THE SCIENCES AT EASTERN
MEETING THE EVER-CHANGING NEEDS OF MATH AND SCIENCE EDUCATION

Eastern Connecticut State University has been a leader in math and science education since its founding in 1889, with a history of graduating many math and science teachers in Connecticut. Today, Eastern science and math graduates are nationally known research scientists, computer/video game designers, university professors, neurobiologists, doctors, engineers, conservation ecologists, molecular biologists, museum curators, forensic psychologists, veterinarians, ophthalmologists and economists.

They have won fellowships funded by the National Aeronautics and Space Administration (NASA) and the National Institute of Health, served as consultants to the National Academy of Sciences, and been named Early Career Scientists by the Howard Hughes Medical Institute, among other honors and accolades.

Where do those graduates teach those classes, lead those research studies and treat those patients? By an overwhelming majority, they work right here in Connecticut. Nearly nine in 10 graduates stay in the state after graduation to pursue careers, raise families and contribute to Connecticut’s quality of life and economic vitality.

Eastern’s focus on science careers and science education has been well placed. Statistics show that the United States lags behind other industrialized nations in preparing its students for careers in scientific occupations. Training the next generation of scientists is critical. Most, if not all, quality jobs in the global economy will require mathematical and scientific literacy to meet the ever-changing needs of the 21st century.

Someone who is science literate is able to interpret, criticize and evaluate. He/she knows how to research relevant data, examine evidence and draw appropriate conclusions. In short, the scientific worldview is a lens through which blurry facts about the world come into sharp focus. Without a science-literate workforce, America will lose its capacity to innovate in traditional fields such as medicine, mathematics and the environment, or explore frontier areas like systems biology, tissue...
engineering and nanotechnology. Laying the foundation for a science-literate workforce begins with developing outstanding K-12 teachers in science and mathematics. We need teachers who will work with young students to develop problem-solving and analytical skills, help them develop the ability to interpret and communicate information, and ultimately encourage them to master conceptual understanding.

With the construction of Eastern’s Science Building — which opened in September 2008 and has already made significant contributions to exposing students to new technologies, supporting undergraduate research and preparing tomorrow’s science and math teachers — the State of Connecticut has made a bold investment in its future. The exponential expansion of technical knowledge and an uncertain economy require our graduates to be highly adaptive, flexible and receptive to complex information and emerging technologies. Eastern is now at the forefront of preparing students to become leaders in an economy driven by globalization and technology, leaders who understand the value of harnessing, managing and applying scientific and technical knowledge to achieve a competitive advantage in their careers.
THE SCIENCE BUILDING: A MODEL FOR INTEGRATED LEARNING

For hundreds of years, scientists have toiled separately in dedicated classrooms and laboratories, conducting research and investigating solutions with little collaboration with their peers in other fields. Today, the practice of science is one in which discoveries are made and new ideas are advanced by fostering connections between disciplines and academic programs and bringing together teams of scientists and researchers with various perspectives. When it opened in fall 2008, Eastern’s Science Building immediately established its place on campus as an intellectual hub to cultivate interdisciplinary approaches to advanced science and research.

Interdisciplinary research and dialog is nurtured by close proximity. With the construction of the new Science Building, all mathematics and science instruction at Eastern — formerly spread across seven locations — is now housed within a single facility, modeling a new generation of research environments that emphasize collaborative learning. The Science Building offers public and shared spaces that provide the opportunity to practice this approach, with a design that fully supports student-student, student-faculty and faculty-faculty interactions. Interdisciplinary majors/minors to meet emerging careers, connecting the sciences with other disciplines (e.g. public health, cognitive neuroscience, physical therapy, etc.) are now even more accessible to all students, and are being piloted with the help of our self-designed Individualized Major program.
Spread across the Science Building’s 174,000-square feet and five floors are multi-purpose classrooms, a large resource room, a 132-seat lecture hall with a floor-to-ceiling projection screen and surround-sound audio system, a computer science suite of rooms, a modern greenhouse and an observation deck for astronomy research. Laboratory space includes a dedicated Imaging Center with a confocal microscope; a nuclear magnetic resonance facility; a plant-tissue culture lab; a DNA sequencer room; and specially built labs for sustainable energy, environmental earth sciences, advanced biochemical and biotechnology research. These facilities and the equipment they house, as well as the building’s wireless network, provide faculty and students with the sophisticated tools to conduct hands-on research that enhance students’ analytical and problem-solving skills while allowing them to pursue scientific inquiry and observation in their chosen professional fields and to develop interdisciplinary connections.

