EGS Research Projects:

- Dendro-Archaeology and Dendro-Ecology using Eastern Hemlocks in the Rondout Valley
- Chemical Composition Analysis of Sediment from Long Pond.
- Soil Infiltration Study to Improve Water Quality and Conservation.
- Assessing the Cation Exchange Ability of Zeolites to treat leaded water.
- Cranberry Juice's anti-adhesion effects on E. coli.
- Examining the adhesion forces between Bdellovibrio bacteriovorus and their prey.

- Evidence for feedbacks that facilitate eutrophication in Lake Minnewaska.
- Hydraulic connectivity of the Kingston Caves through chemical analysis.
- Farmful" to the Environment: Farming practices and their impact on water ecosystems.
- Improving Paleoclimatic Chronology via A Sediment Core Analysis of Long Pond.
- Evolution of Water Quality: Natural vs Anthropogenic.
- The Effects of Fire on the Ecophysiology of Chestnut Oak and Red Maple Seedlings in Mohonk Preserve, NY.
- Antibacterial Nature and Topographic Analysis of Dragonfly, Damselfly, and Cicada Wings.
- Total Dissolved Solids in Ulster County Water.
- The effect of acidity on green algae concentration in the presence of Daphnia pulex.
- Regioselective electrophilic addition reactions to alkenes for the introductory organic chemistry laboratory.

EGS Major's Career Placements:

- Graduate Schools: Colorado School of Mines, Clarkson University, University College Dublin, Ireland, University of Vermont, SUNY Binghamton, SUNY ESF, Pace University, Bard College, University of Massachusetts Amherst, University of Montana, Idaho State University, Queens College, University of New Hampshire, University of California Santa Barbara.
- Environmental Consulting and Industry: Tectonic Engineering, Griggs-Lang Consulting Geologists, Dames and Moore Environmental Consulting, YEC Environmental Engineering, Chazen Environmental, EEC Consulting, Geotechnical Systems,

EOG Resources, Natural Currents Energy Services, C2G Environmental Consultants, Atlantic Testing Laboratories.

- Government and Agencies and NPOs: United States Geological Survey, United States Environmental Protection Agency, New York City Department of Environmental Protection, New York State Department of Agriculture and Markets, New York State Department of Environmental Conservation, Student Conservation Association.
- Academia and Teaching: SUNY New Paltz, Union College, University of Montana, Columbia University

GEOLOGY

newpaltz.edu/geology

Geology - General Geology (BA/BS)

Geology - Environmental Geoscience (BA/BS)

Adolescence Education - Earth Science (BA/BS)

Elementary Education – Earth Science (BS)

- The Geology BS program is registered with the New York State Education Department as a Professional Geologist licensure qualifying program
- Excellent employment potential in industry, teaching, research, government
- Salaries and demand for geologists continue to climb (geology.com, U.S. Bureau of Labor Statistics)
- Geology core curriculum excels at national standards
- Many opportunities for undergraduate research
- Excellent preparation for graduate school
- Modern facilities for undergraduate students to use in courses and research such as a scanning-electron microscope (Tescan

Vega 3 LMU) with energy dispersive X-ray detector and electron backscatter diffraction camera (Oxford).

Recent Undergraduate Research Projects:

- Climate effects on tree ring widths in the Champlain Valley
- Post-glacial history and modern atmospheric lead deposition from the sedimentary record in Louisa Pond, Esopus, N.Y.
- Experimental reconstruction of an early arthropod trackway from the Middle Devonian Catskill Delta
- The significance of fold interference patterns and fabric elements for the deformation history of the Taconic Allochthon
- Impact of Eco-friendly Agricultural Land Management on Water Quality
- Soil Infiltration study to Minimize the Impact of Irrigation on Water Quality to Maximize Water Conservation
- A record of post-glacial relative lake level fluctuation in the Seneca Lake basin
- Cephalopod diversity in the lower Devonian Schoharie formation: a unique opportunity for reassessment of diversity from glacial erratics
- An investigation of tree-ring response to extreme flood events along the Schoharie Creek, central New York
- Evidence from joint sets and shear zones in the Catskill Mountains for two orogenic events (2014 National Sigma Gamma Epsilon Best Student Poster Award)
- Assessing the impact of groundwater and heterogeneous glacial deposits on stream bank erosion in the Catskill Mountains New York City watershed
- Geochemical and microstructural investigations of mantle processes at mid-ocean ridges (2014-present)

- Structure of the oceanic lithosphere: modeling of seismic velocities from the Pacific (2019-)

What do our graduates do?

