



## 2021 Postsecondary Sustainability Award Nominee Presentation Form

### ELIGIBILITY CERTIFICATIONS

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#### College or University Certifications

The signature of college or university President (or equivalent) on the next page certifies that each of the statements below concerning the institution's eligibility and compliance with the following requirements is true and correct to the best of their knowledge.

1. The college or university has been evaluated and selected from among institutions within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
2. The college or university is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a compliance review.
3. OCR has not issued a violation letter of findings to the college or university concluding that the nominated college or university has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the college or university has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings by Federal Student Aid of violations in respect to the administration of Title IV student aid funds.
6. The college or university is in good standing with its regional or national accreditor.
7. The college or university meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

### U.S. Department of Education Green Ribbon Schools Postsecondary Sustainability Award

Name of Chancellor: Dr. Jose V. Sartarelli

University Name: University of North Carolina Wilmington

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

A handwritten signature in black ink, appearing to read "Jose V. Sartarelli".

Date: 2/19/2021

(Chancellor's Signature)

## Nominating Authority's Certifications

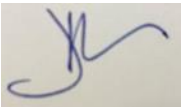
The signature by the Nominating Authority on this page certifies that each of the statements below concerning the college or university's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The college or university has been evaluated and selected from among institutions within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
2. The college or university meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: North Carolina Department of Public Instruction

Name of Nominating Authority: Mr. Jon Long, Architect, School Planning

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.



Date: 2/22/2021

(Nominating Authority's Signature)

## SUBMISSION

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509  
Expiration Date: December 31, 2023

### Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov) and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.



2021 Green Ribbon Postsecondary Sustainability Application

**Nominee Information**

Institution Name: University of North Carolina Wilmington  
 Category of Nomination: Postsecondary

Address: 601 S. College Rd.  
 City: Wilmington  
 State: North Carolina  
 Zip: 28403  
 Twitter: @UNCWilmington  
 Facebook: @uncwilmington

Top official:  
 Dr. Jose Sartarelli  
 Chancellor  
[sartarellij@uncw.edu](mailto:sartarellij@uncw.edu) Office: (910) 962-3030

Lead Applicant:  
 Kathryn Pohlman  
 Chief Sustainability Officer  
[pohlmank@uncw.edu](mailto:pohlmank@uncw.edu) Office: (910) 962-2724

**Check all that apply:**

Early Learning	<input type="checkbox"/>	Charter	<input type="checkbox"/>	Community College	<input type="checkbox"/>
Elementary	<input type="checkbox"/>	Magnet	<input type="checkbox"/>	Career and Technical	<input type="checkbox"/>
Middle	<input type="checkbox"/>	Non-Public	<input type="checkbox"/>	Urban	<input checked="" type="checkbox"/>
High	<input type="checkbox"/>	Two-Year	<input type="checkbox"/>	Rural	<input type="checkbox"/>
Public	<input checked="" type="checkbox"/>	Four-Year	<input checked="" type="checkbox"/>	Suburban	<input type="checkbox"/>

**Provide percentages, if any are relevant to your school, district, or institution:**

Pell Recipients: 26% (most recent data '17-'18) <sup>1</sup>	Special Education:
Free and Reduced Price Lunch:	Graduation Rate: 74%
Minority: 21%	Attendance Rate:
Limited English Proficient:	

**Provide the following:**

Total Enrolled: 17,915 Number of Schools: 7 Buildings: 159<sup>2</sup> Campuses: 3

<sup>1</sup> <https://www2.ed.gov/finaid/prof/resources/data/pell-institution.html>

<sup>2</sup> <https://uncw.edu/projectmanagement/documents/building%20square%20footage-index.pdf>



## 2021 Green Ribbon Postsecondary Sustainability Application

### **Introduction**

As North Carolina's coastal university, the University of North Carolina Wilmington (UNCW) takes great pride in maintaining the local area and community's natural allure and resources. The university's culture is shaped by the values of diversity and globalization, ethics and integrity, and excellence and innovation. Experience and critical thinking are supported holistically in the student experience through engagement, inquiry, and worldly exploration. A commitment to service, community engagement, and integrity builds lifelong character in students, faculty, and staff.

Growth with excellence defined the university in recent years. Enrolling nearly 18,000 undergraduate and graduate students, UNCW has been elevated to an R2 Doctoral University. The university has 55 undergraduate degree programs, 35 master's degree programs, and four doctoral programs in seven colleges. There are six extensions for learning, including Center for Support of Undergraduate Research and Fellowships, Center for Teaching Excellence, Center for Marine Science, Center for Innovation and Entrepreneurship, Osher Lifelong Learning Institute Swain Center for Professional and Continuing Education.

### **Highlights Report**

UNCW defines sustainability as individual efforts made by the community to ensure that today's world's unique resources and benefits will remain for future generations. We strive to weave these ideas into the university's mission of teaching, scholarship, and service in a way that demands economic vitality, social equity, and environmental stewardship.

Accolades awarded to UNCW for sustainable practices and actions are not the work of one department or organization but the entire community. UNCW has been listed on the Princeton Review Green Colleges, Sierra Club Cool Schools, UI GreenMetric, and the Association for the Advancement of Sustainability in Higher Education STARS rating system. It is beneficial to create benchmarks and create baselines for comparisons against other institutions. However, UNCW harnesses the flourishing activity and support to create the best Sustainability program, not as it compares to other universities, but as it aligns with our university's unique goals and champions the demands of our student population.