In addition to its status as a multidisciplinary center for science education and research, the Science Building’s design has received the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) Silver Certification. Systems and materials used in construction were selected to minimize energy use and the impact on natural resources. Included in the facility are day-lighting controls in all classrooms and offices; a glass-encased atrium; a grey-water system that recycles water within the building; chilled beams for cooling office space; variable-speed drives on lab hoods; recycled steel beams; indoor air-quality monitoring equipment; and recycled/renewable content in the carpeting, flooring, and casework. The bioswale filtration system located just outside the main entrance collects rainwater runoff and is specifically designed to conserve and recycle natural rainwater as well as simulate a natural riverbed. Overall, the building provides a welcoming and attractive atmosphere for students and faculty while reaffirming Eastern’s commitment to environmental sustainability.

While the Science Building conforms to the latest environmental standards, it is what faculty and students do inside the building that illustrates Eastern’s commitment to scientific exploration. A liberal arts core curriculum that requires every student to take at least two science courses (including one laboratory class) before graduation ensures that all Eastern students will attend classes or labs in the facility. With every student receiving a solid, hands-on foundation in science, the Science Building has become the campus hub for scientific study and research.
Did You Know?

- At 174,000 square feet, the Science Building is the largest facility on Eastern’s campus.
- The building enables Eastern to continue its tradition of training outstanding mathematics and science teachers.
- Improved methods of science instruction, in collaboration with our new Child and Family Development Resource Center, also enhance the teaching of science at the preschool level.
- Science enrollments at Eastern have exploded since the Science Building opened in 2008. Biology enrollments have increased by nearly 20 percent. The number of computer science majors has increased by more than 25 percent, and the number of EES majors has increased 47 percent.

Facts About Eastern’s Math and Science Graduates

- Graduates of Eastern’s mathematics and biology departments are nearly twice as likely to be employed in Connecticut in their area of expertise as students who graduate from other state universities.
- According to statistics compiled by the Connecticut Departments of Labor and Higher Education, 80 percent of Eastern’s Biology graduates were employed in the state within one year of graduation.
- Eighty-nine percent of all graduates of the biochemistry program from the past five years are either employed in a scientific position or currently attending graduate/professional school.
- Surveys show that 67 percent of environmental earth science students gained employment after graduation. Most are employed by environmental consulting firms or government agencies. Another 17 percent go on to attend graduate school.
- Eastern graduates the third highest number of mathematics majors of all the colleges and universities in Connecticut. Approximately half of our math majors choose careers as secondary school teachers and are productive contributors to Connecticut’s educational system.
- Eastern’s biology graduates are very successful in getting into graduate school programs, with graduates admitted to biology programs at Yale, Dartmouth, Boston University and the University of Connecticut.
- Eastern graduates have an approximately 90 percent success rate in getting into professional school programs and acquiring jobs in biopharmaceutical companies in the region such as Pfizer and Amigen.
- Biology graduates who go on to teach biology at the secondary school level have had a 100 percent success rate in passing PRAXIS II exams. Many of them work as high school biology teachers in Connecticut.
Computer Science
Computer science education at Eastern emphasizes the fundamental principles of mathematics and the engineering sciences, and is broadened by substantial opportunities in the arts, social sciences, life sciences and humanities. Through the selection of electives, students may create specialized interdisciplinary tracks with computer science as the core of their study. The computer science program encourages this experimentation by defining additional minors. The management information systems minor prepares students to contribute to an increase in productivity and the generation of new products, services and ventures, using the latest computer applications for better communication, problem diagnosis and decision making.

