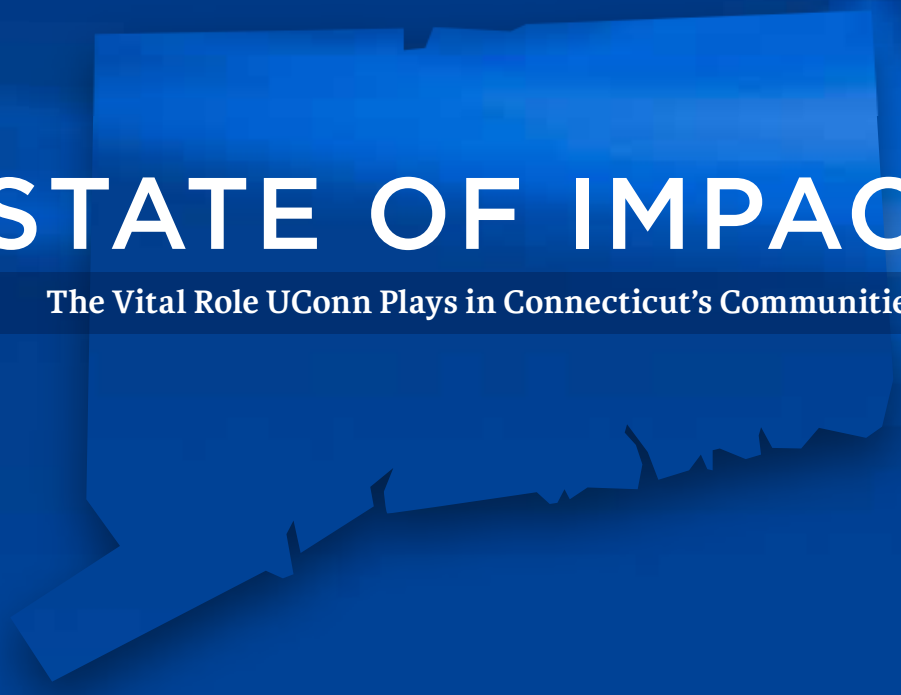


STATE OF IMPACT

The Vital Role UConn Plays in Connecticut's Communities

UCONN
UNIVERSITY OF CONNECTICUT

Contents

State of Impact is a special publication spotlighting the impact the University of Connecticut has on Connecticut's communities.

EDITORS Julie Bartucca, Craig Burdick, Kimberly Phillips

CONTRIBUTING WRITERS Anna Zarra Aldrich, Courtney Chandler, Chris DeFrancesco, Mike Dietz, Olivia Drake, Danielle Faipler, Elaina Hancock, Mikala Kane, Helene Marcy, Grace Merritt, Betsy Mortensen, Mac Murray, Kimberly Phillips, Stephanie Reitz, Jaclyn Severance, Stacey Stearns, Claire Tremont, Lauren Woods

DESIGNER Sean Flynn

PHOTOGRAPHY Steve Bustamante, Tina Encarnacion, Sean Flynn, Sydney Herdle, Margaret Malmborg, Peter Morenus, Jason Sheldon, Ashley Stimpson (UConn Foundation), Contributed Photos

University of Connecticut
University Communications
34 North Eagleville Road, Unit 3144
Storrs, CT 06269
uconn.edu

Empowering Our Communities

UConn's impact on Connecticut, its people, and its future extends far beyond the exceptional education we offer our students and the world-class research our faculty produce. UConn is also home to countless services, programs, centers, and institutes that are performing vital public service functions that positively affect every single community in our state.

In this publication, we highlight the ways in which the University helps the state — and what programs and services are available for residents who may wish to reach out and take advantage of one or more. Each section contains a mixture of data demonstrating UConn's influence, resources available that contribute to the direct results, and how to learn more about or contact each entity.

The list is a long one: UConn helps fuel innovation and entrepreneurship, engaging directly with businesses large and small, growing our economy, and producing jobs. Our Extension service is active in all of the state's 169 cities and towns, delivering tens of thousands of hours of training, education, and outreach to Connecticut residents each year. UConn researchers are working with communities across our state to promote sustainability and protect the environment as we battle and adapt to climate change. UConn organizes and supports myriad health and wellness programs across our state, serving citizens of every age, community, and background, touching every aspect of life from nutrition to air quality to food insecurity. And UConn's role in education in Connecticut is not confined to our students alone; UConn's education programs play an enormous role in K-12 education in Connecticut, for both educators and students.

State of Impact contains critical highlights and useful information, but it's not everything — there is simply too much work being done by the University throughout the state to fit into a single publication. But it can serve as a reference guide for Connecticut residents, helping to identify the UConn resources that are available to them.

They are some of the many ways UConn is here to serve Connecticut.

RADENKA MARIC
PRESIDENT, UNIVERSITY OF CONNECTICUT

To partner with UConn, connect with the Office of Outreach and Engagement at **outreach.engagement.uconn.edu** or the UConn Business Engagement Portal at **impact.uconn.edu/impact-partnerships**.

Economic Impact

As Connecticut's flagship public university, UConn drives the state's economy through education, innovation, and research.

48,575

Jobs Supporting 1 in Every 35 Jobs in Connecticut

$429M

State Revenue Supporting Public Services

$8.46B

Economic Output Driving the State's Economic Growth

32,000

Students Building Future Workforce

UCONN STORRS

25,182

Jobs Supported

$4.35B

Economic Output

UCONN HEALTH

20,737

Jobs Supported

$3.65B

Economic Output

(Sean Flynn/UConn Photo)

REGIONAL CAMPUSES

2,656

Jobs Supported

$459M

Economic Output

UCONN AVERY POINT

492

Jobs Supported

$85M

Economic Output

UCONN STAMFORD

648

Jobs Supported

$111M

Economic Output

UCONN HARTFORD

1,278

Jobs Supported

$222M

Economic Output

UCONN WATERBURY

238

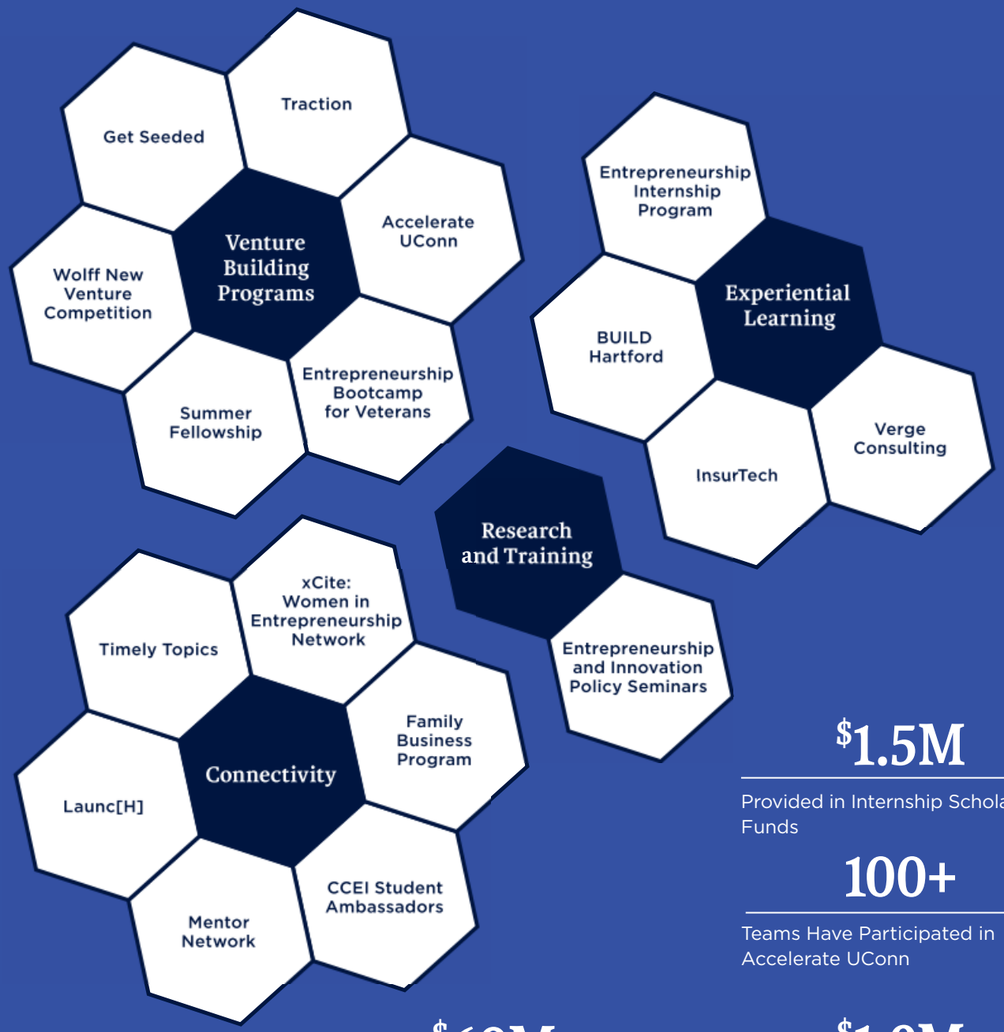
Jobs Supported

$41M

Economic Output

Entrepreneurship Programs

Connecticut Center for Entrepreneurship and Innovation (CCEI)



$1.5M

Provided in Internship Scholarship Funds

100+

Teams Have Participated in Accelerate UConn

$60M

Raised in Follow-on Funding

$1.9M

Provided in Venture Funding

950+

Ventures Supported

1,100

Entrepreneurs Supported

Werth Institute for Entrepreneurship and Innovation

100+

Werth Innovators Since 2018

$372K

in Scholarships to Werth Innovators

125+

NetWerx Alumni Mentors

$22.5M

Commitment From Peter J. Werth for Entrepreneurship Programs

45+

Institutions in UConn-Led University Council for Neurodiversity Employment

Connecticut Small Business Development Center

34,669

Jobs and

9,378

Companies Supported in the Past Three Years, Including:

3,606
Minority-Owned Businesses

6,502
Women-Owned Businesses

521
New Business Startups

The Center Has Helped Businesses Access

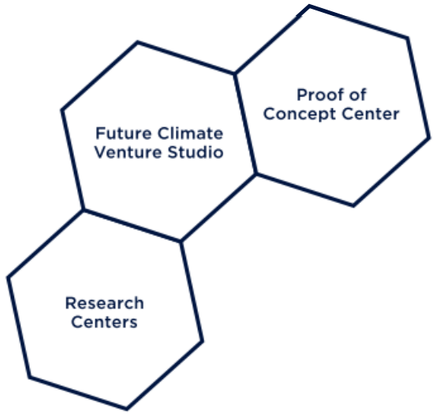
$314.6M+

in Capital, Including:

$24.3M
for Minority-Owned Businesses

$110.6M
for Women-Owned Businesses

Innovation Partnership Building at UConn Tech Park



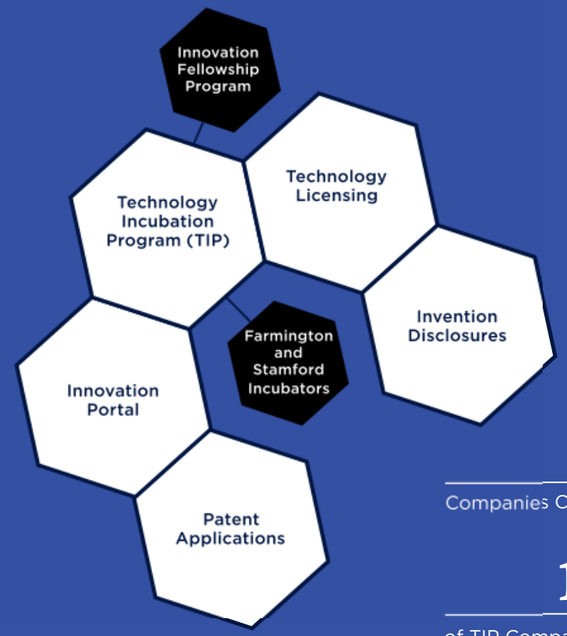
$225M
in Applied Research and Development

350
Industry and Government Visitors

15
Research Centers

60+
Hi-Tech Instruments Available

UConn Technology Commercialization Services (TCS)



771
Patents Granted Based on UConn Innovations

$620M
in UConn Research Economic Impact

$1.1B
Raised by UConn

100+
Startups Backed by TIP in Past Five Years, Creating More Than 2,000 Jobs

$183M
Raised by TIP Companies in FY22

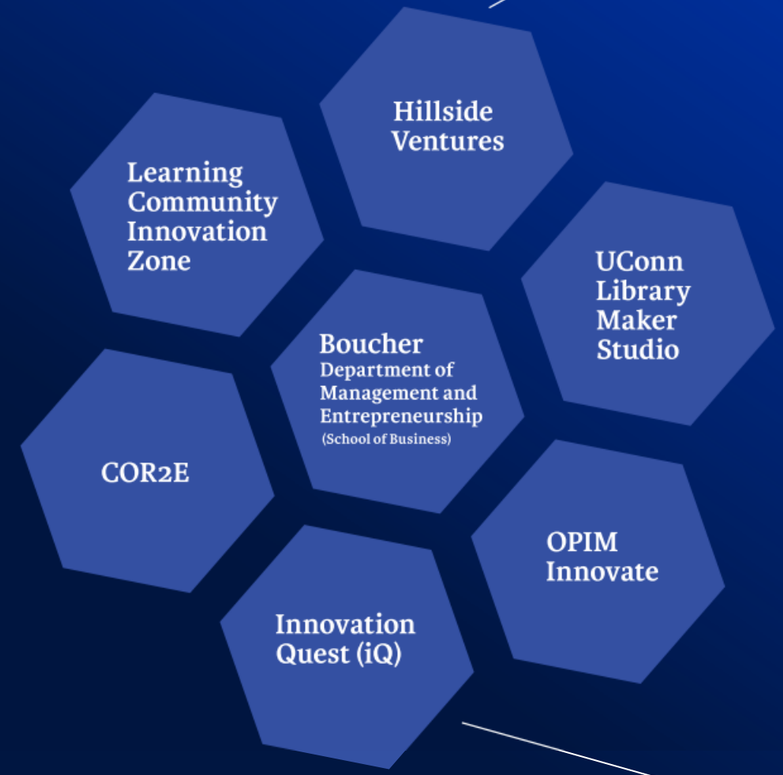
71
Companies Currently in TIP

15%
of TIP Companies Are Women-Owned

516
TIP Company Employees

31
Student Analysts

$1M
to Make an Impact



2,500+
Student Participants Since 2012

UConn Is Ranked in the

TOP 50

for Both Undergraduate and Graduate Entrepreneurship Programs by the Princeton Review

UConn Hosts Economy-Boost Brainstorm

Scores of esteemed industry leaders, researchers, entrepreneurs, and public officials came together at UConn Storrs in October 2024 to share ideas on combining their organizations' energy and expertise to grow a robust, sustainable Connecticut economy.