Graduate Schools:

Brown University, University of Cincinnati, University of Vermont, Boston University, SUNY Stony Brook, SUNY Binghamton, University of Utah, Pace University, Western Kentucky University, University of Georgia, University of Brussels, Texas A&M University, University of Illinois Urbana-Champaign, University of Illinois Carbondale, University of Connecticut Storrs, University of Massachusetts Amherst, University of Arkansas, University of Idaho, Idaho State University, University of Arizona, Northern Arizona University, City College of New York, Vermont Law School, American Museum of Natural History Graduate School, Kent State, University of Maine Orono, University of New Hampshire, University of California Santa Barbara, University of Oregon.

Environmental Consulting and Industry:

Griggs-Lang Consulting Geologists, Tectonic Engineering, Dames and Moore Environmental Consulting, YEC Environmental Engineering, Chazen Environmental, EEC Consulting, Washington Group International, Envirocare of Utah, Geotechnical Systems, EOG Resources, Natural Currents Energy Services, C2G Environmental Consultants, Halcyon Asset Management, Atlantic Testing Laboratories, Gayron de Bruin Surveying & Engineering, EWMA Environmental Consultants, Freeport-McMoRan, Exxon-Mobil

Government and Agencies and NPOs:

United States Geological Survey, United States Environmental Protection Agency, New York City Department of Environmental Protection, New York State Department of Transportation, New York State Department of Environmental Conservation, New York State Museum, New York State Department of Health, United States Military Academy West Point, Minnesota Geological Survey, Student Conservation Association

Academia and Teaching:

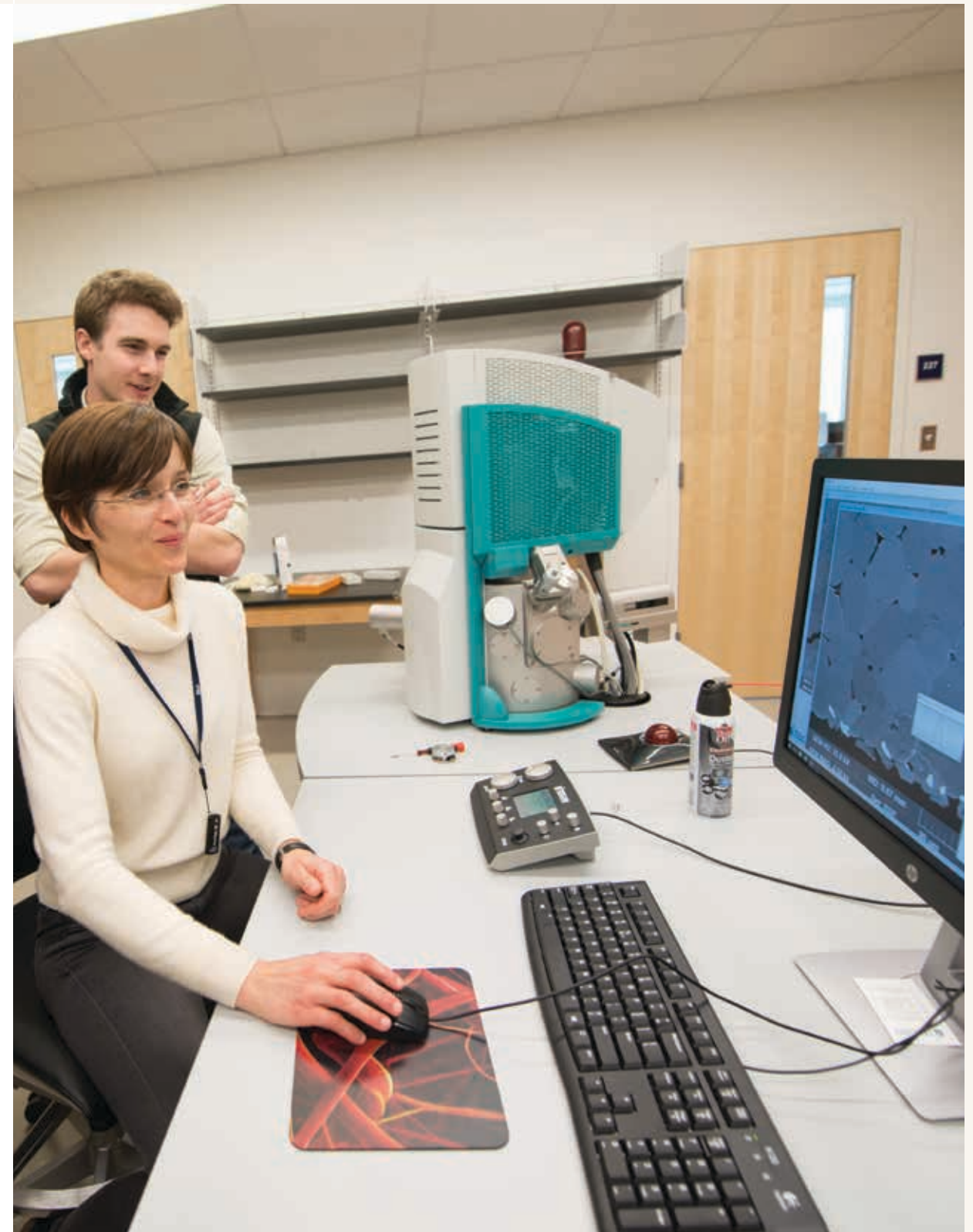
Vassar College, Union College, Florida Gulf Coast University, CUNY Baruch, Ulster County Community College, Kingston School District, Saugerties School District, Monroe-Woodbury School District, Newburgh School District, Hyde Park Central School District, Brewster Central School District, Valley Central School District, KIPP Gaston College Preparatory, ACLD Learning and Developmental Disabilities, Mad Science Education

5-year BA Geology/MAT Earth Science in Adolescence Education

Five-Year Master's Plan is a pathway to earning two powerful credentials, a Bachelor of Arts degree and a Master of Arts in Teaching degree, in just five years.

Graduation from the Five-Year Master's Plan will empower you with options to choose the career you find most fulfilling, whether that means becoming a science teacher, working as a geologist, or going for your PhD.

New York State requires students to maintain a 3.0 GPA and to take the GRE prior to entering the MAT program, and for completing all tests, workshops and procedures to merit teacher certification.



MATHEMATICS

newpaltz.edu/math

Major Tracks:

Mathematics

Adolescence Education Mathematics concentration (for high school teachers)

Elementary Education Mathematics concentration

Actuarial Sciences concentration

- Mathematics major accommodates both applied and theoretical interests
- Good preparation for law, medicine or business
- Small classes
- Many opportunities to work closely with faculty
- Preparation for work as insurance actuaries
- Good employment prospects for high school math teachers

Faculty research areas

- Mathematical physics
- Partial differential equations
- Asymptotic analysis
- Special functions
- Algebraic combinatorics
- Linear algebra
- Universal algebra
- Dynamical systems
- Lie groups

Recent Undergraduate Research Projects:

- Discrete equi-affine invariant variational problems in the plane
- Classifications of Darboux transformations for super KdV
- Complex dynamics for symbolic sequences of quadratic maps
- Analysis of a spark gap Tesla coil
- Exploring squares in different basis
- Using Bessel functions to understand the physics of the rainbow

- A short study of Mobius forms
- Invariance of Maxwell's equations under Lorentz transformations

What do our graduates do?