An interdisciplinary minor in computer game design addresses the needs of students interested in simulation, human machine interaction and gaming for potential careers in animation, game engines, mathematics, modeling, network design, and hardware and software.

Mathematics
The mathematics major is designed for students who pursue careers such as actuarial work, high school mathematics teaching, sales support consulting, program management, financial analysis, or technical careers in industry or government, and for those who want to pursue further study in graduate school.

Physical Sciences
The Department of Physical Sciences is a multi-disciplinary department that offers courses in the areas of astronomy, biochemistry, chemistry, meteorology, physical science and physics. Eastern’s biochemistry major prepares students for careers in the biomedical, biotechnological, pharmaceutical, agricultural research and chemical industries, as well as university-affiliated research laboratories, hospital laboratories and government-sponsored research facilities. Eastern’s physical science minors give students a grounding in science from the subatomic to the entire cosmos. A minor in astronomy outreach and public presentation prepares students to present astronomy in a public or school planetarium.
Biology

Students in Eastern’s biology program become biologists through extensive hands-on experience, and spend more time in the laboratory and field than in lecture. Working with state-of-the-art equipment in small classes taught by a diverse full-time faculty, students cultivate an intellectual curiosity about life processes while developing analytical skills and technical expertise. Program graduates enter graduate/professional school programs or find employment in a variety of scientific fields, including genetics, dentistry, medicine, optometry, veterinary science, ecology, plant biology, marine biology, biotechnology and science teaching.

Since 1968, the Department of Biology has offered an annual international field experience in tropical biology — the longest-running field experience project at any college or university in Connecticut. In recent years, Eastern has offered two courses on an alternate-year basis: one at the Gerace Research Center on San Salvador Island in the Bahamas and the other in the Sarapiqui region of northeastern Costa Rica. Each course offers unique educational opportunities and experiences.

Environmental Earth Science

The environmental earth science (EES) major provides a broad-based education in the earth sciences while remaining firmly grounded in geology. Courses in chemistry, physics, mathematics and computing are integrated into the major to provide the diverse background necessary for analyzing environmental problems. The EES track addresses areas such as geologic hazards and groundwater contamination. The Sustainable Energy Science track is appropriate for students interested in the impact of energy consumption on humans and the natural environment and the application of renewable energy to addressing these problems. In addition to formal coursework, independent studies and internships offer students the opportunity to integrate field, laboratory, technical writing and/or computer skills in the investigation of environmental problems. Minors are also offered in hydrogeology, sustainable energy studies, geomorphology and geographic information systems.
Additional Building Features
The ground floor of the Science Building features special labs for Environmental Earth Science as well as a microscopy center. The first-floor greenhouse has an adjacent plant tissue culture lab for integrated plant research from the cell to the ecosystem scale. The roof top of the building is the location of an Astronomy observation deck. Sustainable energy studies are conducted in a fourth-floor lab with rooftop access.
Laboratory and field experiences are vital components of mathematics and science courses at Eastern, providing students with hands-on opportunities to solve problems, using modern research techniques to analyze and interpret data, and communicate their findings.

The measured assessment of wind power potential in Willimantic and developing electronic resources for teaching a high school lesson on cellular biology are just two examples of how scientific research by undergraduate students is flourishing at Eastern. Undergraduate research and creative activity done in partnership with faculty or other mentors is a vital component of higher education. This is fundamental in the sciences, but increasingly true in the social sciences and arts. Each year in every discipline, Eastern students undertake original research and creative projects, working closely with faculty mentors to understand and perform the professional activities within their chosen field.

Faculty members are continually looking for different ways to align undergraduate research with their expertise, through traditional research, service learning, field experience or creative activities. For instance, on average, more than 330 independent study projects are undertaken in the School of Arts and Sciences’ 12 departments every year, while nearly 100 students at the graduate and undergraduate levels conduct research projects in the School of Education and Professional Studies. Independent research projects are conducted by students with faculty supervision, some continuing over two semesters.