"UConn Forum: Economic Engine of a Thriving Connecticut" featured discussions on driving the state's economy through several key growth areas including advanced manufacturing, sustainable energy, fintech, biotech, quantum computing, artificial intelligence, and other realms.

Panelists and participants praised the event as a unique opportunity to learn about innovations in various industry sectors and inspire ideas for collaboration, including by drawing on UConn expertise.

With an annual impact of $8.5 billion on the state's economy, UConn takes seriously its responsibility to help drive Connecticut forward, President Radenka Maric told the crowd in welcoming remarks. That includes sharing its research expertise, helping foster startup businesses and technologies, ensuring its graduates are entrepreneurial and workforce ready, and doing all within its power to keep them in Connecticut to build their careers and lives.

A common theme throughout the day's discussions was Connecticut's innovative spirit and enviable strengths, including a well-educated workforce, diverse population, strong schools, family-friendly quality of life, and innovation-oriented business ecosystem.

Forum participants also agreed it's a perfect time to accelerate the collaborations between industry and higher education — particularly as Connecticut is regaining population lost during the recession, has seen a noteworthy jump in business startups, and is developing new technologies in several fields.

Several new collaborations have immense promise, such as the QuantumCT public-private partnership led by UConn and Yale University, which aims to win federal funding to transform Connecticut into the nation's leading accelerator of quantum technologies. This is the first time UConn and Yale have partnered on an initiative of this scope.

UConn President Radenka Maric addresses attendees at the "UConn Forum: Economic Engine of a Thriving Connecticut" event held Oct. 31, 2024, at UConn Storrs. (Sydney Herdle/ UConn Photo)

Supporting Innovation Throughout the State

At UConn, a variety of centers and institutes bring together the expertise and resources that entrepreneurs, small business owners, inventors, and others need to succeed and impact our state economy.

CONNECTICUT CENTER FOR ENTREPRENEURSHIP AND INNOVATION (CCEI)

Since its founding in 2007, the CCEI has transformed entrepreneurship programming to support new venture development. CCEI supports students, faculty, and alumni as they are innovating and creating solutions to some of the world's greatest problems. CCEI aims to empower entrepreneurs and innovators, create a vibrant startup ecosystem, and contribute to economic development in Connecticut through resources, mentorship, and networking opportunities that help entrepreneurs build sustainable businesses and make a positive impact on society.

ccei.uconn.edu | ccei@uconn.edu

CONNECTICUT SMALL BUSINESS DEVELOPMENT CENTER (CSBDC)

Trained and experienced full-time advisors at the Connecticut Small Business Development Center (CSBDC) work with a variety of small businesses in all industries and stages of development by providing no-cost advisory services. A partnership between the UConn School of Business, the state Department of Economic and Community Development, and the U.S. Small Business Administration, the CSBDC is an accredited member of America's Small Business Development Center Network — the most comprehensive small business assistance program in the United States with a proven track record of providing over 40 years of service to small businesses. The Center aims to help Connecticut businesses launch and grow to create jobs, increase business startups, and increase financial investment in the small business and entrepreneurial community.

ctsbdc.uconn.edu | ctsbdc@uconn.edu

UCONN FAMILY BUSINESS PROGRAM

Part of the Connecticut Center for Entrepreneurship and Innovation, the UConn Family Business Program has evolved into a dedicated resource hub for local family businesses. This shift reflects a commitment to providing meaningful support, enabling family-owned businesses to navigate today's ever-evolving economic landscape. Through the program, business leaders can access a wealth of tools, resources, and insights designed to help address the unique challenges family businesses face — from adapting to market shifts to strengthening management practices and enhancing long-term planning. The goal is to equip local family businesses with what they need to grow and succeed, while fostering a community of collaboration and shared knowledge among business owners.

ccei.uconn.edu/programs/family-business-program

THE CONNECTICUT MANUFACTURING SIMULATION CENTER (CMSC)

CMSC provides technical assistance to the Connecticut manufacturing community using high-performance computing-based modeling and simulation and trains the next-generation workforce with computing and simulation skills. CMSC's core assets and capabilities include model-based definition through high-fidelity modeling and simulation, which are strengthened by digital twinning and machine learning infrastructures developed by Center experts. As the manufacturing sector is going through the Industry 4.0 revolution, it is imperative for small- and medium-sized manufacturers (SMEs) to incorporate rapidly advancing digital technologies into product development and process optimization. While SMEs may not have relevant expertise or resources, CMSC can help.

cmsc.uconn.edu

CONNECTICUT CENTER FOR ECONOMIC ANALYSIS (CCEA)

The CCEA in the UConn School of Business specializes in economic impact and policy analysis studies, as well as advising clients regarding business strategy, market analysis, and related topics. CCEA focuses particular attention on the economic and business dynamics of Connecticut. CCEA was created at the request of Gov. Lowell Weicker in 1992 to provide timely and reliable information regarding Connecticut's economy and to evaluate the potential impacts of proposed policies and strategic investments. By mobilizing and directing the expertise available at UConn, state agencies, and the private sector, CCEA aims to equip the public, decision-makers, and stakeholders with transparent analyses to facilitate systematic, thoughtful debate of public policy issues.

ccea.uconn.edu

CENTER FOR REAL ESTATE AND URBAN ECONOMIC STUDIES

Established by the Connecticut General Assembly in 1965, the UConn Center for Real Estate and Urban Economic Studies in the School of Business focuses on real estate education, research, and industry outreach. The center provides academic programs, conducts research on real estate markets and trends, offers networking opportunities for students and professionals, and hosts events and conferences related to real estate. It aims to prepare students for careers in real estate and to serve as a resource for the real estate industry.

realestate.business.uconn.edu

INTELLECTUAL PROPERTY AND ENTREPRENEURSHIP LAW CLINIC

The clinic assists eligible Connecticut innovator-entrepreneurs with intellectual property matters, including patent, copyright, and trademark issues. Students working under the supervision of experienced intellectual property attorneys interview and counsel clients, conduct trademark and patent searches, register trademarks and copyrights, and prosecute patent applications.

s.uconn.edu/ipclinic

DIGITAL FRONTIERS INITIATIVE (DFI)

Led by the Department of Operations and Information Management in the UConn School of Business, DFI pioneers the fusion of technology and business to shape the future of operations and information management. The mission of DFI is to empower individuals and organizations by providing comprehensive training in IT, business analytics, and emerging technologies. DFI fosters a culture of continuous learning and innovation, offering a blend of academic excellence, professional development opportunities, and experiential learning to cultivate the next generation of leaders, entrepreneurs, and innovators.

digitalfrontiers.business.uconn.edu | **dfi@uconn.edu**

UConn students Audrey Larson, left, and Angel Velasquez pose for a photo on campus on Aug. 17, 2022. The rising sophomores are entrepreneurs who run two companies together currently – an apparel company that hopes to partner artists with charities, and an app startup that's focused on college campus safety. (Sydney Herdle/UConn Photo)

Shikha Sharma presents a lecture during the Entrepreneurship Bootcamp for Veterans with Disabilities in the School of Business. (UConn Photo)

ENTREPRENEURSHIP BOOTCAMP FOR VETERANS (EBV)

Part of the School of Business since 2010, the EBV offers cutting edge, experiential training in entrepreneurship and small business management to post-9/11 veterans. The EBV program showcases the transformative power of entrepreneurship, driving job creation and economic growth while empowering veterans to build thriving businesses in their communities. The EBV is designed to give focused, practical training in the tools and skills of new venture creation and growth and the establishment of a support structure for graduates of the program.

ccei.uconn.edu/ebv

THE FOUNDRY

Through The Foundry, a STEM business development lab within UConn's Daigle Labs, principal investigators employ organization research to experiment with creating businesses around science and technology breakthroughs, focusing on the areas of artificial intelligence and computing; energy and transportation; and agriculture, waste, and biodiversity. The Foundry partners with scientists and entrepreneurs engaged in important science and technology commercialization; helps them acquire funding, build out supply chains, and achieve initial sales; and provides formal management coaching to spur the commercialization of their novel products and services.

daiglelabs.business.uconn.edu/stem-startup-research

daiglelabs@uconn.edu

(Margaret Malmborg/UConn Photo)

(Sean Flynn/UConn Photos)

Fostering a Vibrant College Town in Hartford

While the regional campus in the restored Hartford Times building is the nexus of UConn's presence in Connecticut's capital city, it's but one of a growing number of locations, programs, and initiatives underway that deepen the University's ties with Hartford.

UConn's presence in Hartford continues to grow, including plans to offer 200 beds of student housing in the bustling downtown Pratt Street district, the recent opening of a nearby research center, the growth of local internships and a planned co-op program, and other initiatives.

UConn is working with local and state leaders, the city and regional business community, alumni, and others on the "UConn IN Hartford" initiative, which seeks to provide students a community-centered experience in the capital city while they pursue their academics at UConn.

Scores of those supporters gathered in fall 2024 to learn more about the University's plans and to tour 64 Pratt St., which will be transformed from its former use as a law office into apartment-style units for about 200 UConn Hartford students.

To expand access to the Pratt Street housing opportunity, the UConn Foundation has launched the new Hartford Residential Scholars Enhancement Fund, which will harness community contributions to provide stipends for qualifying students who want to live in the apartments but couldn't otherwise afford it.

UConn's presence in Hartford also includes the School of Law in the West End, the main campus at 10 Prospect St. and the nearby School of Social Work at 38 Prospect St., UConn Health's Health Disparities Institute at 241 Main St., and the Graduate Business Learning Center and Connecticut Center for Entrepreneurship and Innovation's BUILD Hartford course, both at Constitution Plaza.

The newest UConn presence in Hartford is a big one: The University recently opened its new Community Intersections & Innovation Space for research and academic uses at 229 Trumbull St., also known as Hartford 21, very close to the student housing location.

The University has also significantly bolstered the wraparound student services available at UConn Hartford and other regional campuses. They include increasing medical and mental health care, adding Husky Harvest food pantries, boosting on-site career services, and other academic and social programs to build a sense of community and support student success.

Agriculture and Extension Services

UConn Extension has more than 100 years of experience strengthening communities in Connecticut and beyond by providing answers people can trust through programs and initiatives including 4-H and the Expanded Food and Nutrition Education Program (EFNEP). Extension programs address the full range of issues set forth in College of Agriculture, Health and Natural Resources' strategic initiatives. Programs delivered by Extension reach individuals, communities, and businesses in each of Connecticut's 169 municipalities.

169

Connecticut Towns Served by Between 7 and 33 Extension Programs Each Year

30.6M

Active Grants and Contracts

$5.4M

Value of 174,000 Volunteer Hours

500+

Extension Programs

(Sean Flynn/UConn Photo)

288,832

Educational Contacts

18,974

Total Hours of Training and Outreach

1,217

Online Courses and Certificate Programs

5,117

4-H and Master Gardener Volunteers

Master Gardeners (left to right) Karen Berger, Holly Hambleton '77 (SFA), and Michele Jenks at Collinsville Pollen Trail. (Contributed Photo)

UConn's Hidden Gem: Master Gardeners

Karen Berger spent the last eight summers removing Japanese knotweed from both sides of town property along the Farmington River Trail in Canton.

She and an army of other Master Gardeners have converted what was a tunnel of invasive knotweed into a spectacular display of native plants along the Collinsville Pollen Trail.

As they work among the dogwoods and native gardens dotting the trail, Berger and other gardeners enjoy fielding questions from passersby and encouraging them to consider planting native plants for pollinators. These gardeners also supervise gardening interns and organize local projects along the trail, directing Eagle Scouts installing birdhouses and fifth grade classes planting cosmos seeds.

The Collinsville gardeners are among more than 700 Master Gardener volunteers who do community projects like this across Connecticut. These dedicated gardeners work to beautify and educate their communities through the UConn Extension-administered program. In 2023, Connecticut Master Gardeners provided more than 38,000 volunteer hours to communities across the state.