Local and specialized recognition for exemplary projects and infrastructure also creates pride in the university's dedication to sustainable development. The Lower Cape Fear Stewardship Development Coalition awarded several university projects incorporating measures to reduce environmental impact, including new construction, major renovations, and outdoor built space. The university works with organizations that focus on specific areas to build upon best practices with experts. These organizations include, but are not limited to, the US Green Building Council, League of American Bicyclists, Green Restaurant Association, Environmental Science.org, and the State Energy Office.

A system of dedicated individuals and programs are implemented to continue the support and growth of sustainability and environmental stewardship. The Sustainability Committee is the grassroots organization that provides recommendations for improvements and new projects to the Chancellor's Sustainability Council to prioritize. The Office of Sustainability hires student Sustainability Peer Educators and Sustainability Interns to promote sustainable habits and act as a liaison with the student body. The Green Initiative Fund is a student fee that funds the Sustainability Peer Educators, Mini-Grants for sustainable research, and projects that bolster sustainability at UNCW.



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Creating a healthy campus is incorporated through many programs that promote emotional, engagement, financial, intellectual, occupational, physical, spiritual, and sustainability. Healthy Hawks is a cross-campus campaign promoting programs and educational opportunities that support this spectrum of wellness. The university constructs and maintains built areas to the highest standard to ensure occupant well-being. From general maintenance to post-hurricane recovery, UNCW Landscape Services works diligently to create, protect, and preserve beautiful areas using innovation and Best Management Practices to ensure the health and integrity of the environment and people. The campus grounds are often used for volunteer experience, applied learning, and utilizing the campus as a living-learning laboratory. Environmental Health and Safety responds to the community-at-large to ensure safety measures such as indoor air quality and hazardous waste are handled with the highest standard of care.

Sustainability research and applied learning projects are represented in various colleges and courses. An interdisciplinary engagement in sustainability through the Sustainability Minor and TGIF Mini-Grants builds students' understanding of these issues and resolutions' interconnectedness. STEM is incorporated in various sustainability programs and research. The Watson College of Education teaches STEM to a new generation of teachers and students in the local community. From aquaculture and coastal engineering to youth programs and teaching certifications, UNCW is working to utilize as much science, technology, engineering, and math to solve complex issues in the environment.

As a core value of the university, community engagement is woven through the fabric of the campus. There are designated offices to connect faculty, staff, and students to local organizations and non-profits. Opportunities to volunteer are diverse and frequent. Whether on or off-campus, the Seahawk culture encourages personal and professional growth through civic engagement and service.

### **PILLAR I**

#### **Greenhouse Gas Emissions and Energy Efficiency**

Every three years, UNCW develops a Greenhouse Gas (GHG) Inventory for emissions, including all scopes (1-3). The inventory follows the accounting framework and guidelines outlined in the GHG Protocol Corporate Accounting and Reporting Standard (GHG Protocol). University data associated with fleet fuels, stationary combustion, refrigerants, purchased electricity, business travel, solid waste, transmission and distribution losses, student and faculty commute, and supply chain are used to assess trends and guide strategy development.

In 2014, various stakeholders and sustainability champions drafted the first Sustainability Action Plan (SAP) to reflect the Greenhouse Gas Inventory's critical areas to reduce emissions. The SAP is a living document updated yearly, and all university community members are encouraged to participate. The grassroots-level Sustainability Committee collects recommendations from the community and provides those recommendations to the Chancellor's Sustainability Council. The Council prioritizes all of the proposals; none are discarded. The goal is to include a range of sustainability initiatives and infrastructure improvements to stimulate energy efficiency and pollution reduction. As a result of this plan, many logistical enhancements have been implemented. One recent example is the carpool parking permit.



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The UNCW Office of Facilities is a leader in identifying and supporting energy efficiency in the UNC System. UNCW was the first university in the system to reduce the campus' energy use by 30%, based on 2002 baseline numbers. Facilities achieved this reduction primarily through Performance Contracts. UNCW was the first school to complete Performance Contract one and two in the UNC system.

Additionally, there have been several university-driven infrastructure improvements to increase energy efficiency. Utilizing the Guaranteed Energy Savings Contract, incandescent light bulbs across the campus have been replaced with the LED upgrades. Currently, over 95% of outdoor lighting is LED bulbs. Additionally, across campus, boilers have been replaced with more efficient units. Recently, Facilities installed the Konvecta Heat Energy Recovery system in a laboratory building with an expected lifetime energy savings of 40%. The same building was incorporated in a virtual energy plant to reduce redundancy and increase energy efficiency in that campus quadrant.

(Photo 1 - Students travel on Chancellor's Walk at night under LED lights)

In 2009, the UNC system created a Sustainability Policy. The policy states that new construction and significant innovations will consider sustainability and lifecycle cost analysis during construction. This policy builds upon the code that all state-funded buildings must build to at least LEED Silver standards, outlined by the USGBC. UNCW has certified five spaces as LEED Silver, including the Student Recreation Center, a four-building residence hall, two laboratory buildings, and a parking deck. Energy-specific points of pride in these spaces includes solar panels to maintain the minimal temperature of the leisure pool, smart systems that condition the air based on carbon dioxide, utilization of natural lighting, ENERGY STAR™ appliances, and the use of LED lights in these buildings.

The university has been awarded recognition for energy efficiency by several organizations, both local and national. The state of North Carolina has given the university both the Best Practices in Leadership Award for utility savings and overall. One of the main dining halls was designated as a three-star Green Certified Restaurant with an average savings of 92,725 kWh and 491,548 gallons of water each year. This is the first Green Certified Restaurant in Wilmington, NC. Locally, the Lower Cape Fear Stewardship Development Coalition has recognized several campus projects for significant achievement, including all of the LEED-certified buildings and the campus recreational fields for having excellent energy and water efficiency measures.