Past science projects have included research on the mechanism of flagella regeneration in *C. reinhardii*, studies of the effects of prolactin in the neuroendocrine control of smoltification in fisheries management, work on the design and implementation of an embedded supervisory control for a robotic platform — and much more.

Perhaps the best way to witness what Eastern students are learning through undergraduate research is at the Arts and Sciences Research Conference and Exhibition and the Excellence Expo, both held on campus each April since 2000.
The scope of undergraduate research is on display at these events, with poster presentations, exhibits and discussions of research findings. Eastern students often go on to present their research at professional meetings and regional, national and international scientific conferences, where they frequently win awards.

**Undergraduate Experiences**

- Each year, there are at least 10-20 student presentations at undergraduate venues such as Eastern’s School of Arts and Sciences Student Research Conference and Exhibition, the Beta Beta Beta Northeast District Convention and the Eastern Colleges Science Conference. Approximately half that number also attend and/or present at national and international conferences, including the International Chlamydomonas Conference, the International Conference on Immunology and Aging, and the Annual Meeting of the Waterbird Society.

- Since 1968, Eastern students have accompanied faculty members each summer to conduct research activities in the Caribbean.

- Honors Program students participate in the Northeast Region Honors Council Conference in Harrisburg, PA.

- Student/faculty projects in environmental earth science have included the use of ground-penetrating radar and terrestrial laser scanning to examine sites in Georgia and Connecticut; sedimentological studies of the stratigraphy of sedimentary rocks in Manchester, CT; the assessment of wind-power potential in the Willimantic area; hydrologic studies of nearby wetlands; and a GIS analysis of soil loss within the Niantic, CT, quadrangle.

- Students have presented studies at the Geological Society of America Annual Meeting, the Northeastern Geological Society of America meeting and at Eastern’s Annual Undergraduate Research Conference.

- Biology students have been awarded summer internships at SUNY Upstate Medical University.

- Undergraduate biology students have coauthored manuscripts that have been published in prestigious, refereed science journals.
FACULTY RESEARCH AT EASTERN

Exploring ideas from multiple perspectives is an essential component of the liberal arts experience. The University is fortunate to have highly talented faculty with diverse interests that span various disciplines. From mathematics and meteorology to computer game design and chemistry, Eastern’s faculty members address complex research questions that advance the practice of science.

Many faculty members engage actively in research programs that are varied, diverse and award-winning. Six Eastern faculty members have been awarded Fulbright scholarships in the past five years. Two Eastern faculty members have received system-level Teaching and Research Awards from the Connecticut State University System in the past three years. Members of the science faculty have frequently been named distinguished professors, an annual award given by the University. Fred Loxsom, professor of sustainable energy studies, was Eastern’s first endowed chair.

Eastern faculty members also regularly publish works ranging from in-depth research to textbooks to personal accounts of experiences, academic and otherwise. Faculty research is consistently funded by a variety of sources for regional and international study.

Faculty research interests include studies on such topics as animal physiological ecology; human-induced impacts on invertebrate populations; the causes and consequences of coral reef decline; habitat restoration and conservation; microbial pathogenesis in human viral diseases; mobile computing technology; robotics; the geology of Connecticut; fuel cells, nano-materials and methane hydrates; physical biochemistry; and the interface between mathematics and medicine.
OTHER SITES ON CAMPUS

In addition to the Science Building, students have the opportunity to conduct research, solve problems and put science theory into practice at a number of other sites.

Institute for Sustainable Energy
The Board of Trustees of the Connecticut State University System established the Institute for Sustainable Energy at Eastern in 2001 to promote the awareness and understanding of sustainable energy issues statewide. The institute, located at 182 High Street, focuses on matters relating to energy education; energy policy; energy efficiency; energy conservation and load management; renewable energy; distributed generation; protection of environmental resources; and the dissemination of useful information on energy alternatives and sustainability to users and providers of energy. The institute adds an unbiased focus on practical applications and dissemination of information about how to improve the energy profile and sustainability of Connecticut and the region.