The Master Gardener Program is entirely self-funded, relying solely on donations from alumni and other supporters. These donations pay for classes to train the gardeners and the tools and supplies the gardeners need to tackle projects.

To become qualified as a Master Gardener, each volunteer must take 100 hours of academic training, learning everything from soil chemistry and insects to plant diseases.

Their volunteer work is science-based and quantified. After completing their classroom and field training, each gardener must donate 10 hours of community service and 10 hours of office work a year. Many take shifts at eight area UConn Extension offices across the state and the Bartlett Arboretum in Stamford. There, they provide free advice on everything from trimming pear trees and identifying insects to getting rid of goutweed.

Every project the gardeners take on must benefit a nonprofit or local community, fulfilling UConn's public engagement role as a land-grant university.

mastergardener.uconn.edu

Cynnamon Dobbs (Jason Sheldon/UConn Photo)

Urban Forestry Enables Environmental Justice

A multipronged approach to urban forestry and environmental justice led by College of Agriculture, Health and Natural Resources faculty is making an impact in communities around the state.

Cynnamon Dobbs, assistant professor of natural resources and the environment, and Mayra Rodríguez González, assistant UConn Extension educator in urban and community forestry, lead the urban and community forestry research and extension initiative, a partnership between the University and state and community organizations.

"Cities are not going anywhere," Dobbs says. "We need to find ways to make cities more livable and more resilient in the future, and urban forestry is one of the strategies we need to do that."

Trees provide a host of "ecosystem services," which include all the commercial and noncommercial benefits they provide. For example, plants absorb carbon through photosynthesis. Respiration in vegetation releases carbon into the atmosphere. The tree canopy also reflects light and provides shade. This is especially important in urban areas where "heat islands" are more common because concrete absorbs sunlight and retains heat.

Rodríguez collaborates with the Hartford Tree Advisory and is working on the Capital Forest Stewardship Initiative, a recent $6 million grant from the U.S. Department of Agriculture to the city of Hartford to plant trees.

She also gives presentations at a family wellness center in Hartford through a partnership with the Hispanic Health Council and delivers programming for children of all ages through the Hartford Public Library.

The urban and community forestry research and extension initiative also brought Latino Conservation Week — a Hispanic Access Foundation program that included free workshops and exhibits — to the state.

Dobbs, Rodríguez, and Robert Fahey, George F. Cloutier Professor in Forestry and director of the UConn Forest, are all members of the Connecticut Urban Forest Council, which provides assistance, education, information, and support to urban and community forestry professionals; associated professionals; municipal, state, and corporate leaders; and volunteers.

This initiative relates to a state Department of Energy and Environmental Protection grant Dobbs is leading that seeks to address barriers to accessing urban forestry programs. It will serve environmental justice communities in Danbury, Hartford, New Britain, New London, Waterbury, and Willimantic.

Attacking Invasive Species

Invasive plants are often beautiful and beneficial in their home regions, but problems arise when nonnative plants are introduced to new regions without natural controls.

According to Lauren Kurtz, the invasive species outreach specialist with the College of Agriculture, Health and Natural Resources, Connecticut has 22 aquatic invasives and 75 terrestrial invasives. Some species, like mugwort (*Artemesia vulgaris*), were brought to the United States in the 1600s. Many were introduced in the 1800s, and others are more modern introductions.

Invasive plants limit native plant growth; diminish woodlands, wetlands, and meadows; and reduce wildlife habitat.

UConn Extension and the state Department of Energy and Environmental Protection recognized the challenges invasive species present and convened the first Connecticut Invasive Plant Working Group (CIPWG) meeting in 1997. CIPWG's three-part mission includes gathering and conveying information, promoting the use of native and noninvasive ornamentals, and working cooperatively with various stakeholders to identify and manage invasive plants.

CIPWG also runs outreach programs on various invasives throughout the year. Individuals are trained in management strategies, and the group conducts outreach across the state.

The list of invasive plants is growing, too. Callery pear, quackgrass, Japanese angelica tree, Japanese wisteria, and Chinese wisteria were all added to Connecticut's invasive plant list in 2024, meaning sales are now illegal and management strategies were adopted.

UConn Extension publishes fact sheets that provide an overview of invasive species along with control options and is developing an invasive plant certificate program that will be available to the public.

"Eradication isn't the goal, it's habitat management and making positive changes where you can," says Kurtz. "It is possible to bring back native species and improve habitat for them to thrive."


(Getty Images)

Winter Worries: Road Salts and Private Wells

Though we only notice the white coating on asphalt parking lots or salt residue on our cars for a short time each year, stacks of scientific journal articles document the damaging effects of road salt on aquatic life, plants, and infrastructure. It can also negatively impact us as residents.

UConn Extension has worked for many years to raise awareness of this issue by convening statewide workshops and participating in workgroups with agencies including the state Department of Public Health, Department of Energy and Environmental Protection, and Department of Transportation.

Despite the concern and tireless efforts of many people across Connecticut to try to address this issue, no alternative product with less environmental impact has been found.

One ray of hope is the Green Snow Pro program being run by UConn's Training and Technical Assistance Center. Based on a program in New Hampshire, Green Snow Pro provides hands-on training for municipal public works staff. Participants learn how salt works and how to calibrate equipment to optimize the right product, in the correct amount, given the weather conditions. Staff in most of Connecticut's towns have been trained. Benefits include reduced salt applications, which translates to reduced costs for towns, while still maintaining safe conditions.

UConn Extension documented some of the benefits to local waters after UConn facilities received the training. Extension found that less salt accumulates in local waters in towns where this program is implemented, creating better conditions for plants and aquatic life and less potential contamination of drinking water sources.

The Connecticut Institute of Water Resources well testing program developed by UConn Extension makes it easier for private well owners to have their water tested, providing reduced-cost testing and optional educational workshops during which private well owners can learn about their wells and what is in their water.

Since the program started in 2022, UConn Extension has tested water for hundreds of rural residents in the state.

cti.uconn.edu/cti/Sustainable_Winter_Operations_Resources.asp

ctiwr.uconn.edu/welltesting/

Danbury Public Schools and UConn Extension Collaborate to Help the Community

A well-known proverb states, "It takes a village to raise a child." The Extended Learning Program (ELP) offered by Danbury Public Schools seeks to provide just that.

The program enhances youth development and helps parents fill gaps left by the educational system and full-time work schedules. Marlene Ho-Yen joined the ELP program staff in Danbury over 15 years ago. She discovered that UConn Extension's 4-H program was an integral part of the extended learning opportunities.

4-H is the largest youth development program in the country. Its mission is to help young people acquire knowledge, develop leadership and life skills, and form attitudes that enable them to become self-directing, productive, and contributing members of their families and communities.

In Danbury, 4-H introduced students to science, technology, engineering, and math in fun and engaging ways. The positive impact encouraged Ho-Yen to further strengthen the relationship. She started pursuing additional 4-H programs and 21st Century grants to hire 4-H staff for the schools.

She says the results were amazing: The students flourished.

"UConn 4-H is for the community — they are truly there to serve students and the residents of Connecticut in all different ways," Ho-Yen says. "The most rewarding thing is the 'wow' moments when students and families learn something."

Nutrition education was identified as another gap, so UConn Extension's Expanded Food and Nutrition Education Program (EFNEP) educators were brought into the partnership.

Classes are offered on food safety, shopping on a budget, and meal preparation, among others, with guardians earning a certificate at the end of the series. Gardens are planted for harvest in the summer and fall, and families visit a farmers market to help make the connection to their food and nutrition.

There are eight schools in Danbury's ELP program under Ho-Yen's management, and each has distinct needs. UConn 4-H and EFNEP programs are offered on a rotational basis through each of the schools.


High school students work to install a rain garden as part of a UConn Natural Resources Conservation Academy initiative. (Contributed Photo)

Extension Educators Launch School-Based Green Infrastructure Initiative

As anyone who's ever seen an overwhelmed storm drain or sloshed across a flooded sidewalk knows, urban development and heavy precipitation often combine to spell trouble. But few people are aware of existing stormwater management infrastructure and how they can implement local flooding solutions.

A team of environmental educators and professors within UConn Extension recently was awarded a $100,000 grant from the Environmental Protection Agency to carry out an innovative model of community-based education to help address this problem.

The UConn team is partnering with school districts and NGOs in several of Connecticut's disproportionately affected communities to create on-the-ground stormwater management solutions. In addition to mitigating storm damage and enriching local water quality, these solutions will provide valuable educational experiences in environmental stewardship.

"The students, the teachers, and the nonprofits all come together and — with our help — plan and then carry out a low-impact development project," says Nicole Freidenfelds, project manager and Natural Resources Conservation Academy (NRCA) program coordinator. "It gets the students involved and seeing that they can make a change in their community and also benefit the environment."

Rain gardens, bioswales, green roofs, and permeable pavements are all examples of projects that high schoolers may learn about or help implement, Freidenfelds says.

Each participating school within the partner school districts — Hartford Public Schools and Windham Public Schools — will be able to implement a system that makes sense for their specific geography and needs.

The ambitious project will be supported by community partner organizations: Keney Park Sustainability Project in Hartford, the Garden Club of Windham, and Traprock Ridge Land Conservancy in Bloomfield, East Granby, West Hartford, and Windsor. Each organization is receiving $5,000 to carry out local programming and assist students and teachers with building their green infrastructure installations.

Friends of Pope Park in Hartford and the Windham/Willimantic branch of the NAACP have also signed on to the project as advisory partners.

Freidenfelds says she hopes students come away from the experience with a renewed interest in environmental stewardship and maybe even a new idea for a career path — "maybe even seeing themselves continuing this work beyond high school."

A Sustainable Community Food System program fellow teaches Hartford students about how food is grown. (Contributed Photo)

Program Teaches Grade Schoolers About Sustainability, Environmentalism, and Social Justice

For one week in early summer 2023, 12 UConn student fellows from the Sustainable Community Food System (SCFS) program led creative activities to help rising fifth graders from the SAND School in Hartford understand sustainability, environmentalism, and social justice, and see pressing issues such as food insecurity and social injustice through a systemic lens.

The program aims to build stronger, more sustainable communities by educating elementary school students, as well as helping fellows become leaders in the shift to a more sustainable and equitable future.

During this program, the group gathered in a classroom and teaching kitchen at Auerfarm in Bloomfield, just minutes from Hartford. Program faculty member and College of Agriculture, Health and Natural Resources (CAHNR) Extension educator Jennifer Cushman says the property was gifted to the Connecticut 4-H Development Fund in 1976, and since then, UConn 4-H has had a strong presence on the farm.

"Lots of animals and gardens, there's an apple orchard and blueberries, which we got to pick yesterday. There is a lot of great agricultural teaching space," says Cushman. "These youth are engaged as UConn 4-H program participants this week."

UConn faculty from multiple disciplines and departments across the University, from CAHNR and the College of Liberal Arts and Sciences to the Office of Outreach and Engagement, are involved in the program.

The goal is to introduce kids who may not have the opportunity to experience a space like Auerfarm and get them to think about where our food comes from, what types of food they eat, and how they get that food.

Days are structured so they spend time in the teaching kitchen, learning how to plan and prepare their meals, from smoothies to guacamole, hummus, and sandwiches. They are having fun while building life skills.

"I'm from Hartford and so are these kids," says Drew Nielsen '23 (CLAS), a 2023 SCFS fellow. "I'd like to teach there and be a part of the community that helped me grow up. This experience has given me so many ideas about ways to build this social awareness into other areas of their education."

(Adobe Stock)

Agriculture Contributes $4 Billion to State Economy, Report Shows

Connecticut's agricultural sector contributes $4 billion to the state economy and provides 31,000 jobs, according to a September 2024 report released by UConn's College of Agriculture, Health and Natural Resources, the state Department of Agriculture, Farm Credit East, and the Connecticut Center for Economic Analysis.

"The numbers are significant and it's important to recognize [agriculture's] proper placement in the state economy," says Rigoberto Lopez, professor of agricultural and resource economics.

In addition to significant contributions in money and jobs, "agriculture provides significant ecosystem services and preserves the state's working landscape — contributions that can't be readily quantified. No matter how you measure it — agriculture matters to Connecticut," Lopez adds.

The report demonstrates that, despite challenges posed by climate change and the COVID-19 pandemic, the agriculture sector continues to grow.

The fastest-growing industries in Connecticut are its greenhouse operations and value-added products, like dairy and meat processing.

Connecticut does not compete with large agricultural states, like those in the Midwest, in terms of big crops like wheat or corn. Instead, most of the state's agriculture focuses on what are considered "specialty crops" by the FDA like vegetables, fruit, and melons, as well as ornamental crops.

The state also has a robust aquatic farming industry which contributed $33.5 million and 500 jobs in 2022, according to the report.

"Agriculture is part of the past, present, and future of Connecticut and its flagship university — UConn," says CAHNR Dean Indrajeet Chaubey.

20 Years in, Land Use Academy Programs Remain Vital

The Land Use Academy, an Extension program in UConn's Center for Land Use Education and Research (CLEAR), provides land-use decision-makers in Connecticut with practical education. The 20-year-old program teaches communities to balance land-use policies in a sustainable way. As populations increase and tensions persist between development and the environment, these programs are more important now than ever.

"The biggest issue or crisis we are facing is the lack of comprehensive, systemic planning, which leads to sprawl, overdevelopment, and otherwise inefficient land use development patterns," says Renata Bertotti, an assistant Extension educator who leads the academy. "We have not paid sufficient attention to our existing buildings and infrastructure and continue to fund development in greenfields instead of prioritizing — through planning, policy, and investment — development where we already have existing infrastructure."