While infrastructure efficiency and conservation measures are tremendously important, the occupants' behavior is equally as impactful in reducing greenhouse gas emissions and energy efficiency. The university has implemented several campaigns and programs to encourage best practices and established habits for community members. Stickers that say "Turn off the Lights" have been placed on each light switch for decades. A fume hood sash campaign trains students and faculty that work in fume hoods to leave the sash at a level that reduces the energy wasted on pulling the conditioned air through the system and improves the occupants' health and safety. Stickers beside each fume hood have "red" and "green" zones to indicate where the sash should be most of the time. The "Shut the Sash" campaign is also now covered in laboratory training at the beginning of each semester. During the pandemic, the Sustainability Council created the "Unplug Fridays" event. The goals are to educate the community about vampire electronics, encourage everyone to take at least an hour to unplug all energy-consuming devices and establish the habit of unplugging electronics, especially over weekends and long holidays.



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Campus Dining reduces the carbon footprint of the campus by committing to local and plant-forward menus. The Green Spot is a dining facility that exclusively serves locally purchased food. Other dining locations have committed to the NC 10% campaign of sourcing at least 10% of all food purchased from the state of NC. Sourcing locally creates a dynamic menu of seasonal options that provide rich nutrition and variety in choices. Once a semester, the Student Government Association invites Feast Down East to hold a small farmer's market on campus. Feast Down East is a non-profit born within the university that supports the local food system.

(Photo 2 - "Farmers Market" – The Student Government Association hosts Feast Down East for a one-day farmers market for students, faculty, and staff.)

When specific food items cannot be found in North Carolina, Campus Dining strives to find GMO-free, Fair Trade, or humanely raised options. Additionally, UNCW has an abundance of plant-based options at every dining facility. PETA has awarded the campus with an "A" on the Vegan Report Card. This accessibility of meatless options, in addition to programming such as "Meatless Mondays," encourages all patrons to reduce their meat consumption and consequently the carbon footprint of the university.

### **Water Conservation and Pollution Mitigation**

As North Carolina's coastal university, UNCW has an extraordinary relationship with water. The university takes the responsibility of stormwater stewardship and water conservation seriously, creating a space for the entire Cape Fear community to learn about best management practices.

UNCW has partnered with the North Carolina Coastal Federation to work on stormwater projects, funded by an EPA grant. Four rain gardens have been installed to manage over a million gallons of water a year in the past three years. The project also included installing twenty-foot ribbons of impervious concrete around nine storm drains at the university. The pervious concrete allows stormwater to penetrate through, diverting it from the drain and the stormwater system that carries the untreated water directly to the Intracoastal Waterway. (Photo 3 - "DePaolo Hall Raingarden" – Student and community volunteers plant native flowers and bushes in a rain garden.)

The university's Landscape Services has an aggressive goal of removing all irrigation from city water and utilizing reclaimed stormwater pumped from retention ponds within the next few years. Over 70% of the irrigation is currently on this system, reusing 760,000 gallons of stormwater instead of potable water each week. The Landscaping Services also plants native or low-maintenance plants when possible. The native flora requires less irrigation or treatments to thrive. The same recreational field awarded local recognition by the Lower Cape Fear Stewardship Coalition for energy efficiency was also recognized for its excellent stormwater management and a decreased need for irrigation in general.

As mentioned before, state-funded buildings must build to at least LEED silver standards. This standard includes water conservation in various types of equipment. Low-flow bathroom fixtures and motion-sensor sinks are common across campus. Small changes such as going "trayless" at the main dining facility have saved 8,782 gallons of water each day since 2007.

Like the programs implemented to change behavior with energy efficiency, UNCW also has campaigns to conserve water. Signs are posted across the campus in restrooms to remind occupants that water is precious and should be used wisely. Competitions between residence halls to reduce the water used per total building



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occupants happens as often as possible. Students are encouraged by the Sustainability Peer Educators to conserve personal water each semester with social media campaigns and events. Several student organizations specifically focused on water quality, including Plastic Ocean Project, Surfrider, and Ducks Unlimited.

### **Waste Reduction and Diversion**

Waste management and reduction are critical in the county where UNCW is situated because the landfill is nearing the end of its capacity. As a large organization, the university must reduce and divert waste from the landfill as much as possible. Unlike most large universities, UNCW has an in-house recycling program. This means that recyclable materials are collected by university staff and hand-sorted. Those materials are sold directly to vendors who purchase them to be recycled. This careful process ensures that the maximum amount of recycling truly makes it to the recycling center instead of being sorted out at a large recycling facility. The Recycling Department not only accepts traditional recycling such as paper, plastic, glass, metals, but they also collect batteries and electronics recycling. UNCW even has a special Styrofoam recycling program. The recycling program is also open to the general public to drop off at an open depot.

Several items cannot be recycled for free, or the materials cannot be sold. For these items, the Office of Sustainability strives to make Terracycling available. Currently, there are Terracycling bins across the campus for cigarette butts, disposable gloves, and candy wrappers. The University also has a membership with the Crayola marker recycling program.

Before the pandemic, the Office of Sustainability recruited volunteers to clean the stands at each home basketball game. Students would collect the recyclable materials from the stands, where before it was all thrown into the landfill waste. UNCW also participates in Campus Race to Zero Waste, formally known as RecycleMania, and has hosted several zero-waste basketball games.