Arboretum
The Arboretum — Eastern’s environmental field laboratory — is a 19-acre campus nature preserve that includes varied biological habitats within a forest wetland landscape. Throughout the years, a substantial body of student research has been conducted in the Arboretum to investigate environmental factors that impact biodiversity. Hydrology and geomorphology students have measured stream flow rates and estimated the interactions between campus grey water, shallow groundwater and stream flow. Students have also examined the hydrochemistry of stream water and several groundwater springs, which has resulted in a variety of maps depicting pond depth. Several honors theses have been based on Arboretum research and have generated new interdisciplinary opportunities for further faculty research. The use of this nature preserve by arts classes, to teach local schoolchildren and to initiate preschool classes in an appreciation of nature makes the Arboretum a campus treasure.
Robert K. Wickware Planetarium
The Robert K. Wickware Planetarium is Eastern’s teaching and presentation planetarium. The facility is used for university teaching and for public and private star shows. Students who minor in Astronomy Outreach and Public Presentation learn how to produce and present planetarium shows and how to use the planetarium’s projection systems, including a new Spitz System 512 Star Projector and a new LED Cove lighting system. The 512 Star Projector, which contains the latest electronic controls, projection systems and precision motors, can display 2,350 stars and creates the appearance of the simulated night sky in a more realistic fashion.

The planetarium is also used as an outreach service that presents free astronomy shows to students and staff, as well as local K-12 classes and community groups. The outreach programming reaches nearly 1,000 people per year.

Church Farm in Ashford, Connecticut
Gifted to the ECSU Foundation, Inc. by Joseph and Dorothy (Church) Zaring in 2007, the 110-acre Church Farm in Ashford provides Eastern students and faculty with another off-campus natural environment where interdisciplinary connections are made. The site provides students with opportunities to learn best practices in conservation, the importance of habitat diversity, the history of farming in New England and how the study of nature can be used to develop an appreciation for the arts.

In recent years, Biology and EES students have conducted field studies and sediment core sampling in the farm’s pond to record human-induced environmental changes, including the damming of the pond in the early 1900s and the subsequent construction of nearby Route 89, and have collected 180-degree fisheye imagery to depict the geomorphology of the property. Framed against a picturesque backdrop, the site is also often used by painting and drawing students in the Visual Arts Department for landscape art classes, and has served as host for a variety of poetry readings, workshops, and theatrical and musical performances.
NOTABLE ALUMNI

Robert Altamura ’78 | Professor of geology and environmental science, Pennsylvania State University, State College, PA

Adam Baldinger ’88 | Curatorial associate, Department of Invertebrate Zoology, Harvard University Museum of Comparative Zoology, Cambridge, MA

Melissa (Spence) Bezanson ’04 | Assistant geoscientist at Weston Solutions, Inc.; a private environmental engineering firm with offices worldwide

Tracey Boyden ’89 | Senior Research Scientist at Pfizer, Inc., Groton, CT. Works in the pharmacokinetics, dynamics and metabolism department on the development of new medicines for cancer patients; holds several U.S. patents.

“The one-on-one attention at Eastern got me excited about science. We were exposed to a lot of different ideas and concepts, which laid the groundwork for me to be resilient in my career. I’ve experienced a lot of changes throughout my years of working in pharmaceutical research, and it was the broad-based scientific education I received at Eastern that has enabled me to handle those transitions and tackle difficult challenges.”