She saw the development versus environmental pressure firsthand working in Meriden, Newington, and Manchester, and says the Land Use Academy is important and timely.

"We have unprecedented housing pressure along with climate change, and both are big issues," Bertotti says. "The federal government has allocated significant moneys for both, making decisions harder for municipal officials. Communities have to plan ahead of time for development, so that it's provided and intensified where it makes sense."

Land-use planning includes discussions on development use where infrastructure already exists, instead of developing greenfields. Municipal staff and volunteers who serve on boards and commissions want to learn how to be proactive in their communities, and that's where the training comes in.

All land-use commissioners are required to have four continuing education credits every four years and many participate in the Land Use Academy to fulfill the requirement. One credit must be in affordable housing and the other three can come from a variety of topics.

"Land-use training is required, and commissioners are clamoring for it," says Dave Dickson, the director of CLEAR. "We offered an advanced training series, and over 365 people signed up, while additional people are accessing recordings, too."

The training offers best practices and gives decision-makers tools and resources to implement and regulate plans. Land-use attorneys, zoning staff, and volunteers also attend the classes.

clear.uconn.edu

clear.uconn.edu/lua

Dave Dickson, director of UConn CLEAR. (Jason Sheldon/ UConn Photo)

Public Policy and Assistance

As part of our land-grant mission, UConn is dedicated to bettering the lives of the general public, through efforts such as dedicated centers and institutes that conduct vital research to inform policies impacting their daily lives and free law clinics that assist individuals with legal issues.

CONNECTICUT TRANSPORTATION INSTITUTE (CTI)

Within the UConn College of Engineering, CTI serves as a focal point for transportation-related research at the University and training throughout the state. The Institute's core programs — the Connecticut Advanced Pavement Laboratory, the Connecticut Transportation Safety Research Center, and the Training and Technical Assistance Center — serve to advance the maintenance and enhancement of transportation systems and safety, with a particular focus on Connecticut's current and future needs. While each of CTI's programs has a unique mission, they work in tandem to promote innovative research and training to provide state-of-the-art information on current trends and practices.

cti.uconn.edu

CONNECTICUT TRANSPORTATION SAFETY RESEARCH CENTER (CTSRC)

Part of the Connecticut Transportation Institute, CTSRC supports the state Department of Transportation in developing and maintaining a state-of-the-art crash data entry, collection, and safety analysis system. The Center seeks to develop efficient tools to collect and analyze crash data; track, document, and research safety improvements and needs in the state; research and develop outreach programs to target Connecticut-specific or other identified safety concerns; develop custom training and early intervention programs to assist law enforcement in collecting uniform, timely, and complete crash data; and conduct transportation safety research that has state, national, and global implications and applications.

ctsrc.uconn.edu

NANCY A. HUMPHREYS INSTITUTE FOR POLITICAL SOCIAL WORK

Founded in 1995 by the late former UConn School of Social Work Dean Nancy A. Humphreys, the Nancy A. Humphreys Institute for Political Social Work works to increase the political participation and power of social workers and the communities they serve, so public policy reflects the profession's values and commitment to social justice. In addition to producing research related to political participation and voting as a social determinant of health, the annual Campaign School for Social Workers has trained more than 3,000 students, social workers, and leaders on how to lead in policy and politics. The Institute co-founded the National Social Work Voter Mobilization Campaign, which works to integrate nonpartisan voter engagement into social work education and practice.

socialwork.uconn.edu/humphreys-institute

UConn School of Law Clinics

TAX CLINIC

The clinic provides free legal help to low-income taxpayers with tax problems involving the Internal Revenue Service or the state Department of Revenue Services. Law students enrolled in the clinic work with clinic faculty to represent more than 100 clients each year. The clinic can help taxpayers who meet income guidelines and are experiencing problems with tax refunds, tax audits, back taxes, and United States Tax Court petitions. While the Tax Clinic does not help people prepare and file tax returns, it can refer clients to free nonprofit services that may be able to help them.

law.uconn.edu/academics/clinics-experiential-education/tax-clinic/

CRIMINAL DEFENSE CLINIC

The Criminal Defense Clinic has represented indigent criminal defendants in Connecticut state and federal courts for more than 50 years. Students enrolled in the clinic represent individuals facing criminal charges in Connecticut Superior Court, and many of the clinic's more than 400 alumni have become leading criminal defense lawyers, prosecutors, judges, and other prominent members of the Connecticut Bar.

law.uconn.edu/academics/clinics-experiential-education/criminal-defense-clinic/

HOUSING AND EVICTION DEFENSE CLINIC

This clinic provides free legal assistance to certain tenants in cases of eviction or loss of a housing subsidy. Tenants who face eviction without legal assistance are twice as likely as tenants who have a lawyer to lose their homes in a removal order, according to a study by the Connecticut Fair Housing Center and the Hartford Data Collaborative. Yet only 7% of renters in eviction cases in Connecticut have legal assistance. The clinic, funded in part by the Connecticut Fair Housing Center with funds awarded by the U.S. Department of Housing and Urban Development, was established in 2022 to address this disparity.

s.uconn.edu/housingclinic

ASYLUM AND HUMAN RIGHTS CLINIC

This clinic represents clients who have fled persecution or torture in their home countries and seek refuge in the United States. Its clients include people from all parts of the world who face persecution because of their political opinion, religion, race or ethnicity, gender, sexual orientation, or family ties. Students handle every aspect of representation in cases that determine whether a client will be granted asylum or face deportation. Since its founding in 2002, the clinic has handled 179 asylum cases to completion. In 168 of those cases, the clinic's clients, and in many cases additional members of their families, were granted asylum or other forms of relief from removal, enabling them to build new lives in safety and freedom.

law.uconn.edu/academics/clinics-experiential-education/asylum-human-rights-clinic/

PARTNERSHIP CLINICS

The School of Law serves various constituencies through partnership clinics in collaboration with various partner agencies and organizations. They include the Child Advocacy Clinic with the Center for Children's Advocacy, Criminal Defense Appellate Clinic with the Connecticut Division of Public Defender Services, Disability Rights Clinic with Disability Rights Connecticut, Elder Law Clinic, Environmental Law Clinic with Save the Sound, United States Attorney's Clinic with the U.S. Attorney's Office for the District of Connecticut, and Veterans Benefits Advocacy Clinic with the Connecticut Veterans Legal Center.

law.uconn.edu/academics/clinics-experiential-education/partnership-clinics/

(Getty Images)

Conference Connects Lawmakers, Scientists in Unified Mission to Bolster Connecticut

In January and December 2024, state policymakers and researchers from Connecticut institutions connected at daylong conferences held at the Legislative Office Building in Hartford as part of "Moving Beyond Implications: Research into Policy."

Organized by Kerri Raissian, an associate professor in UConn's School of Public Policy; state Rep. Jaime Foster, whose 57th District encompasses East Windsor, Ellington, and part of Vernon; and state Rep. Dominique Johnson, whose 143rd District encompasses Norwalk and Westport, the conference was designed to connect policymakers with the researchers working on issues affecting the state such as extreme rainfall trends, clean indoor air in schools, and the success of overdose prevention centers. The goal of the meetings was to encourage change, using science to influence law.

"Since I've been at the Capitol, I have noticed there are challenges in the way legislators talk about the state of science or understand the state of science," says Foster '12 (CAHNR), '14 MS, '17 Ph.D., a three-time Husky who also did her post-doc work at UConn in 2018 and now is a research scientist. "The biggest obstacle is that science gets summarized and delivered through a game of telephone: A scientist publishes their work in a journal that's behind a paywall, then someone at the Capitol pays for the article or worse, they just read the abstract. They summarize it for someone else, who summarizes it for someone else, each time making it more lay but perhaps more inaccurate."

Sponsored by UConn's Institute for Collaboration on Health, Intervention, and Policy (InCHIP) and the Connecticut Scholars Strategy Network, organizers plan to continue holding the event annually.

Center for Voting Technology Conducts Comprehensive Assessment of New Connecticut Voting Machines

Before upgrading 2,700 voting tabulators statewide with new, state-of-the-art machines, Connecticut's Secretary of the State Stephanie Thomas asked UConn's Voting Technology Research (VoTeR) Center, part of the College of Engineering, to test multiple tabulators for reliability and evaluate which models are least prone to cyberattacks.

Since 2006, members of the VoTeR Center have strived to assess the security and dependability of electronic voting equipment and develop new techniques for auditing the results of elections.

"For this evaluation, the VoTeR Center devised and executed testing procedures meant to assess the resilience of potential tabulators and the ecosystem in which they operate against adversarial attacks," explains Laurent Michel, technical director of the VoTeR Center and professor of computer science and engineering. "White-hat ethical hacking of this type is meant to find weaknesses in the equipment, or the processes election officials rely on to program, execute, and tabulate results statewide."

Over several weeks, the VoTeR team worked to evaluate potential new tabulators on the basis of cybersecurity guarantees, support for best-practice election audits, and compliance with the Voluntary Voting System Guidelines set by the U.S. Election Assistance Commission. All findings inform officials on the ideal processes that should be adopted to conduct elections with secure tabulators, Michel says.

Ultimately, the VoTeR team shared their evaluations with Thomas and the selection committee, and the state began purchasing the equipment, which was distributed to some towns before the general election, with the rest being distributed in 2025.

voter.engr.uconn.edu

Researchers Aim to Predict the Probability of Concrete Foundation Failure in Connecticut Homes

In north-central and northeastern Connecticut as well as south-central Massachusetts, tens of thousands of homes built between 1983 and 2015 are potentially sitting atop faulty concrete foundations.

With the support of almost $7 million in federal grants from the National Institute of Standards and Technology, a team from the UConn College of Engineering is working to better understand the effects of the concrete-degrading mineral pyrrhotite. When exposed to oxygen and water, pyrrhotite expands and triggers additional reactions inside the concrete, which causes a slow deterioration of a home's foundation.

"With the increasing use of concrete over the last decades, sources of good quality aggregates are depleting," says Kay Wille, associate professor of materials science and engineering and civil and environmental engineering. "But as we expand our quarries to crush more aggregates to make more concrete, we're going to find other aggregates of potentially lower quality."

In the widespread "crumbling foundations" case, contractors used a concrete aggregate from a quarry in Willington not knowing it was embedded with pyrrhotite. Cracking can take 10 to 30 years to appear, as the foundation becomes structurally unsound and the cost to replace it is typically well in excess of $100,000.

While the State of Connecticut offers some reimbursement funds, homeowners insurance won't cover the fix, which involves lifting the house, removing the old foundation, replacing the foundation, and securing the home to its new foundation.

Wille, who became involved in studying the crumbling concrete problem in 2015, is a member and principal investigator of UConn's Crumbling Concrete Research and Testing team. With the support of the latest grant, worth $4 million, the team is now working on five areas of focus, including sampling and testing, risk assessment, and mitigation strategies.

Researchers will analyze more than 450 samples taken from homes with pyrrhotite detected in the foundation. The results help predict the probability of if — and when — a home's foundation will fail.

crumblingconcrete.engr.uconn.edu

(Contributed Photo)

Sustainability and the Environment

Among the top 10 most sustainable universities in the U.S. as ranked by GreenMetric, UConn's focus on sustainability and the environment begins on our campuses and then extends from local communities to the globe.

CONNECTICUT SEA GRANT

Connecticut Sea Grant is a national network comprising 34 university-based and consortium programs and The Sea Grant Collection housed at the NOAA Central Library. Sea Grant programs are based mainly at flagship universities in U.S. coastal and Great Lakes states and territories. The National Sea Grant College Program encourages the wise stewardship of our marine resources through research, education, outreach, and technology transfer. The program is focused on making the United States the world leader in marine research and the sustainable development of marine resources. Connecticut Sea Grant is funded principally through the National Oceanic and Atmospheric Administration, with matching funds from the State of Connecticut, through the University of Connecticut. The program has three foci: research, outreach, and education.

seagrant.uconn.edu | **seagrant@uconn.edu**

CONNECTICUT INSTITUTE FOR RESILIENCE AND CLIMATE ADAPTATION (CIRCA)

The mission of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is to increase the resilience and sustainability of communities vulnerable to the growing impacts of climate change on the natural, built, and human environments. CIRCA is a multidisciplinary center of excellence that brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to problems arising as a result of a changing climate.