- Mathematics PhD programs at Wesleyan, CUNY, SUNY Stony Brook, Arizona State, University of Massachusetts, Amherst
- Faculty at Hofstra, Duquesne University, and other colleges
- Actuarial Analyst for a subsidiary of Safeco Insurance
- Teaching mathematics at many high schools in the region
- Biostatistician, Mount Sinai Preventive Medicine Department
- Financial Analyst, Wall Street
- President, Microsoft for South America

PHYSICS & ASTRONOMY

newpaltz.edu/physics

Physics (BA/BS)

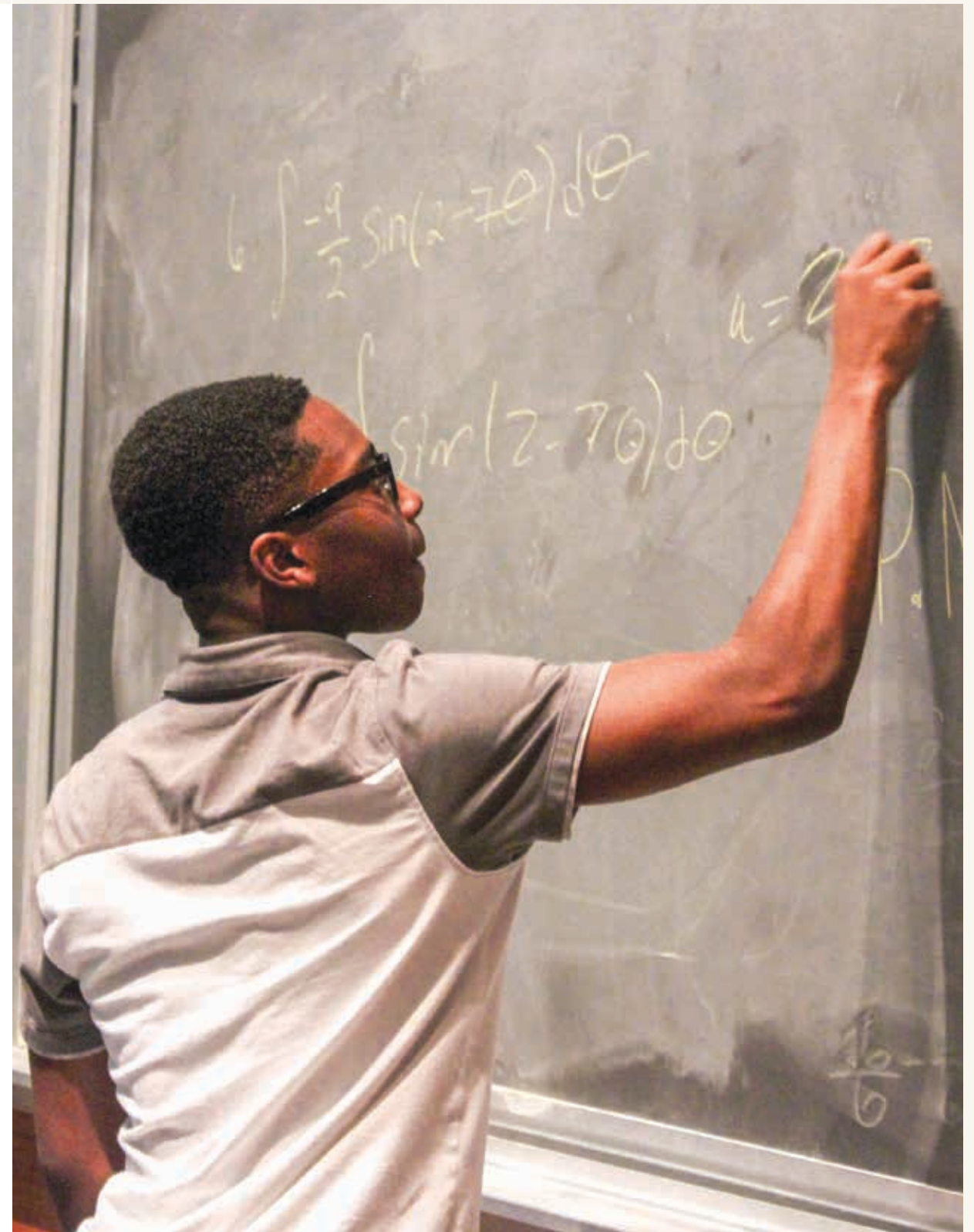
Adolescence Education – Physics (BA/BS)