Thomas Connors ’80 | Chemist, Colgate-Palmolive Company, Piscataway, NJ | Holds 28 U.S. patents in the area of consumer product formulations

Vincent A. Connors ’78 | Professor of invertebrate and cellular biology, University of South Carolina Upstate, Spartanburg, SC

M. Denise Dearing ’85 | Associate professor of ecology, University of Utah, Salt Lake City, UT

Dr. Zygmunt Dembek ’73 | Public health scientist, Center for Disaster and Humanitarian Assistance Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD

Francis Doherty ’76 | Founder and president of AquaTox Research, Syracuse, NY, a testing company that analyzes the effects of toxins on aquatic species

Dr. Francis Falck Jr.’75 | Ophthalmologist, cataract surgeon and director of Falck Eye Center, LLC, Waterford and Mystic, CT. Co-developer of the most widely used surgical procedure for glaucoma treatment; actively involved in eye instrumentation research; holds several patents; has written more than a dozen publications regarding the treatment of eye disease and is a frequent lecturer; has served as a consultant to the National Academy of Sciences; is the recipient of multiple honors and awards, including the 2010 Man of the Year in Medicine and Healthcare from Cambridge University; and has been recognized by the American Society of Cataract and Refractive Surgery for his contributions to cataract surgical procedures.

“My education at Eastern was very thorough, extensive and broad-based. It helped give me a strong science background and prepared me for becoming a physician.”

Katie Duggan ’07 | Project scientist with HRP Associates, Inc., Farmington, CT, an environmental consulting company specializing in civil/environmental engineering and hydrogeology

Dr. Wendy Ernst ’93 | Veterinarian in private practice, Lebanon, CT

David A. Franzi ’77 | Distinguished Teaching Professor of Earth and Environmental Science, Plattsburgh State University, Plattsburgh, NY
Heather Fried '01 | Science teacher, East Lyme High School, East Lyme, CT | Received 2001 Henry Barnard Award for Distinguished Students from the Connecticut State University System and the 2004 George Mercer Award from the Ecological Society of America for best published ecology paper

Brett Harnett ’84 | Associate Director of the Center for Surgical Innovation and assistant professor in the Department of Surgery, University of Cincinnati, OH

Meredith Hoskins ’07 | Environmental scientist at Maguire Group Inc., Foxboro, MA

Frederick Johnson ’78 | Senior vice president for GEI Consultants, Inc., an environmental consulting firm with locations throughout the United States

Dr. Michael Johnson ’97 | Oral surgeon with Hamden-Shoreline Oral and Maxillofacial Surgery Associates; Hamden, Guilford and Clinton, CT | Named one of Connecticut’s Top Dentists of 2009 in his specialty by Connecticut Magazine

Dr. Marc Freeman ’93 | Assistant Professor of Neurobiology, University of Massachusetts Medical School, Worcester, MA. Awarded a five-year Howard Hughes Medical Institute Early Career Scientist Program grant in 2009 for his research on the glial cells of fruit flies that facilitate nerve development, migration and communication, which is important for developing potential therapies for spinal and nerve injury and neurodegenerative disease.

“Few schools offer the combination of advantages that I got at Eastern. Key factors in my development were having the opportunity to present my work at regional, national and international meetings; being invited to spend the summer working with top researchers at Cornell and Yale; continuous personal attention from the faculty; and lab-based training that gave me practical and analytical skills that were invaluable in graduate school.”

Brian LaBrec ’91 | Director of Engineering and Operations at Foster Corporation, Putnam, CT, a developer of precision polymer devices for the medical, pharmaceutical and bioengineering fields

Dr. Mark Mashia ’89 | Chiropractor, Neurosurgical Orthopedic and Spine Specialists, Waterbury, CT

Dr. Thomas Poirier ’76 | Infectious disease specialist, Gainesville, FL

James Posada ’85 | Owner, Posada & Associates, Boise, ID | A company which provides strategy and business development services to the biotechnology industry

Robert Schmidt ’00 | Surface anti-submarine warfare combat system resource officer at the Pentagon, Washington, DC

Dr. E. Scott Seeley ’99 | Chief pathology resident and post-doctoral fellow, Department of Molecular and Cellular Physiology, Stanford University Medical School, Stanford, CA

Gayle (Lambert) Sirpenski ’78 | Animal management specialist, Mystic Aquarium Institute for Exploration, Mystic, CT

Laurens H. Smith Jr. ’77 | Vice provost and professor of biology, Utah State University, Logan, UT