The Institute helps coastal and inland floodplain communities in Connecticut and throughout the Northeast better adapt to changes in climate and also make their human-built infrastructure more resilient while protecting valuable ecosystems and the services they offer to human society (food, clean air and water, and energy). The Institute combines the world-class research capabilities of UConn and the progressive policies and practical regulatory experience of the state Department of Energy and Environmental Protection to translate sound scientific research to actions that can ensure the resilience and sustainability of both the built and natural environments of the coast and watersheds of Connecticut.

circa.uconn.edu | **circa@uconn.edu**

(Adobe Stock)

CONNECTICUT INSTITUTE OF WATER RESOURCES (CTIWR)

The mission of the Connecticut Institute of Water Resources (CTIWR) is to collaborate with and serve all colleges and universities in the state to resolve state and regional water-related problems and provide a strong connection between water resource managers and the academic community, in addition to sharing the results of water resources research and other information with the general public. CTIWR's mission is stipulated by the federal Water Resources Research Act and involves two programmatic responsibilities. The first is to plan, conduct, and otherwise arrange for competent research that fosters the entry of new research scientists into the water resources fields; the training and education of future water scientists, engineers, and technicians; the preliminary exploration of new ideas that address water problems or expand understanding of water and water-related phenomenon; and the dissemination of research results to water managers and the public. The second responsibility is to cooperate closely with other colleges and universities in Connecticut that have demonstrated capabilities for research information dissemination and graduate training to develop a statewide program designed to resolve state and regional water and related land problems.

ctiwr.uconn.edu | **michael.dietz@uconn.edu**

CENTER FOR LAND USE EDUCATION AND RESEARCH (CLEAR)

The mission of the Center for Land Use Education and Research (CLEAR) is to provide information and assistance to land-use decision-makers and other audiences in support of better land-use decisions, healthier natural resources, and more resilient communities. CLEAR is a partnership between the Department of Extension and the Department of Natural Resources and the Environment — two units of the College of Agriculture, Health and Natural Resources (CAHNR) — and the Connecticut Sea Grant Program. CLEAR became an official UConn center in 2002 but is built on a 25-year track record of award-winning programs focused on the relationship of natural resource protection to land-use planning and management. CLEAR research, outreach, and training programs address the overlapping issues of water management, land-use planning, climate resiliency, and geospatial (mapping) technology. CLEAR receives foundational support from CAHNR and the Connecticut Sea Grant Program, obtaining the other half of its support through state, federal, and private grants.

clear.uconn.edu | **clear@uconn.edu**

(Contributed Photo)

UConn, EPA Launch Regional Environmental Justice Center

A multidisciplinary team of researchers at UConn in fall 2024 launched the Environmental Justice Thriving Community Technical Assistance Center with a five-year, $10 million grant from the Environmental Protection Agency.

The center will benefit municipalities and recognized tribes in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont, offering assistance navigating the federal grant process and identifying funding opportunities as the region embraces evolving environmental challenges.

"As Connecticut's flagship university, UConn takes pride in service to our communities and helping to prepare them for the environmental challenges they face in the present and the future," says Pamir Alpay, UConn vice president for research, innovation, and entrepreneurship.

UConn won the grant through a competitive process and is well-positioned to lead the center thanks to the expertise of faculty working in various areas related to environmental justice and with existing connections with community organizations.

"We have a very large group of talented faculty and researchers who have been working on environment-related projects and a lot of them have an environmental justice focus as well," says Carolyn A. Lin, a professor in the Department of Communication who leads the team as the director.

Environmental justice highlights that certain communities, typically lower-income and communities of color, are more likely to be at risk of suffering from environmental harms like pollution and vulnerability to climate change-related impacts like flooding.

Community organizations will be able to submit requests for free support with tasks like needs assessment, identifying funding sources, grant preparation, grant applications, and grant management.

"The only purpose of our center is to serve the needs of communities across New England," Lin says. "We have a very strong commitment to pulling together any kind of resources we can and building coalitions with communities and state governments and tribal nations. Because if you unite, you are much bigger and much stronger in what you can do."

environmental-justice.program.uconn.edu

environmental-justice@uconn.edu

From left, Tilak Subrahmanian, vice president of energy efficiency and electric mobility for Eversource Energy; Interim Associate Vice President of Facilities Operations Stan Nolan; UConn President Radenka Maric; and Penni McLean-Conner, executive vice president of customer experience and energy strategy for Eversource Energy, sign a memorandum of understanding between UConn and Eversource during the Sustainable Clean Energy Summit in the Student Union Theater on Sept. 23, 2024. (Sydney Herdle/UConn Photo)

UConn and Eversource Host Third Annual Sustainable Clean Energy Summit

Electric grid decarbonization and emerging technologies in clean energy were the focus of the 2024 Sustainable Clean Energy Summit at UConn Storrs, which served as the featured event of Connecticut's first-ever Sustainability and Resiliency Week.

A keynote address by Gene Rodrigues, assistant secretary for electricity at the U.S. Department of Energy, kicked off the event, while academics, state leaders, and energy industry experts led panel discussions on various clean energy topics.

In addition to those discussions, Eversource and UConn celebrated recent federal funding from the U.S. Department of Energy for the "Power Up New England" multistate proposal, allowing Eversource to commit $4 million to establish the Connecticut Institute for Sustainable Energy at UConn Avery Point.

The institute will help to expand the sustainable energy workforce in the state and region through scholarships, real-world engagement on offshore wind projects, and certificate programs relating to offshore wind, with a particular focus on engagement with individuals from underrepresented and disadvantaged backgrounds.

Eversource and UConn signed a three-year memorandum of understanding during the summit to advance the University's goal of carbon neutrality by 2030, moving the UConn campus from a focus on LED lighting energy-saving projects to measures that involve studies, building controls, HVAC equipment, and other decarbonization or carbon mitigation measures across all UConn campuses and UConn Health.

Four student-led finalist teams from the Eversource-sponsored Clean Energy and Sustainability Innovation Program presented their innovative research ideas to reduce carbon footprints and prepare for climate extremes at the local, state, and regional levels, with one finalist team receiving funding and mentorship to bring their idea to life over the next year.

(Adobe Stock)

CIRCA: Serving Connecticut's Coastal Communities and Beyond

Between scorching summers and unprecedented storms, the consequences of climate change have crashed down on Connecticut causing policymakers, urban planners, and resource managers to make decisions with new threats in mind: more extreme weather events, heat, and sea level rise.

The latter is something James O'Donnell, professor of marine sciences and director of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) at UConn Avery Point, knows a lot about as a physical oceanographer who focuses on circulation and mixing in the ocean.

In 2018, the Connecticut legislature passed a bill urging UConn and the state Department of Energy and Environmental Protection to develop guidelines advising state leaders on how to plan for sea level rise.

O'Donnell led the initiative to predict Connecticut's future sea level rise and found that Connecticut's potential sea level rise by the year 2050 could vary between 6 inches and 25 inches. He successfully advocated that towns plan for a 20-inch sea level rise by 2050, as it's far better to have built too high than not high enough.

O'Donnell says electricity substations and water treatment plants are two coastal facilities that need protection from rising tides, and rising sea levels and storms will surge into Connecticut's rivers, potentially causing flooding all around the state.

Because of this, CIRCA teams are carrying out resilience projects in cities like Danbury and Hartford.

Since CIRCA's inception in 2014, O'Donnell and other researchers have been involved in various resilience projects around Connecticut. The CIRCA-led initiative Resilient Connecticut focuses on vulnerable communities in New Haven and Fairfield counties, implementing strategies such as living coastlines and transit-oriented economic development. Now, it is expanding its recommendations to the whole state.

CIRCA researchers have developed tools like the Climate Change Vulnerability Index, a mapping tool to identify areas that are vulnerable to flooding and heat-related impacts of climate change, and the Connecticut Environmental Justice Screening Tool, which allows users to explore the environmental health and socioeconomic conditions of regions across the state.

UConn Researchers Help Coastal Towns Prepare for the Next Storm in a Changing Climate

Hurricane Sandy brought devastation to the East Coast in 2012 and thanks to the destabilizing effects of the climate crisis, coupled with sea level rise, record-breaking disasters are quickly becoming normal occurrences.

Communities need to build resilience quickly, and UConn researchers are working on a metric to help coastal areas prioritize the measures on which to focus.

Wei Zhang, an associate professor in UConn's Department of Civil and Environmental Engineering, leads the Damage Modeling and Disaster Mitigation Lab and is affiliated with the Connecticut Institute for Resilience and Climate Adaptation (CIRCA).

"My research covers a large spectrum, focusing on the uncertainties of how natural hazards interact with different kinds of infrastructures like bridges, buildings, low residential buildings, and electrical infrastructure," Zhang says.

Zhang explains that it's important for people to know if they are likely to be without power or water, or whether they'll be able to use roads to get supplies or go to the hospital. This information is vital for planning and shoring up community infrastructure and individual households.

To study these details, Zhang and his team created a "livability index" that incorporates factors influencing the lives of members of the community. The creation of the index relied on researchers from many different areas, including geography, statistics, computer science, and electrical engineering.

Together, they try to account for what will happen if another superstorm were to impact a community, except the model is calibrated to the more extreme climatic conditions projected for 2100.

Towns can use this information in the face of a future of more intense weather, Zhang says, to decide which projects to prioritize.

Where to Start? UConn Researchers Develop Holistic Tool to Help Plan Urban Vacant Lots

Vacant lots, though overlooked or seen as eyesores by many, represent opportunities.

UConn College of Agriculture, Health and Natural Resources doctoral researcher Pan Zhang and assistant professor Sohyun Park, both in the Department of Plant Science and Landscape Architecture, have created a framework to help cities and community members assess and prioritize which lots will have the biggest impact — for everyone — if they are repurposed.

Zhang says the project started in 2018 as part of a class during which students were tasked by Hartford's blight remediation team and community stakeholders with evaluating and assessing city-owned vacant lots.

The city wanted a framework to manage the lots and pick sites that would be most suitable and successful for regeneration. Zhang partnered with Park to continue developing the framework after the semester ended in a project that eventually became the Vacant Land Assessment System (VLAS).

Using publicly available information and geographic information systems tools, Zhang and Park analyzed features of the properties, geographical distribution, and potential strategies for reclaiming the vacant lots. They analyzed the characteristics of the lots and organized them into four types. Reuse programs were designed for each.

"We consulted with the city about which sites to work on in North Hartford. Then we worked with the planners, neighborhood NGOs, and stakeholders to try to apply those sustainable placemaking strategies," says Zhang.

Zhang says the VLAS can be easily used by planners in any municipality.

"We want to greenify those lands that have been disregarded and underestimated in the city setting. The existing native trees in those vacant lots might have more potential than people think," says Park. "Actively greenifying those lands helps the community's health and well-being in the long term and may be able to help break the cycle of poverty and violence that is prevalent in those areas."

From left, SmartBuildings CT program members Andre Jin, Eric Venables, Amy Thompson, Mohammed Albayati, and Julia DeOliveira pose for a photo in the Innovation Partnership Building at UConn Tech Park on Dec. 9, 2022. (Sydney Herdle/UConn Photo)

UConn Professor, Students Help Connecticut Towns Make Smart Energy Choices With Smart Buildings Program

Amy Thompson is always teaching, even when she's not in the classroom.

As a professor-in-residence at UConn in the electrical and computer engineering department, she helps guide students in the classroom. But a large part of her work is educating Connecticut municipal leaders and school administrators on how readily available technologies can improve energy efficiency and sustainability efforts.

"Our program is an example of technology transfer and knowledge transfer. It's a great way to support Connecticut," she says.

Thompson came to UConn in 2017 and brought with her a growing program she created called SmartBuildings CT, which is supported by Energize CT.

"Our program is really a technical support, education, and training program specifically to support communities and school districts in Connecticut," Thompson explains. "We create an energy portfolio for each of the towns and each of the public school districts in Connecticut."

SmartBuildings CT has worked with more than 70 towns, school districts, and other agencies. More than 2,885 buildings in the state have been benchmarked through the program.

Through the federal Energy Star program, the U.S. Environmental Protection Agency offers a free tool called Portfolio Manager, which allows anyone to measure and analyze patterns of energy consumption. But setting up an energy portfolio can be an intensive process.

That's where SmartBuildings CT comes in.

Thompson also provides training to municipal officials so they can maintain their portfolios and continues to assist the towns even after they're set up, troubleshooting any problems they might encounter and offering help analyzing and interpreting reports and energy use data.

She is currently working with the state Department of Energy and Environmental Protection to pilot an expansion of SmartBuildings CT for privately owned commercial and industrial buildings.

ccat.us/smartbuildingsct

Since this story was published, Thompson has departed UConn for the Connecticut Center for Advanced Technology.

Revived Give and Go Program Helps People and Planet

You never think you have too much stuff until it's time to move. Thousands of UConn students faced that problem while moving out of residence halls last May — but the Give and Go program was there to help.

Give and Go allows students to donate gently used goods at drop-off points throughout campus. Items are then sorted and given to community organizations that help those in need. The program diverts waste from incineration, provides an easy way for students to donate items, and supports local residents.

Give and Go began in 2009 and ran until the pandemic forced it to pause. The program diverted more than 40 tons of donations over the course of a decade. Recognizing the need for it, UConn Community Outreach, the Office of Sustainability, and Residential Life revived it in 2024.

Volunteers collected, sorted, and delivered 8,359.6 pounds of donations that were collected. There were over 300 volunteer shifts from May 1–6.

Besides ferrying donations between residence halls and the central collection center, volunteers also sorted donations based on their condition and the needs of community partners.

Recipients included Opportunity Works Connecticut in Vernon, Covenant Soup Kitchen in Windham, Goodwill Industries, Journey Home in West Hartford, Windham Area Interfaith Ministry, Midnight Run, Willow House in Mansfield, and Holy Family Home and Shelter in Windham.

"Give and Go is so valuable to Windham Area Interfaith Ministry because we serve people that are in the ALICE population — that's Asset-Limited, Income Constrained, and Employed," says Susan Hunter, ministry executive director.

communityoutreach.uconn.edu/giveandgo

uconn.co.giveandgo@gmail.com

Sydney Seldon '25 (CAHNR, CLAS) helps load a TV donated during Give and Go into a truck bringing donations to community organizations. (Contributed Photo)

Health and Wellness

The success of Connecticut's communities starts with healthy residents. At UConn, programs aimed at improving public health span disciplines.