UNCW is not just a contributor to the New Hanover County composting program; it is because of the university that the county was able to start the program. The partnership began three years ago as the university helped the county research the best type of facility. Once the county installed the in-vessel system, Campus Dining and the Office of Sustainability hand filtered the organic material from the dining hall, removing all contaminants, to start the program with a clean stream. UNCW diverts about 4,000 pounds of compostable material every month to the New Hanover County composting facility from the main dining hall. The composting, recycling, and waste reduction initiatives divert over 90% of the waste created from the landfill in this dining hall. Another buffet-style dining facility is equipped with an Eco-Vim food dehydrator. This machine reduces 250 pounds of food waste into 25 pounds of nutrient-rich soil additive multiple times a week. Events held on campus can opt-in to include composting bins and compostable plates, and cutlery through an Office of Sustainability program called Gold Talon Events. Plans to expand this program are prioritized for the immediate future. Campus Dining donated 4,500 pounds of expired food to local farmers and animal non-profits. Overall, the campus diverted 56,000 pounds of organic waste from the landfill in 2020 alone. (Photo 4 - "Compost" – A Sustainability Peer Educator helps Gold Talon Event guests ensure their waste goes in the proper bin.)

There are several programs in place to reduce the amount of waste generated by the university. In 2007, the Student Government Association bought a water bottle refill station, and now there is one available in nearly every campus building. These filtered refill stations are easily accessible and a financially responsible





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alternative to bottled water. UNCW's Bookstore offers textbook rental, used books for purchase, and eTextbooks. The Surplus Property and Store ensures that all state-owned property has the chance for a second life by requiring that anything bought with state funds is collected by Surplus for reuse by the university or resale to the public. Closet Clean-Out is a program for students to easily donate their gently used items at the end of each semester. PODS are placed next to the dumpsters at their residence hall for donations. The materials placed in the PODS are sorted by volunteers and donated to the appropriate nonprofit. The Department of Chemistry and Biochemistry has redesigned their experiments to reduce the volume of chemicals used to a minimum amount for each experiment.

Campus Dining has implemented several ways to reduce waste as well. Outside of the pandemic, there is a discount given at each coffee shop for bringing a reusable mug. Patrons may also fill their bottles at buffet-style dining locations. There are small convenience stores on campus that have eliminated plastic bags and products with microbeads entirely. The three most extensive dining facilities have also eliminated plastic straws and, when possible, replace single serving condiments with bulk dispensers. All of the fryer oil used in the dining halls is converted to biofuel by an outside vendor.

The Purchasing Department has specific guidelines to encourage waste minimization.<sup>3</sup> This university's policy encourages and promotes the purchase of products with recycled content to the extent economically practical and to purchase items that are reusable, refillable, repairable, more durable, and less toxic to the extent that the purchase or use is feasible and cost-effective. It also encourages and promotes using minimal packaging and the use of recycled/recyclable products in the packaging of commodities purchased. Companies are strongly urged to bring to the purchasers' attention in Purchasing Services those products or packaging they offer that have recycled content and that are recyclable.

Hazardous waste at UNCW is managed by professionals in the Office of Environmental Health and Safety (EH&S). While some hazardous waste must be created due to research performed on campus, it is all handled with the absolute best practices available. According to policy, EH&S, or their designee, determines whether the chemical waste meets the definition of hazardous waste. EH&S will decide within four business days of the material being transferred to the satellite accumulation area. If the chemical waste is hazardous, the words "hazardous waste" will be included on the container label.

Trained personnel may transfer the chemical waste contents to a larger container (55-gallon drum) before shipping off-site for treatment. All containers of waste to be shipped off will include all of the required markings before shipping off-site. All hazardous waste shipments will consist of a hazardous waste manifest and required certifications. Hazardous materials including but not limited to gas, propane, chemicals, tiki torch fluid, gas grills are not permitted in on-campus housing under any circumstances.

### **Alternative Transportation**

UNCW encourages alternative transportation through education, incentives, and master planning. One of the City of Wilmington's two extensive multi-modal paths cuts through the campus, and the other is campus adjacent. Both routes connect Wrightsville Beach to other areas of interest in town. These safe trails contribute to an energetic cycling community at the university. In 2016, UNCW implemented a bike-share program on campus that could be used by students, faculty, and staff for free. As the program evolved, the university utilized a new bike-share company with a small fee. There are many available bike racks across campus, some

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<sup>3</sup> <https://uncw.edu/purchasing/forvendors.html>



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under shelter. A bicycle hub is located near the first-year student residence halls to help students learn how to maintain and fix their bicycles. Students are encouraged to register their bikes with the university, which creates a system to identify and return bikes if lost. The university participates in the "Watch for Me NC" program, educating motorists and cyclists about safety. The university was awarded a silver certification for Bicycle-Friendly University from the League of American Bicyclists for these merits.

(Photo 5 - "Bike Share" A UNI-101 class takes a campus tour via the UNCW bike share program.)

All UNCW community members have free, unlimited bus access to the campus Point-to-Point shuttle and the city's bus system with university ID. Additionally, there is a specific route to help students quickly and easily get from the highly populated college student living areas to campus and back. A shuttle runs to the satellite campus seven miles from campus regularly for students doing research or taking classes at that location. There is a tracking app to make planning travel on the Campus Loop shuttle convenient for passengers.

Parking passes for on-campus parking during the day are restricted to those who live within a campus's one-mile radius. This encourages walking, biking, skateboarding, etc., for those who live within a reasonable distance. For campus members that live outside of the one-mile radius, a discounted carpool pass is available for those who would like to share a ride and reduce their carbon footprint. All parking lots and roads have been developed around the perimeter of the campus. The academic buildings are mostly aligned on a centralized path built to make walking or biking easier and faster than driving around the campus.