Russell White ’81 | Assistant director of collections, Peabody Museum at Yale University, New Haven, CT

Basha M. (Zabielska) Wynne ’00 | Submarine combat systems computer analyst; Naval Undersea Warfare Center (NUWC), Newport, RI

Dr. Ryan A. Zengou ’99 | Neurosurgery resident, Rush University Medical Center, Chicago, IL

Eric Lazo-Wasem ’79 | Senior collections manager, Department of Invertebrate Zoology, Peabody Museum at Yale University, New Haven, CT
EASTERN’S MATH AND SCIENCE ACHIEVEMENTS

• Every year, a significant number of Eastern students are selected for membership in various national honor societies in recognition of their distinguished academic achievement in the scientific disciplines. Students have been inducted into the Upsilon Pi Epsilon International Honor Society for Computing and Information Disciplines, the Kappa Mu Epsilon National Mathematics Honor Society and the Beta Beta Beta National Biological Honor Society.

• Since the start of the Connecticut State University System (CSUS) Henry Barnard Distinguished Student Award in 1989, 26 percent of Eastern's winners have been science or mathematics majors, with three of them in the past five years.

• In 2010, two students were awarded NASA funds for undergraduate research.

• A mathematics student had her honors thesis accepted for publication in “Involve,” a mathematics journal dedicated to showcasing student research.

• An EES student was awarded third place in an undergraduate student poster award competition held at the 2008 Northeastern Section Meeting of the Geological Society of America in Buffalo, NY.

• Graduate school and medical school acceptances of Eastern science majors have included:

  ◊ Dartmouth Medical School
  ◊ Tufts School of Veterinary Medicine
  ◊ Yale University
  ◊ Massachusetts College of Pharmacy and Health Sciences
  ◊ Wesleyan University
  ◊ University of California-Berkeley
  ◊ Virginia Tech
  ◊ Cornell University
  ◊ University of London Veterinary School
  ◊ New York University
  ◊ Boston University
  ◊ University of North Carolina-Chapel Hill
SCIENCE BUILDING SPECIFICATIONS

• 173,509 square feet on six floors
• General-purpose classrooms, laboratories, large resource room
• 150-seat lecture hall with sophisticated audio-visual systems
• Computer science suite of rooms
• Imaging Center with transmission and scanning electron microscopes and a confocal microscope
• Specially built labs for microscopy
• Laboratories equipped with modern high-tech instrumentation, including mass spectrometers, high-performance liquid chromatography and microplate readers
• Science library
• Glass-enclosed atrium
• Local/regional materials, including maple millwork, brick and slate flooring

ACADEMIC BENEFITS

• A modern, functional and well-equipped space for faculty and students
• Improves capacity for excellent science instruction and research
• Consolidates all science disciplines from seven buildings into one facility
• Creates a synergy between departments and promotes interdisciplinary studies
• Dedicated research space provides opportunities for undergraduate students to interact with faculty
• Conference site for local and regional meetings, especially for undergraduate research

ENVIRONMENTAL BENEFITS

• Building was constructed to meet U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) Silver Certification Standards
• Recycled steel structure
• Bioswale limits stormwater runoff
• Rainwater collected for landscape irrigation and waste conveyance
• Day-lighting controls in classrooms and office wing
• Grey-water system reduces water use
• Variable-speed drives on lab hoods
• Recycled/renewable content in carpeting, flooring and casework
• Indoor air-quality monitoring equipment
• Super-insulated walls and high-performance windows
• Chilled beams for cooling office space
• Energy Star-rated roofing

AWARDS

The Science Building at Eastern Connecticut State University won the top award in 2009 from the Connecticut Chapter of the American Society of Landscape Architects (CTASLA). The CTASLA conducts the Connecticut Design Awards each year to recognize excellence in landscape architectural design, planning and analysis, communication and research. The Science Building and other University efforts in sustainability also resulted in Eastern being named one of the nation’s “Green Colleges” in 2010 and 2011 by The Princeton Review.