HEALTH EQUITY CLINIC AT UCONN SCHOOL OF LAW

The Health Equity Clinic at UConn School of Law is a medical-legal partnership dedicated to addressing the core social determinants of health that are the critical drivers of health outcomes for the Hartford region's most vulnerable patients. The clinic seeks to confront health inequities and outcome disparities through joint medical-legal advocacy and interdisciplinary interventions. Beginning in January 2025, law students are slated to work in Hartford Hospital primary and specialty care clinics with medical staff to see patients and conduct intakes and interviews of clients. Students will identify and address systemic policy issues that affect the core population seen by the clinic.

law.uconn.edu/academics/clinics-experiential-education/health-equity-clinic/

(Adobe Stock)

CONNECTICUT MISSION OF MERCY (CT MOM)

Each year since the 2008 inception of the annual Connecticut Mission of Mercy (CT MOM) Free Dental Clinic, UConn School of Dental Medicine students, faculty, staff, and residents and School of Medicine Urban Service Track students join with the Connecticut Foundation for Dental Outreach and hundreds of volunteers to provide free oral health care to underserved and uninsured individuals across the state. Hosted at the UConn School of Dental Medicine in 2022, the two-day clinic is first-come, first-served and provides a full range of dental services including exams, X-rays, cleanings, extractions, root canals, and more to typically more than 1,000 patients per year. CT MOM estimated the total value of donated care provided at the 2024 event at $1,195.757.11.

cfdo.org/ct-mom | contact@cfdo.org

UCONN HEALTH COMMUNITY PROGRAMS AND SUPPORT GROUPS

UConn Health is committed to providing a place for individuals to share common concerns and emotional support, as well as to exchange information, and offers the following: Diabetes Self-Management Education Program, in vitro fertilization information sessions, kidney disease education, MotherToBaby CT, Parenting Program, Planning for Pregnancy classes, and a virtual community education series. UConn Health also hosts support groups for caregivers of those with dementia, Huntington's disease, and Parkinson's disease and support groups for those with brain aneurysms, multiple myeloma, multiple sclerosis, spasmodic dysphonia, and stroke survivors.

health.uconn.edu/about/community-programs

UConn School of Medicine's Department of Public Health Sciences faculty, students, and administrators gathered at the Connecticut Public Health Association Annual Conference. (Contributed Photo)

UConn Health Takes Center Stage at Connecticut Public Health Association Annual Conference

Linda Sprague Martinez, a professor in the departments of Medicine and Public Health Sciences at UConn School of Medicine and director of the Health Disparities Institute (HDI) at UConn Health, was the keynote speaker at the Connecticut Public Health Association annual conference held in Plantsville in November 2024. The conference theme was "Building Healthier Communities Together: Centering on Community for Changemaking."

Sprague Martinez's address focused on the importance of community engagement and participatory research for building healthy communities and advancing health equity. Sprague Martinez shared core challenges to community engagement and strategies for overcoming them through systems change.

"People in communities know what they need to be healthy," she said.

To find a way forward, Sprague Martinez said she believes public health professionals need to listen better and learn from people in the communities they serve, especially when it comes to developing interventions. She discussed a collaboration between HDI and the state Commission on Racial Equity for Public Health to launch a community-based research project recruiting citizens from across the state as community research advisors and faculty to advance health equity.

The Department of Public Health Sciences served as a key sponsor of the conference with associate professor Stacey Brown, co-program director of the Program in Applied Public Health Sciences, also delivering remarks. Brown shared her insights about community-engaged research and its role in creating meaningful change.

health.uconn.edu/health-disparities | uconnhdi@uchc.edu

UConn Husky Nutrition & Sport recently received $4.9 million in funding from the USDA for the next three years. (UConn HNS Photo)

$4.9M in Federal Funding Awarded to Husky Nutrition and Sport

Since the mid-1990s, funding from the U.S. Department of Agriculture has been allocated to the State of Connecticut and distributed among agencies that provide programs focused on nutrition and physical activity education to people eligible for the Supplemental Nutrition Assistant Program (SNAP-Ed).

UConn is home to one such agency, UConn Husky Nutrition and Sport, which recently received $4.9 million from the USDA for the next three years.

Housed in the Neag School of Education, UConn Husky Nutrition and Sport (HNS) engages in nutrition and physical activity education alongside youth, adult caregivers of children, and adults eligible to receive SNAP-Ed. Collaborative partnerships and educational programs are facilitated within the city of Hartford and across the state.

Participating University stakeholders work across disciplines and communities as part of collaborative partnerships and direct education programs. The organization runs a variety of programs that each serve hundreds annually.

With more than 40 staff and student employees on the team, UConn HNS continuously strives to strengthen the SNAP-Ed workforce in Connecticut.

In summer 2024, UConn HNS led nutrition and physical activity education efforts with 18 partner sites in five towns. These partnerships allowed nearly 1,100 participants, ages 4 to 18, to take part in 240 direct education sessions.

An expansion of partnerships is on the horizon for UConn HNS, with a mixture of educational programs focused on increasing healthy eating and physical activity. UConn HNS also continues to grow its consulting efforts, working with partners to provide professional development workshops, support evaluation processes, and co-design social marketing campaigns.

huskynutritionsport.education.uconn.edu | uconnhns@uconn.edu

HUSKY NUTRITION AND SPORT PROGRAMS SERVE THOUSANDS EACH YEAR

HUSKY READS

600

Pre-K Students Across 15 Early Childhood Education Centers

HUSKY NUTRITION ON-THE-GO

200

Caregivers of Pre-K Students

HUSKY SPORT @ WISH SCHOOL

385

Fred D. Wish Museum School Students, Staff, and Caregivers

HUSKY NUTRITION & SPORT CLINICS

800+

Youth Ages 5–17 From More Than 15 Community Organizations, After-School and Weekend Programs, and Summer Camps

HUSKY NUTRITION WORKSHOPS

500

Adults at More Than 15 Early Childhood Education Centers, Schools, Senior Centers, Community Organizations, and Libraries

HUSKY SMART SHOPPING

200+

Shoppers at Three Community Organizations and Food Retailers

Chief of Vascular Surgery Dr. Kwame Amankwah teaching Covenant Prep middle-schoolers about the human body's anatomy at the high-tech Virtual Anatomy Lab of UConn School of Medicine on Nov. 25, 2024. (Tina Encarnacion/UConn Health Photo)

Intellectual Field Day Teaches Youth About Medicine

In fall 2024, Chief of UConn Health's Division of Vascular Surgery and Endovascular Surgery Dr. Kwame Amankwah began volunteering to help the young male students at Hartford's Covenant Preparatory School achieve greater health care literacy as part of the school's new Intellectual Field Day initiative on Fridays.

"It's been fun," says Amankwah, who has long hoped to work with Connecticut youth to instill greater health literacy. "I am so impressed and proud of these successful, young men growing up in the city of Hartford and attending this great school which has a 100% high school graduation rate."

Lessons that generated excitement from the students included one on how to measure pulse and blood pressure and another in which the students had a chance to use simulation surgery technology to learn about Amankwah's work as a vascular surgeon. Students used the technology to repair an aneurysm in a simulated brain, close the brain's dural layer with clips, and suture skin with stitches.

They also visited UConn School of Medicine's Virtual Anatomy Lab (VAL), one of the first VALs in the nation, so they could use the medical school's high-tech Anatomage tables that give a 3D digital, life-size look into what the human body, its anatomy, and its organs look like inside when healthy and when diseased.

"What we do as physicians at UConn is very rewarding. We help others and take care of them. But we also educate patients and the next generation of doctors," says Amankwah, who was exposed to medicine at a young age by his father who was a physician specializing in high-risk obstetrics. "I am very thankful to be able to interact with these young Hartford students and introduce them to a future career option in medicine for their life.

"It's been an exciting time for everyone, and we are honored to be given the opportunity to be part of these young men's education," Amankwah says.

UConn Health medical assistant Maggie Negron works with a patient on a peg test, commonly used to evaluate arm and hand function, with medical assistant Arlene Sanchez pictured in the background. All three speak Spanish. The peg test can be confusing to patients, especially if there's a language barrier. (Tina Encarnacion/UConn Health Photo)

Communication Clears Cultural Hurdles

Already vital in delivering health care, communication has an added importance when dealing with social determinants of health, the factors beyond medical that can affect health and well-being such as socioeconomic, employment, and housing status.

Cultural and language barriers can exacerbate these factors.

The right people in the right setting can help overcome those barriers by communicating effectively, not only by improving the care experience, but also by having patients leave the encounter with a better understanding of their situation.

An example of this is UConn Health's outpatient neurology practice, where patients can have a harrowing diagnosis that, once made, sets them on a lifelong path of trying to slow progression, arranging supportive care and planning services, and, in many cases, seeking resources to help with life's necessities.

Maggie Negron and Izamarie Colón are among several UConn Health medical assistants who are fluent in both English and Spanish.

"It's very difficult to translate things, especially for patients," Colón says. "They might understand a little bit of English, but when it comes to their medical terminology, they don't know how to translate properly."

Medical assistants usually are the first to interact with patients once they leave the waiting room and the ones who often follow up with patients after they leave. Developing a comfort level with patients can open doors to resources that patients could use to overcome social determinants of health that otherwise may not have been communicated.

"One story that stands out involved a patient who was struggling with both health issues and financial instability," Negron says. "After learning about their difficulties with paying bills during a routine checkup, I connected them with our social work team. … Being part of that positive change was incredibly rewarding."

UConn Keeping Air in Connecticut Classrooms Safe

The UConn Indoor Air Quality Initiative received $11.5 million from the State Bond Commission in October 2024 to bring access to low-cost, do-it-yourself "Corsi-Rosenthal" air purifiers to every individual public school classroom in Connecticut.

The funding, part of SAFE-CT: Supplemental Air Filtration for Education Supplemental under the Clean Air Equity Response Program, will allow for the purchase of equipment and materials for the construction and installation of individual classroom air purifiers.

In 2021, UConn launched its cross-campus community service initiative during the pandemic to battle the COVID-19 virus with faculty, students, and staff volunteering to build and donate over 700 of the public health intervention tools to public schools and other community settings like the Veteran's Administration Medical Center.

Around the same time, an elementary school student in Middletown wrote and mailed UConn Health a letter inviting them to her school to help her class build an air purifier device.

Since then, building and testing the air filters has become part of a UConn engineering class curriculum as a public service-learning project.

The UConn Indoor Air Quality Initiative's cross-campus collaborators include UConn Health and its Comprehensive Multiple Sclerosis Center, UConn School of Medicine and its Department of Public Health Sciences, UConn College of Engineering, UConn School of Nursing, Connecticut Area Health Education Center Network, UConn Neag School of Education, and Connecticut Children's Medical Center.

indoorairquality.initiative.uconn.edu | creed@uchc.edu

Mary Holter, a member of the Community Action Task Force and report co-author, discusses study findings at Semilia Cafe in Hartford. (Contributed Photo)

Research Assesses Assets and Challenges for North Hartford Food Environment

Links between eating a balanced diet and overall health are well-established, but for people living in "food swamps" with only fast food and processed food offerings, healthy eating isn't easy.

A UConn study looking at the experiences of women of color in North Hartford proves that fact.

The study was a collaboration between the UConn Department of Allied Health Sciences, the Rudd Center for Food Policy and Health, the UConn School of Medicine, and North Hartford community members.

Researchers identified some key themes in the challenges participants face, such as a lack of access to grocery stores, advertising and marketing that push "junk" food, lack of transportation to access healthier options, unaffordability of fresh produce, impact of junk food on their children's school performance, prominence of alcoholic beverages over healthy alternatives, and the quality of fresh food at local stores.

Participants in the study did identify positive aspects of their food environment, such as the availability of culturally relevant foods for the city's large Caribbean and Hispanic populations, like plantains and yucca. However, participants note this does not fully meet their needs in the absence of other produce.

The team also looked at how policies create food swamps. For example, in Hartford, corner stores and other nongrocery establishments that sell food were coded as grocery stores, giving policymakers an inaccurate picture of food access across the city.

The team plans to replicate this pilot study with a larger sample that includes men and women and looks at the impact of poor nutritional health on students' educational outcomes.

The researchers used a method known as Photovoice for this study. This research method involves study participants taking photos, in this case, of the food environment in their neighborhood, and adding voice notes narrating their experience.

This method empowers participants to engage in citizen science by sharing more detailed and personal information with the researchers.

"Photovoice actually prompts a focus on action," says Kristen Cooksey Stowers, assistant professor in the Department of Allied Health Sciences and senior author on the paper. "Not just engaging lived experience and documenting problems and health inequities, but also keeping the dedication to engage lived experience and community voice when you are carving out and evaluating solutions."

Students from the Urban Service Track/ AHEC Scholars training program at UConn Health contributed for the 14th consecutive year to the Ollie M. Williams Health and Wellness Fair at Thirman Miller Middle School in Hartford. Overseen by UConn Health faculty, students helped administer free health care and screenings, administering the pneumococcal vaccine; providing oral, blood pressure, and blood glucose checks; and educating attendees about asthma triggers, oral hygiene, and the benefits of good nutrition and an active lifestyle.

(Contributed Photos)

Husky Harvest Stamford Bolsters Food Pantry Offerings With New Partnerships, New Initiatives

Since 2022, leaders across the University have begun prioritizing the basic needs of students, opening Husky Harvest food pantries on all campuses thanks to a partnership with Connecticut Foodshare.