## **PILLAR II**

### **Health and Wellness**

Supporting and nurturing the mental and physical health of the collegiate community is a top priority at UNCW. There are various specific and inclusive organizations, programs, and resources for students, faculty, and staff to create a healthy environment for all. While these opportunities support health, nutrition, and mental health, it is up to the individual to take full advantage.

Healthy Hawks is an overarching program, not owned by one particular department or organization, used as a centralized megaphone for healthy behaviors. This nine pillar program includes various aspects of health, including; engagement, emotional, financial, intellectual, occupational, physical, spiritual, sustainability. This initiative promotes programs in all nine pillars and incentivizes learning with certificate programs. Health and wellness resources at the university and beyond, accessible to students, faculty, and staff, are housed on the Healthy Hawks website.

Despite the many challenges that COVID-19 created for programming efforts, Healthy Hawk programming increased by 186% when compared to the Fall of 2019. This increase can be attributed to the many efforts launched during the 2019-2020 year amplifying the Healthy Hawks initiative. Sixty-seven different departments and organizations hosted Healthy Hawk programming. Within events tagged as Healthy Hawks, 44,362 campus community members participated in programming.

There are several programs and departments within the university that have a more specific focus on key elements of health promotion.



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- Health Promotions is UNCW's central resource for health education, programs and services. Professional staff and peer educators offer expertise in shaping a healthy lifestyle.
- The Campus Dietician provides individual nutrition consults for UNCW students. In addition, this position is responsible for educational activities and programs that address students' nutrition issues.
- The Counseling Center provides a broad range of psychological, counseling, and educational services that facilitate the personal and academic success of students enrolled at UNCW.
- The Employee Assistance Program is a confidential counseling and resource program designed to help UNCW employees and their families deal with both personal and work-related concerns. UNCW contracts with ComPsych to administer this program.
- CARE intervenes on a broad spectrum of violent behaviors, including sexual assault, relationship abuse, stalking and harassment. They offer a comprehensive variety of violence prevention and relationship education programs, trainings, and educational campaigns to the UNCW campus. CARE also responds to students who have been victimized, as well as those affected by someone else's experience with abuse or assault, by providing supportive services, including crisis response, individual advocacy and coordination with both on-campus and off-campus resources.
- Crossroads is UNCW's alcohol and other drug prevention and education program.
- The Student Recreation Center provides cardio and weightlifting equipment, a lap pool and a leisure pool, a climbing wall, basketball and volleyball courts, and fitness classes. The Campus Recreation department also provides outdoor fields, basketball courts, beach volleyball courts, and tennis courts.
- Seahawk Adventures offers local and regional adventure-based trips, a 28-foot climbing wall, a low and high challenge course, and equipment rentals for your own independent adventure.
- Competitive sports at UNCW includes various intramural and club teams.

The use of outdoor space to decompress and connect with nature is one of the most impactful benefits of the beautiful environment and mild climate at UNCW. Bluethenthal Wildlife Preserve is a unique space located in the center of campus. This preserve provides just over a mile of trails that meander through longleaf pines, pocosin, a lake, carnivorous plants, and hardwoods. Adjacent to the lake is one of two outdoor learning spaces at UNCW. The other outdoor learning space is adjacent to the building where the English Department is housed. All undergraduate students must take an English course and can benefit from this space. Other outdoor activities include the Teal Trail I, a 1.65-mile walking loop around the campus with signs scattered throughout for directions and sustainability facts about the area. If needed, there are solar-powered umbrellas in front of the library for those who would like to enjoy the outdoors and need to charge a cell phone or other device. (Photo 6 - "Bluethenthal" – UNCW community members volunteer to maintain trails in Bluethenthal Wildflower Preserve)

Landscaping services primarily maintains the campus grounds. A goal of the department is to reduce the amount of chemicals used by the maximum degree possible. An Integrated Pest Management Plan is in place to eliminate the use of pesticides by all means possible. Other chemicals such as fertilizer and herbicides are used minimally, and alternatives are used whenever possible.



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### **Environmental Health**

The EH&S department's mission reads as follows, "To lead the university to a safe, healthy, sustainable and disaster-resilient culture by providing educational, technical and operational services to support the campus community. We provide the university with information necessary to address regulatory compliance and actual losses associated with environmental, health, and safety issues."

There are several policies and memorandum of understandings at the university that encompass the health and safety expectations from natural areas to construction to maintenance. Primary environmental health and safety policies outline their responsibility and the requirement of the university to uphold regulatory requirements under NC Department of Labor, Division of Occupational Safety and health, NC Department of Health, Health and Natural Resources, NC Department of Insurance, Wilmington Fire Department, North Carolina Radiation Protection Section, the United States Department of Transportation, and other applicable federal state and local safety and health regulations. These policies also give the department responsibility related to the design and construction activities in environmental health and safety. Additionally, a safety and health committee at the university reviews policies and procedures and reports action findings and recommendations no less than annually.

The Indoor Air Quality Program reflects UNCW's recognition of the importance of providing an indoor air environment free of recognized hazards. It describes the university's commitment to a thorough and fair investigation of indoor air quality complaints and technically sound remediation of recognized conditions. Implementation of this plan provides consistent reporting and evaluation of indoor air quality (complaints; identifies departmental responsibilities; addresses remediation of recognized problems; and provides for periodic review of conditions). The program applies to all university facilities.

UNCW's integrated approach, involving EH&S, Office of Facilities departments (Physical Plant, Architectural and Construction Services, Project Design & Management), the occupants of the building space in question, and senior management ensures that the university will evaluate conditions consistently, responses will address immediate needs, and planning will consider long-term implications. There are various outlets for students, faculty, and staff to report any issues with indoor air quality, potential mold, mildew, or other health and safety issues. Although the university has regular inspections and constructs and maintains to the highest quality possible, when inquiries are submitted, they are inspected and mitigated thoroughly and promptly.