Astronomy (BA)

- Small class size and individualized attention
- Excellent employment potential in industry, teaching, research, government
- Capstone experience – choose a senior project, senior paper or internship experience
- Access to 14-inch Celestron Schmidt reflecting telescope at the Smolen Observatory and state-of-the-art digital planetarium projector at the John R. Kirk Planetarium
- Research-quality equipment in the Optical Micromanipulation Laboratory

Recent Undergraduate Research Projects

- Endogenous biogenic electric currents in early planarian regeneration



- Effectiveness of computational methods in modeling ruthenium (II) iso-thiocyanate linkage isomers
- Micromanipulation of bacteria through the use of holographic optical tweezers
- A deviation from NFW dark matter halo projections in elliptical galaxies

What do our graduates do?

- Ph.D. programs in Physics at Stony Brook University, Syracuse University and University of Connecticut
- M.Sc. in Medical Physics from Columbia University
- MAT programs in physics and mathematics at Brooklyn College and Bard College
- High-school teachers in a number of districts in the region
- Employment with IBM, Indian Point Nuclear Facility, and the Army Corp of Engineers

THE MURIEL AND JACK SMOLEN OBSERVATORY

newpaltz.edu/observatory

Located on the New Paltz campus, the observatory has attracted interest from students as well as members of the local community. More than 150 people of all ages attended the Observatory's first recognition of "International Observe the Moon Night."

The Smolen Observatory houses a 14-inch Celestron Schmidt Reflecting telescope on a Paramount mount. The observatory also has two smaller 8-inch Dobsonian telescopes and a 10-inch telescope.

THE JOHN R. KIRK PLANETARIUM

newpaltz.edu/planetarium/about.html

The Planetarium is an indoor domed theater that seats 44. The projection system was upgraded in 2013 with the installation of a fish-eye lens projector that can display digital simulations of the sky and mimic celestial motions. It allows the audience to see and zoom in on images of stars, constellations, planets, galaxies and other deep sky objects. It also allows the audience to view the sky as seen from different planets and moons, and has many other features.

RESEARCH OPPORTUNITIES

Research experience improves students' problem-solving and communication skills, both of which are necessary in all types of jobs. Additionally, it has been shown that research experience results in greater independence and self-confidence.

Undergraduate research is education for a lifetime. Learning by doing allows students to apply classroom knowledge to unexplored problems. The research experience not only provides the excitement of generating new knowledge, but also prepares students for life-long independent learning.

A core value of the School of Science and Engineering at New Paltz is to work with students on research and projects outside the classroom. Our professors want to partner with you.

Students who are interested in a research project at New Paltz have a number of opportunities. A New Paltz student's first opportunity is often through the Academic Year Undergraduate Research Experience

(AYURE) program, which provides funds for research supplies. AYURE can be followed with a more intense experience: the Summer Undergraduate Research Experience (SURE). SURE students are paid to work full-time on a project during the summer months. **Students who participate in the SURE program are routinely accepted into prestigious graduate schools.**

AYURE and SURE students present the results of their research at a variety of venues. Each spring, the Student Research Symposium features the work of student research projects. For students who are ready to attend professional conferences, the Student Travel Award will cover the cost of travel.

From the initial idea to the public presentation of research results, SUNY New Paltz provides research students with opportunities and support.

AMP AND CSTEP COMMUNITY

The AC² (AMP & CSTEP Community) Program at SUNY New Paltz is a program of academic support and enrichment for students intending to major in the STEM (science, technology, engineering, mathematics) fields and certain majors leading to licensed professions. The goal of the program is to increase the number of economically disadvantaged and traditionally underrepresented students who earn degrees in these areas. Support for the AC² program is provided by SUNY New Paltz and SUNY LS-AMP (Louis Stokes Alliance for Minority Participation).

CSTEP (Collegiate Science and Technology Entry Program) is funded by the New York State Department of Education to increase the number of historically underrepresented and economically

disadvantaged undergraduate and graduate students who complete professional or pre-professional programs of study that lead to professional licensure and/or careers in mathematics, science, technology and health-related fields.