But the pantry has been such a success at UConn Stamford that the list of partners and support continues to grow.

The City of Stamford 2024 Community Microgrant Program provided funding to purchase a refrigerator, one with see-through glass doors to allow pantry patrons to easily check what perishables might be on hand. Also, Stop & Shop, a longtime supporter, donated $10,000 in 2024.

An ongoing student project funded by a Spring 2024 Change Grant through the UConn Co-op Legacy Fellowship Program provides kitchen essentials such as pots and pans, can openers, strainers, and utensils to UConn Stamford students. And an Environmental and Social Sustainability Grant from UConn's Office of Sustainability within the Institute of the Environment purchased an indoor hydroponic system, known as a Flex Farm, so the pantry can grow its own microgreens.

What's more, Lori Gresham, a psychological sciences professor, has been creating recipes, posting cooking videos to Instagram, and hosting live virtual cooking classes to teach students how to make dishes with common Husky Harvest ingredients.

Laura Bunyan, sociology associate professor-in-residence who runs Husky Harvest and other initiatives on campus, engages her classes in projects that can help the pantry, such as QR codes to put on shelves and link students to recipes.

huskyharvest.uconn.edu

Jonathan Chambers '28 (CLAS) planting the Flex Farm at UConn Stamford on Sept. 19, 2024. (Sean Flynn/UConn Photo)

Elizabeth "Lizzie" Suschana, 28, in the UConn School of Medicine Class of 2025 from Somers, Connecticut, is a proud Urban Service Track/AHEC Scholar. (Tina Encarnacion/UConn Health Photo)

Urban Service Track Hits $1 Million Milestone

It's $1 million and counting in free community care and education provided by the interprofessional students accepted into the Urban Service Track/AHEC Scholars training program at UConn.

The Urban Service Track is a special, competitive, and interprofessional CT AHEC training program that accepts 60 students each year from UConn's schools of Medicine, Dental Medicine, Social Work, Pharmacy, and Nursing and the Quinnipiac University Physician Assistant Program. The program hit the million-dollar milestone in June 2024.

Since 2007, Urban Service Track scholars have volunteered to provide critical health care access to underserved Connecticut citizens as they train together to be the next generation of well-rounded primary care and health care professionals, running community health fairs and other events and providing free health care screenings, health promotion education, and referrals to dental and medical safety net agencies.

"UConn and its students are the bridge connecting community members to the health care resources and social services they need from right inside their own community," says fourth-year UConn medical student Elizabeth "Lizzie" Suschana from Somers who was honored with a 2024 Urban Service Track Leadership Award for her community service.

Representatives from the Connecticut WSCC Partnership, East Hartford Public Schools, and CDC's Division of Adolescent and School Health gathered at Mayberry Elementary School in East Hartford in April. (Laura Roberts/CT WSCC Photo)

UConn Partnership with East Hartford Public Schools Celebrates First Year

A five-year, $2 million cooperative agreement from the U.S. Centers for Disease Control and Prevention is helping UConn Collaboratory on School and Child Health and the UConn Rudd Center for Food Policy and Health protect and improve the health and well-being of school-age children and adolescents in Connecticut.

The UConn team, led by Sandra Chafouleas and Marlene Schwartz, along with Jessica Koslouski and Kathleen Williamson '13 MA, '17 Ph.D., hit the ground running and formed the Connecticut Whole School, Whole Community, Whole Child (WSCC) Partnership, which supports the implementation of evidence-based policies, practices, programs, and services aligned with the WSCC model.

In its first year, the Partnership provided more than a dozen hours of professional development in East Hartford Public Schools, the school district partner on the project. These hours focused on building foundational knowledge about the WSCC model across the district and guiding the district and school WSCC teams through assessment and action planning activities to begin to strengthen WSCC-aligned practices.

"East Hartford is the perfect partner, as they had already laid much of the groundwork for this project," says Chafouleas, Board of Trustees Distinguished Professor and Ray Neag Professor of School Psychology in the Neag School of Education and co-director of the UConn Collaboratory on School and Child Health. "East Hartford Public Schools has been focusing on health and wellness for 20 years."

In addition to focused collaboration with East Hartford Public Schools, the CT WSCC Partnership also leads statewide efforts to increase implementation of WSCC-aligned policies and practices.

Another significant statewide success of the CT WSCC Partnership's first year was the launch of the WSCC Academy, a free day of training for school and district wellness teams to learn about the WSCC model and tools to strengthen whole child practices in their setting.

ctwholechild.collaboration.uconn.edu

Connecticut Office of Early Childhood Awards $10 Million for Family Support Program

UConn Human Development and Family Sciences associate professors Rachel Chazan Cohen and Caitlin Lombardi are working with the Connecticut Office of Early Childhood to launch a new program, Connecticut Early Years, for families with infants and toddlers.

The $10 million program will focus on child care centers and family child care homes in New Haven and Hartford. Participating programs will be paired with professional consultants experienced in working with families. Individual families will be able to choose whether they participate.

Family consultants will work individually with parents twice a month to determine their unique needs and connect them to appropriate resources.

"There's a range of supports that families might want to support parenting their child," Lombardi says.

In a 2022 survey from the OEC, 47% of respondents with children under 4 years old indicated they used an external child care center, while another 15% opted for a licensed family child care home. These services are especially crucial for working families and single parents.

Over the course of the study, researchers will compare family outcomes from child care locations who received a family consultant with outcomes from those which did not, evaluating factors like parental stress, children's literacy, and access to resources. They hope to see families who receive the intervention accessing more services for mental and physical health, education, and employment.

They also expect positive effects for children's social and emotional well-being and readiness for school. Cohen points out that other interventions of this kind have been shown to significantly boost children's language skills.

"That's where these interventions tend to have their biggest effects, which is really important," she says. "Because if you have an impact on children's socialization and their ability to interact with peers and their parents — if you have an impact on the way they communicate — that sets them up for success down the road."

arclab.hdfs.uconn.edu/connecticut-early-years

UConn Health Students Improving Health Outcomes for Connecticut Citizens

The student-led UConn Health Leaders (UCHL) program won the 2024 Quality and Practice Innovation Award from the Society of General Internal Medicine.

The Quality and Practice Innovation Award recognizes UCHL as a role model practice and applauds it for improving care within the quality domains of safety, effectiveness, patient-centeredness, timeliness, efficiency, and equality. This award also recognizes the UCHL team, composed of general internists and members of both UConn Health and UConn that have successfully developed and implemented an innovative system of practice improvement in ambulatory and inpatient clinical practices.

A partnership between students and faculty at UConn School of Medicine, UCHL was created in 2019 to better address unmet social needs in the community that impact a patient's ability to achieve equitable care.

UCHL has been helping curb patient health inequities by screening patients using iPads in UConn Health's outpatient care waiting rooms and hospital to uncover social determinants of health — nonmedical factors that can influence health outcomes, such as unemployment, food insecurity, or transportation instability — in real time.

For those identified with needs, UCHL's innovative survey automatically populates community partnerships that address those disparities. For example, if someone identifies as food insecure, the survey populates to offer the resource Hands on Hartford, which is a local organization dedicated to addressing this need. Student advocates work to connect the patient with any necessary social resources.

As part of the MDelta curriculum adopted in 2015, all UConn School of Medicine students, along with those School of Dental Medicine Students who opt in, earn a Certificate in Social Determinants of Health and Disparities. Projects completed as part of the certificate program serve Connecticut citizens on the ground and help train future practitioners on how to address barriers to care.

health.uconn.edu/health-leaders

The UConn Health Leaders program leadership team on stage on May 18, 2024, in Boston after accepting the Quality and Practice Innovation Award from the Society of General Internal Medicine. (Contributed Photo)

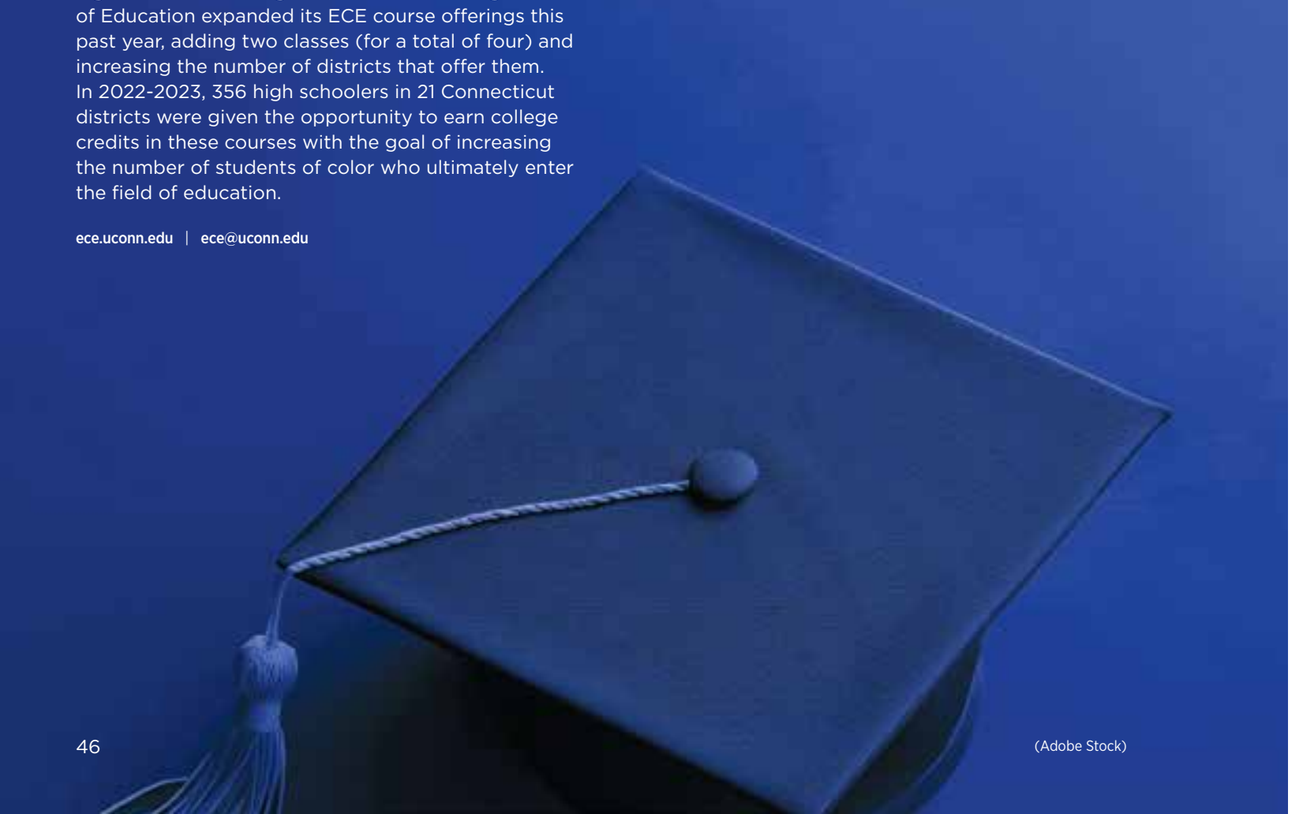
Education

UConn's mission is to promote the health and well-being of Connecticut's citizens through enhancing the social, economic, cultural, and natural environments of the state and beyond. Perhaps the most personal and immediate responsibility is borne by Connecticut's teachers. Nearly every public school district in Connecticut employs a Neag School of Education alum — including the 2025 Connecticut Superintendent of the Year, Christine Carver '91 (ED), '97 MA, '09 Ed.D., and the 2024 Connecticut Teacher of the Year, Kiana Foster-Mauro '20 (ED), '21 MA.

EARLY COLLEGE EXPERIENCE

The oldest and one of the largest concurrent enrollment programs in the United States, Early College Experience offers nearly 100 UConn courses to high school students throughout the state for both high school and college credit. UConn's Neag School of Education expanded its ECE course offerings this past year, adding two classes (for a total of four) and increasing the number of districts that offer them. In 2022-2023, 356 high schoolers in 21 Connecticut districts were given the opportunity to earn college credits in these courses with the goal of increasing the number of students of color who ultimately enter the field of education.

ece.uconn.edu | **ece@uconn.edu**



(Adobe Stock)

From left to right, Leudy Moter '28 (ENG), Elisco Lisncros '28 (CLAS), and Juve Perez '28 (ENG) at the Family Gathering Celebration at Gampel Pavilion on July 19, 2024. (Sean Flynn/UConn Photo)

HARTFORD AND NEW HAVEN PROMISE SCHOLARSHIPS

Promise Scholarships provide financial assistance to high school students who are residents of their city to attend the college of their choosing. More than 300 Promise Scholars at the UConn Storrs campus are supported by a network of their peers and their campus home base, the Center for Access and Postsecondary Success (CAPS). Through CAPS, Promise Scholars form a community and can access guidance and other University services to help them succeed as a student at UConn.

caps.center.uconn.edu

THE RENZULLI CENTER FOR CREATIVITY, GIFTED EDUCATION, AND TALENT DEVELOPMENT

Part of UConn's Neag School of Education, the Renzulli Center for Creativity, Gifted Education, and Talent Development serves as a center of expertise for talent development and creativity. The Center promotes enjoyment, engagement, and enthusiasm for learning in educators and students at all levels and conducts and disseminates research on critical questions of practice related to talent development and gifted education pedagogy.

gifted.uconn.edu | **renzullicenter@uconn.edu**

UCONN SCHOOL OF FINE ARTS & CHARTER OAK CULTURAL CENTER PARTNERSHIP

In the UConn School of Fine Arts & Charter Oak Cultural Center Partnership, Huskies partner with a vibrant community to do the work of social justice through the arts. The Charter Oak Cultural Center is a nonprofit, multicultural arts center committed to offering performances, exhibitions, classes, lectures, cultural programming, and after-school programs for inner city youth. The UConn School of Fine Arts is piloting a service-learning project in which music and art students act as mentors and lesson assistants — supervising homework, hosting dinner, and assisting in the jazz band class.

sfa.uconn.edu/collaborations/charter-oak-cultural-center

THE FINANCIAL LITERACY INNOVATION PROGRAM (FLIP)

Part of UConn's School of Business, FLIP educates historically under-resourced high school students throughout the State of Connecticut on the importance of financial literacy and college/career preparation and readiness. Through interactive learning and exposure to companies and business leaders, students learn the basics and importance of personal finance, budgeting, investing, and saving money. FLIP's partner schools are Bloomfield High School, Bristol Central High School, Bristol Eastern High School, Bulkeley High School, Pathways Academy of Technology and Design, Rockville High School, University High School of Science and Engineering, Weaver High School, and Windham High School.

diversity.business.uconn.edu/flip | **diversity.business@uconn.edu**

Over 100 area high school students who attended the Early College Experience Chemistry Student Lab Day pose for a photo with Michael Kienzler, assistant professor of chemistry at UConn, in the Chemistry Building on May 23, 2024. (Sydney Herdle/UConn Photo)

Neag School Hosts Early College Experience Day for 116 High School Students

At the end of October 2024, the UConn Neag School of Education hosted nine high schools that offer three of its Early College Experience courses in Storrs for a day. The 116 high schoolers in attendance learned more about the University, the Neag School, and potential careers in education and sport management.