Special training is given to UNCW housekeepers to ensure that cleaning chemicals are mixed and diluted to the proper standard. Whenever possible, certified green cleaning products are used. The university's dining facilities use blue cleaning products infused with ozone to reduce chemicals while not compromising the cleaning products' effectiveness. Landscape Services' IPM plan uses chemicals as a last resort on landscaped areas.

In addition to air quality, EH&S protects water quality on campus as well. UNCW has an aggregate above-ground storage capacity of more than 1,320 gallons and is therefore considered a regulated facility. The Regulation requires each owner or operator of a regulated facility to prepare a Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC Plan is required to address the facility's design, operation, and maintenance procedures established to prevent spills from occurring and countermeasures to control, contain, clean up, and mitigate the effects of an oil spill that could affect navigable waters.



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### **PILLAR III**

#### **Interdisciplinary Learning**

A nine-credit hour Sustainability Minor was created to enrich any course of study with sustainability values that can be incorporated in any career. This minor is available to students, regardless of their major. This minor includes three courses, one from each pillar of sustainability. Those students who attempt or complete a Sustainability Minor examine these sustainable practices' interconnectedness encompassing a multi-generational and transitional responsibility.

In 2020, the first Sustainability Learning Community was established for first-year students at UNCW. This learning community provides the opportunity for these first-year students to live in the same residence hall and take three classes as a group that encompasses the dynamics between people, planet, and profit. The first cohort was enrolled in Sociology of the Environment, Environmental Issues of Today, and a sustainability-focused UNI-101 course. An exemplary project by the learning community is the partnership with the Good Shepherd Center and Wilmington Compost Company. The students implemented a compost program at the Good Shepherd Center's main facility for pre-consumer and post-consumer organic waste. The material was collected by the Wilmington Compost Company and composted. The final product will improve the gardens at one of the Good Shepherd branches that provide support for veterans experiencing homelessness. This applied learning project encompassed the dynamic relationship between social equity and environmental sustainability, focusing on life cycle evaluations and cost-effectiveness analysis.

UNCW has maintained a Sustainability Action Plan for several years and in 2020, the Office of Sustainability began a campus-wide collaboration to create a Climate Resiliency and Action Plan focused solely on the community's needs to reduce our greenhouse gases and implement resilient infrastructure in the face of impending climate issues. The plan will be researched, written, and edited 100% by students. The process started in 2020 with a graduate English class, and today there are more courses involved, interns, and an interactive website. The plan is an interdisciplinary project open to students from all disciplines to work together and create a document that is truly for the future, by the future. As individuals work on specific topics, they are posted to a website for review, comments, and edits. Additionally, there are forums held via an online platform for community members to join and provide feedback.

The Center for Healthy Communities, the Cape Fear Food Council, and the Office of Sustainability have created a system to streamline communications between hunger-relief programs in the Cape Fear Region, specifically for any post-hurricane situation. This is imperative during natural disasters when all resources are strained. By providing the benefits of centralized communication to reduce the overlap of services and filling voids, we have gained the trust of New Hanover County Emergency Management, the American Red Cross, and the disaster coalition. We have utilized the Sustainability Peer Educators and interns to perform comprehensive simulations on Zoom.

The Green Initiative Fund is a student fee used to fund mini-grants for research, programs, and initiatives that support environmental stewardship at UNCW and in the community. Each year, at least \$20,000 is allocated to students and faculty for projects that align with the fund's mission. Projects that are collaborative and have a community outreach component are prioritized. Examples of projects include:

- Building a solar-powered charging station for campus events.



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- Surveying coastal businesses for sustainability practices.
- Creating a documentary of sustainable points of pride across the state of North Carolina.

(Photo 7 - “Solar Charging Station” – TGIF Mini-Grants funded a student-built solar-powered charging station used at events)

### **Sustainability and STEM**

UNCW defines Sustainability as using today's resources so that it will not hinder the same opportunities for the next generation. Traditionally, this definition refers to the three pillars of environmental stewardship, economic stability, and social equity. The university has developed programs and opportunities available to all students with applied learning and classroom experience that illuminates these pillars' interrelationship. Sustainability pillars have a mutualistic relationship with science, technology, engineering, and mathematics (STEM). Utilizing the campus as a living laboratory creates space where students from all disciplines can experience Sustainability and STEM through applied learning opportunities within their specific field of study.

UNCW is an internationally recognized leader in coastal and marine science education and research and the first university in the U.S. to offer a Bachelor of Science degree focused on coastal engineering. The Coastal Engineering program teaches students to address issues affecting coastal communities around the world through the application of geological and physical oceanography, coastal management curriculum, applied physics, and civil and ocean engineering fundamentals.<sup>4</sup> The program leverages the university's expertise in earth and ocean sciences, physical oceanography, and environmental science, as well as the regional and geographic distinctiveness of coastal North Carolina. The program focuses on foundational courses and specialized coursework in coastal engineering and marine sciences. Students have the opportunity to experience extensive field research in the area's waterways and coastal habitats under the direction of faculty scholars and access to state-of-the-art facilities, including the UNCW Center for Marine Science (CMS).