DEGREE...TO PROFESSION

A brief listing of professions available to a student with a Science/Engineering/Environment degree from SUNY New Paltz:

Actuary / Aerospace Tester / Architect / Astronomer / Astrophysicist / Atomic Physicist / Aviation Electronics Designer / Biomedical Equipment Designer / Biotechnologist / Cardiac Imaging Researcher / College Professor / Communication Systems Designer / Computer Game Designer / Computer Hardware Designer / Conservation Biologist / Data Security Manager / Dentist / Drug Sales Representative / Economic Geologist / Economist / Engineer / Engineering Geologist / Environmental Geologist / Financial Analyst / Fluids Physicist / Forensic Scientist / Geochemist / Geomorphologist / High School Science Teacher / Hydrogeologist / Intelligence Analyst / Laboratory Manager / Marine Biologist / Mathematician / Medical Physicist / Medical Products Designer / Meteorologist / Molecular Physicist / Museum Curator / Nanotechnology Researcher / Neuroscientist / Nuclear Physicist / Oceanographer / Paleontologist / Pediatrician / Pharmaceutical Researcher / Pharmacist / Physical Therapist / Physician / Planetary Geologist / Process Engineer / Quality Control Chemist / Radiological Laboratory Director / Robot Designer / Satellite Missions Analyst / Science Teacher

/ Science Writer / Scientific Photographer
/ Scientist / Software Designer / Structural
Geologist / Systems Analyst / Systems
Programmer / Technical Consultant /
Technical Illustrator / Test Engineer /
Volcanologist / Web Site Manager

SOME SCIENCE & ENGINEERING ALUMNI

- Chief Data Scientist/Director
of Analytics at US Environmental
Protection Agency (**Robin Thottungal**
'08, Computer Engineering)

- Regional Innovation Specialist, Hudson
Valley Technology Development Center,
Vice-President and Co-founder of
Plasmaco Inc. (**Everton Henriques** '78,
'83g, Chemistry)
- Assistant Professor of Mathematics at
Duquesne University (**Dr. Anna**
Haensch '07, Mathematics, 2007)
- Distinguished Research Staff
Member and Senior Manager, Watson
Labs, IBM (**Dr. Michael Hind** '85,
Computer Science/Mathematics)



AT A GLANCE

Character: Very selective, 4-year,
residential, regional, state assisted
university, liberal arts/professional
studies.

Location: New Paltz, NY, a small,
historic village (population of 14,000)
in New York State's Hudson Valley
region, midway between Albany and
New York City.

Faculty: 357 full-time and 301 part-
time with 82% of faculty holding a
Ph.D. or terminal degree.

Campus: 257 acres and 49 build-
ings.

Enrollment: 6,642 Undergraduates
(6,167 full-time and 549 part-time),
and 1,050 graduate students (484 full-
time and 566 part-time).

Academic Structure:

College of Liberal Arts and Sciences;
School of Business; School of Science
and Engineering; School of Education;
School of Fine and Performing Arts;
The Graduate School.

Average Class Size:

69% of our classes have fewer than 30
students; 92% of classes are fewer
than 40 students.

Social Mobility Index:

Listed in the top 3% on the 2019
Social Mobility Index
www.socialmobilityindex.org



**EXPERIENCE
NEW PALTZ VIDEO:**
[www.newpaltz.edu/
admissions](http://www.newpaltz.edu/admissions)



APPLYING:
[www.newpaltz.edu/
admissions](http://www.newpaltz.edu/admissions)

FINANCIAL AID:
[www.newpaltz.edu/
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VISITING:
www.newpaltz.edu/visitus

INTERACTIVE MAP:
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New Paltz

STATE UNIVERSITY OF NEW YORK



A DEGREE...AND AN EDUCATION®

The School of Science & Engineering
State University of New York at New Paltz
1 Hawk Drive
New Paltz, NY 12561-2442
845.257.2800
admissions@newpaltz.edu
www.newpaltz.edu
www.newpaltz.edu/sse
2020



The State University
of New York