"Expanding our Early College Experience courses offered through the Neag School has been a priority for me," Dean Jason G. Irizarry says. "Since 2021-22, we've added new courses, now totaling four. In 2023-24, those courses provided the opportunity to earn college credits to 669 high schoolers in 25 districts. I'm thrilled Neag School faculty and staff organized an ECE Day for some of the students currently enrolled in our courses."

Irizarry kicked off the day's program, welcoming students and teachers from Bristol, East Hampton, Enfield, Farmington, Milford, New Britain, Plainville, and Trumbull. All either teach or take the courses "If You Love It, Teach It," "Contemporary Issues in Sport," or "Introduction to Special Education." The Neag School's fourth ECE course currently offered in high schools is "Health and Education in Urban Communities."

"Neag Day was an invaluable experience for my students," says Molly Anderson, an educator from Jonathan Law High School in Milford. "For many, it was their first chance to explore the UConn campus, engage with a student panel, ask questions, and interact with Neag School students and faculty. The visit sparked an excitement about life after high school, and my students are still talking about it. It's undoubtedly one of the highlights of being part of the Neag School's ECE community."

UConn Departments Collaborate to Enhance Quantum Science Education for Connecticut Students

If you have recently shopped for a new TV, did you wonder what the Q means in QLED? It stands for quantum, or the behavior of particles at the smallest scales, and it's just one of the many ways a new era of quantum-based technology is revolutionizing everyday life.

However, most of the knowledge surrounding quantum science is understood and studied in college-level classrooms or by researchers. So, there is an immediate need to bring quantum instruction to high school chemistry classrooms, not only to cultivate the next generation of innovators but also to educate everyone about the current and future impacts of quantum on their lives.

Faculty from UConn's departments of Chemistry, Curriculum and Instruction, and Digital Media and Design are working to that end, hosting professional development for high school chemistry educators, with the goal of creating new K-12 curriculum that teaches quantum chemistry concepts.

The recent three-day workshop was only the first step in their work, which is part of the larger QuantumCT partnership between UConn and Yale University striving to make Connecticut "a leading hub for quantum technologies."

Now with the professional development workshop complete, research teams hope to finalize their respective educational materials — curriculum guides, student worksheets, and other instructional materials — and support teachers who attended the workshop to test them in classrooms across the state. Feedback from teachers and students will continue to be crucial in these phases of the projects.

Materials were developed in alignment with the Next Generation Science Standard, which are K-12 content standards that emphasize engaging learners in explaining things that happen in the world or solving problems of societal consequence and have been adopted either completely or partially by most of the states in the U.S.

quantumct.org

Summer Scientific Research by Connecticut Youth at UConn Health

Maham Chaudhary is only a teenager, but she is already learning how to conduct innovative research experiments at UConn Health, Connecticut's only public academic medical center with a robust research enterprise.

Chaudhary is in her senior year of high school at Hartford's Sport and Medical Sciences Academy.

In the summer of 2024, she was part of the unique High School Student Research Apprentice Program at UConn Health. The program invites Connecticut's talented high school students to gain exposure to the world of research in their state. The program is part of the longstanding Health Career Opportunity Programs (HCOP) led by founding director and associate dean Dr. Marja Hurley.

Chaudhary spent the summer in the laboratory of professor Nilanjana Maulik in the Department of Surgery, Molecular Cardiology, and Angiogenesis Laboratory at UConn School of Medicine.

"Maham is a very enthusiastic, highly articulate, and intelligent student. She is a highly motivated student, a good writer, and a great speaker. She has consistently demonstrated reliability, personal initiative, and very good management skills as she performed her assigned responsibilities," says Maulik, who each summer is dedicated to having a new group of students join her in the lab.

Chaudhary worked on her own lab project and even presented a poster on her research findings about the protein Thioredoxin-1(Trx1), showing that overexpression of Trx1 can increase the survivability of an ischemic skin flap and its mechanism of action after surgery.

"I was even able to see surgery on a mouse in the laboratory, which was very cool," she says. "The exciting translational research findings happening at UConn Health are leading to real advances in medicine for patients."

Since 10th grade, Chaudhary has been part of HCOP and its enrichment programs, which help Connecticut youth from all backgrounds and socioeconomic levels have the opportunity to learn more about medicine and science and also health professions to build a pathway for their careers to serve Connecticut in the future.

health.uconn.edu/hcop

High School Students Get Hands-On Experience at UConn Chemistry Early College Experience Day

More than 100 students from eight high schools across Connecticut gathered in the UConn Chemistry Building in May 2024 for a day of hands-on lab experiments.

The UConn Early College Experience (ECE) Chemistry Student Lab Day brought students from Rocky Hill High School, Immaculate High School in Danbury, Orville H. Platt High School in Meriden, Enfield High School, Berlin High School, Woodstock Academy, Somers High School, and University High School of Science and Engineering in Hartford, for a chance to get hands-on, practical experience in a college laboratory.

The schools are among at least 25 offering UConn-accredited chemistry courses. The more than 425 high school students who enroll in these courses must meet the same prerequisites and earn the same grades as undergraduates to obtain college credit.

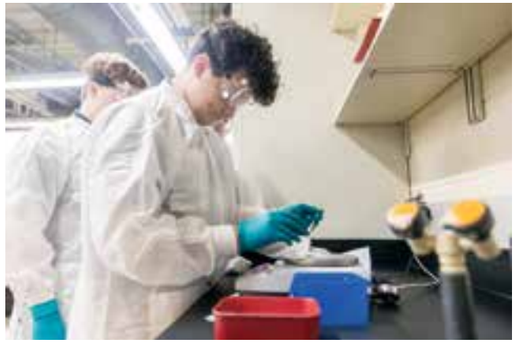
Noah Kerelejza, a junior at Platt High School, said he signed up for the course after taking an accelerated chemistry course and thought the two classes would be similar. However, he said he learned a lot in the ECE course and gained a lot of background scientific knowledge.

Ethan Cleveland, a junior at Platt, said he has always been interested in science and took the ECE course after other students recommended it. While he plans to one day become a physical therapist and hopes to come to UConn to study kinesiology, he found broad experience in the ECE chemistry course.

Chloe Rollins, a junior at Berlin High School, wants to pursue a career in pharmacy and said the ECE course provided her with great background knowledge for the college courses she will eventually take.

Anousha Hashim, a junior at Berlin High School, said she would recommend the course to other high school students, especially those who want to challenge themselves.

"We've done lab work in school, but I want to see what the lab work is like at UConn and the difference between a college experience as opposed to guided labs in high school," she says.



Berlin High School students work in one of the Chemistry Building labs during the Early College Experience Chemistry Student Lab Day on May 23, 2024. (Sydney Herdle/UConn Photo)

The 14 Senior Doctor Academy graduates in the Class of 2024 on May 15 received their white coats from HCOP leader Dr. Marja Hurley with their success also applauded by keynote speaker state Sen. Douglas McCrory. (Photo by John Atashian)

'Doctors Academy' at UConn Health Graduates High School Seniors

Neha Shanavas of Bloomfield knows she wants to be a UConn-trained physician committed to serving the underserved. Since middle school, her inspiration has been the Doctors Academy at UConn Health.

The Academy is part of the longstanding Health Career Opportunity Programs (HCOP) founded over two decades ago by physician-scientist Dr. Marja Hurley, during which middle and high school students receive in-depth education in the health sciences and career path mentorship on Saturdays and in the summer.

Shanavas, a graduate of the Sport and Medical Sciences Academy in Hartford, is enrolled in UConn's Special Program in Medicine to pursue both a bachelor's degree in molecular and cellular biology and a medical degree over the next eight years to become a doctor.

"UConn was always my top choice," Shanavas says. "The exposure to UConn Health via HCOP really sparked my interest in UConn's Special Program in Medicine. The team-based learning system and collaborative community also drew me in."

During high school, Shanavas worked with the Governor's Prevention Partnership to advocate for substance use prevention among youth. Growing up in a city with avid health disparities, she says she became committed to serving underserved communities.

"For state Sen. Douglas McCrory, giving back is a priority," Hurley said while introducing the keynote speaker at HCOP's graduation ceremony, who represents Bloomfield, Hartford, and Windsor.

"This program works. It develops health professionals. Young people — stick with it. Young people — we are counting on you. Show your love and compassion. And come back and serve your community," McCrory said in his address.

s.uconn.edu/doctorsacademy

UConn bound Neha Shanavas, 17, of Bloomfield, graduated from the Doctors Academy on May 15, 2024. (Photo by John Atashian)

Chelsea Erem '24 (CAHNR) leads middle school students in an activity exploring heart rate and physical activity. (Steve Bustamante/UConn Photo)

Allied Health Sciences Launches Hands-On Health Education Program at UConn Waterbury

As a growing number of Americans suffer from chronic illness and the need for workers in the health care field continues to increase, UConn Waterbury has launched an innovative program that gives local middle schoolers hands-on experience with science and health education.

Combining the city's initiatives to expand the local health care workforce with the Waterbury campus' focus on community outreach and engagement, the allied health science major's Hands-On Health project is a collaboration between UConn Waterbury students, allied health sciences faculty, Waterbury Public School students, and WPS district administration and faculty.

Led by Tamara Kaliszewski, Waterbury faculty lead, undergraduate students enrolled in a health education independent study host weekly STEM field trips on campus for Waterbury seventh graders.

Groups of 30 to 50 middle schoolers and their teachers spend a half-day rotating through stations of hands-on cardiovascular system activities, designed and presented by the undergraduates.

Goals of the program include stimulating interest in health and health care careers, augmenting the seventh grade science curriculum of organ system study with materials and activities not available in the classroom, introducing area students to UConn Waterbury, and providing UConn undergraduates with an experiential learning opportunity in health education and promotion.

In early 2024, nine student groups from seven Waterbury middle schools were scheduled to visit, and 14 undergraduates were taking part in the health education independent study. The program is expected to expand, and an estimated 17 groups were to visit campus in 2024–25 with 750 to 800 seventh grade students.

Funding from the Connecticut Community Foundation, Elizabeth Chase Foundation, UConn Waterbury Innovation Grant for Life-Transformative Education, and the CAHNR Teaching Enhancement Grant made the program possible.

alliedhealth.uconn.edu

UConn and Bridgeport Partner for Greener Schools

The University of Connecticut College of Engineering and Bridgeport Public Schools have joined together to implement comprehensive energy-efficiency and renewable projects at two Bridgeport schools through the U.S. Department of Energy's Office of State and Community Energy Programs.

The combined projects were among 24 selected nationwide after more than 1,000 concept papers were submitted early in 2023.

"Connecticut's flagship state university is honored to be part of this effort," George M. Bollas, director of UConn's Pratt & Whitney Institute for Advanced Systems Engineering, says. "The design of smart, healthy, and resilient schools for the low-income Connecticut environmental justice community in Bridgeport is well-aligned with the mission of the University to support the growth and prosperity of the state."

The funding will support the design and equipment retrofits and upgrades for two Bridgeport K-12 schools that will serve as demonstration sites for all 39 Bridgeport schools, and for thousands statewide and nationally.

When implemented, the planned projects are expected to lower energy usage by 1,000 megawatt hours and 32,000 CCF per year resulting in an expected annual minimum savings of $200,000 in energy costs for the two schools.

The project also supports workforce development by funding students in apprenticeship programs with scholarships at the Connecticut Technical Education and Career System and provides internships for engineering students at Housatonic Community College and UConn who will work with Loureiro Engineering in Plainville to support engineering design, construction management, and measurement and verification activities.

The workforce development programs will invest over $150,000 in scholarships, education, and training programs for construction trades, technicians, and engineers in Connecticut.

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