The mission of the CMS is to promote basic and applied research in the fields of oceanography, coastal and wetland studies, marine biomedical and environmental physiology, and marine biotechnology and aquaculture. The aquaculture program goals are to develop and transfer to commercial users cost-effective, environmentally sound technologies for marine food production and to mitigate depletion of marine populations through commercial cultivation or stock enhancement. The DNA Analysis Core Facility's (DNA Core) mission is to provide UNCW with the state-of-the-art infrastructure and expertise needed to generate and analyze DNA data for research and education. It is the only DNA analysis facility in southeastern North Carolina. The Spectroscopy Core Facility is equipped with both nuclear magnetic resonance (NMR) and liquid chromatography-mass spectroscopy (LCMS) capabilities. UNCW ARC Research team helps provide the opportunity for commercial, industrial, and academic research to explore the use of living marine microalgae. The collection houses over 960 living clones from over 70 unique species originating from around the globe.<sup>5</sup> (Photo 8 - “Student Research” – A student tests microalgae in the laboratory to test the potential uses.)

The Green Initiative Fund Mini-Grants fund student research related to Sustainability that often includes STEM. An exemplary research project is the Coastal Eco Explorer. This project aims to establish a pioneering GPS-activated environmental education mobile application featuring coastal NC native plants and animals at

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<sup>4</sup> <https://uncw.edu/phy/prospective/coastalengineering.html>

<sup>5</sup> <https://uncw.edu/cms/>



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Carolina Beach State Park. This mobile app will allow users to read about local flora and fauna while learning about diverse habitats from a “virtual park ranger,” all while enjoying the scenery of a state park trail. When a park visitor enters a specific ecosystem, the app will send a notification providing the option to listen to a video discussing the very flora and fauna of the habitat where they are located. Following the video, the user may peruse content regarding six species living and interacting within each ecosystem. The user will then be directed to an ecosystem home page, where they can explore information about three flora and three fauna for each ecosystem. Coastal Eco Explorer is a collaboration between the NC State Parks System and UNCW professors and students. The application will be a demonstration of UNCW’s creativity and commitment to conservation education. The project is providing a research and development experience for students of all ages.

A 250-gallon aquaponics system is located in the middle of Wagoner Dining Hall. A joint project between UNCW’s departments of sociology and criminology, marine biology and biology, and environmental studies, the tank combines aquaculture and hydroponic technology, allowing plants and fish to coexist. Campus dining utilizes the vegetables and herbs grown, furthering the availability of sustainable foods on campus. Students are able to conduct activities involving chemistry, physics, biology and sustainability to solidify their understanding of scientific theories. A “how-to” guide is posted on the side of the container. The tank provides countless hours of learning for students across a wide array of disciplines.<sup>6</sup>

Several courses in the Geospatial Technologies Minor focus on STEM and technology. Through the Environmental Sciences department, an introduction to GIS is used as a tool to address environmental management/study issues. In the Department of Geology, remote sensing and ecological analysis use and interprets aerial photography and other remote sensing techniques in environmental analysis. The Department of Biology and Marine Biology hosts the Ecology Laboratory providing experience in field sampling, laboratory and computer modeling of sampling approaches, and scientific writing.

UNCW has a long history of providing STEM learning opportunities for the community. These opportunities include:

- Hosting regional Science Olympiad competitions.
- Providing professional development workshops for in-service teachers.
- Loaning STEM equipment to caregivers for the special education community.
- Securing grant funding to bring programs like MarineQuest to rural, underserved schools.

UNCW supports STEM, the Center for Education in STEM (CESTEM), Youth Programs, and the Center for Assistive Technology formed the STEM Learning Cooperative (STEM LC). These programs capitalize on campus and community partnerships to develop and deliver aspirational STEM learning opportunities for students, families, and educators.

UNCW’s new iSTEM Teaching Certification program is designed for secondary mathematics, science, and computer science teachers who want to learn how to successfully integrate important concepts across STEM disciplines in the high school classroom. The program, one of the first of its kind in the country, will teach you how to emphasize the rich connections between STEM disciplines, break the curriculum silos, and develop effective inquiry and project-based instruction.

The STEM Learning Cooperative in the Watson School of Education enables and supports STEM learning through the teaching-scholarship-engagement mission of the University – in cooperative and

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<sup>6</sup> <https://uncw.edu/news/2015/04/uncw-unveils-250-gallon-aquaponics-tank.html>



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collaborative relationships with campus and community-based partners – through a commitment to the following:

- STEM learning for Pre-K-16 learners in schools, community agencies, business and corporate contexts, and informal learning settings;
- STEM learning for professional educators and students in pre-professional programs, including those in informal and formal settings;
- STEM learning support for learners with exceptional and/or special needs; and,
- STEM learning for inclusion of underrepresented and diverse populations/communities
- The STEM Learning Cooperative accomplishes the work described above by creating and implementing programs to support the mission of the Cooperative and its partners. By synergizing and networking to support STEM learning, the Cooperative creates opportunities for, and engagement in, research and evaluation initiatives and projects. By cultivating relationships and identifying strategies to secure resources to support the work of the Cooperative and its partners the infrastructure develops and grows.

The STEM Learning Cooperative has several current projects that support the community.

Leap into Science is a series of evidence-based curriculum and training resources that integrate open-ended science activities with children's books for children ages 3-10 and their families. The program designed to take place in community settings like libraries, museums, and out-of-school time programs to engage underserved audiences in accessible and familiar settings. STEM Southeastern North Carolina (SENC) is an ecosystem committed to bringing together individuals, organizations, schools, institutions, and businesses for the purpose of supporting STEM learning for youth in the region. STEM SENC is one of five community initiatives selected by the Institute for Emerging Issues to participate in ReCONNECT Rural and Urban, part of a three-year, six-forum series focusing on bringing North Carolina and North Carolinians together across lines of division. Selected communities are actively working on efforts to address shared challenges, and promote and more effectively leverage interconnections between different community types. An annual STEAM celebration geared toward special education learners. Recent events include ChangeMakers (2019), Full STEAM Ahead (2018), and Robotism Rocks (2017). The 2019 event, ChangeMakers, allowed young people to explore maker technology as part of the Maker Movement. I-40 E.A.S.T. (Engineering, Agriculture, Science, and Technology) is a two-year project engaging students from rural communities in southeastern North Carolina in lab-based scientific investigations, career exploration, public presentations, planning for community development, and STEM entrepreneurship. Finally, The Jr. Seahawk Academy is an educational day program designed specifically for middle-grade students to develop interests in science, technology, engineering, math (STEM), health, and education careers while participating in various fun, hands-on activities that promote learning. The Junior Seahawk Academy's targets students from economically disadvantaged and underrepresented populations.<sup>7</sup>

D.C. Virgo Preparatory Academy (DCVPA) is a K-8 year-round public school that was opened by UNCW in July 2018. The school offers a family-friendly environment, with a focus on the whole child and opportunities that extend to the UNCW campus and broader community. The two schools have a mutualistic relationship. The university is able to train students for elementary and middle school education while also creating unique programs for the students of DCVPA. Many of the lessons and programs are focused on or

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<sup>7</sup> <https://uncw.edu/stem/about.html>





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involve STEM concepts and the environment.<sup>8</sup> Departments and organizations across the campus partner with DCVPA for field trips, growing gardens, competitive educational events, and career development. (Photo 9 - “STEM” – A student leads an Engineering class in the STEM Innovation Zone classroom at D.C. Virgo)

### **Civic Engagement**

One of UNCW’s core values is community engagement. The university has opportunities for students, faculty, and staff to serve and give their time to creating a stronger, healthier region. Experiences and volunteer opportunities are generated by departments, student organizations, and other entities across campus. There are two main organizations that promote this calendar and build connections for future endeavors.

UNCW’s Office of Community Engagement and Applied Learning (OCEAL) is committed to uplifting our faculty, staff, students and community partners to support a thriving future for southeastern North Carolina,<sup>9</sup> our surrounding region, nation, and the world. The mission of OCEAL is to create opportunities for faculty and students to engage in community-based learning and scholarship; and to support, leverage, and build applied learning activities across campus aimed at achieving student success. This Office also acts as the front door for community-based organizations and government institutions seeking University support to address unmet community needs. Our outreach units provide access to inclusive and diverse leadership and learning experiences, cultural programming, and community-building opportunities.

Several programs fall under the umbrella of the Office of Community Engagement. Quality Enhancement for Nonprofit Organizations (QENO) is a partnership between UNCW and the community created to help strengthen nonprofit organizations in southeastern North Carolina through professional, leadership, and organizational development and providing connections to UNCW faculty, staff, and students. QENO leads multiple university-wide collaborations to provide increased resources to our region's nonprofit sector.<sup>10</sup> The Osher Lifelong Learning Institute (OLLI) at UNCW is one of 120 prestigious institutes founded by Bernard Osher since 1997 for seasoned learners 50+.<sup>11</sup> The Center for Social Impact’s faculty conduct interdisciplinary research with community partners; consult with nonprofit, public, and for-profit sector organizations to improve service delivery, cross-sector collaboration, and philanthropic engagement; and educate students through applied learning experiences in collective pursuit of healthier and more equitable communities.<sup>12</sup> In alignment with the university’s commitment to student and community engagement, UNCW’s Office of the Arts provides inspirational cultural programming for the campus community and the larger region.<sup>13</sup> The Office of the Arts curates the UNCW Presents Series, manages Kenan Auditorium, and advocates for the arts on UNCW's campus and in the Wilmington community, in collaboration with the five academic arts departments and community partners.

A partnership between the Department of Sociology and Criminology and the Office of Community Engagement seeks to aid in resolving the pain caused by crime and other harmful experiences. The Restorative

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<sup>8</sup> <https://uncw.edu/virgo/>

<sup>9</sup> <https://uncw.edu/engagement/>

<sup>10</sup> <https://uncw.edu/qeno/about-us.html>

<sup>11</sup> <https://uncw.edu/olli/about.html>

<sup>12</sup> <https://uncw.edu/engagement/socialimpact/index.html>

<sup>13</sup> <https://uncw.edu/arts/about.html>



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Justice Collaborative (RJC) at UNCW offers training and case facilitation to help people move towards repair, reconciliation, and transformation whenever possible.<sup>14</sup> Healing begins by acknowledging the harm, taking active responsibility for the harm, and meeting the (often complex) needs for people to feel whole again. It can occur in community, through deep dialogue in a safe setting, and the RJC aims to provide a platform for positive change and equity through restorative initiatives and training opportunities.

Restorative Justice is a set of practices that help to produce healing in situations where harms have occurred. With ancient roots in indigenous customs, African cultures, and revitalized in the modern world with trauma-informed practice and resiliency cultivation techniques, restorative practices help to promote equality, healing, and reconciliation in daily life and in situations with complex trauma. Furthermore, restorative justice practices explicitly promote racial justice, particularly as it relates to historical harms of institutional racism.

The Office of Student Leadership and Engagement (OSLE) creates opportunities in which UNCW students and fraternities and sororities can engage in their communities and serve others, practice leadership and inspire positive change, act congruently with their values, and celebrate excellence. By engaging in programs with the OSLE, students (both individually and collectively) will:

- Understand the relevance and importance of engagement in their community
- Develop their capacities to practice leadership for positive change
- Develop an awareness of their own values, while also learning to respect the diverse perspectives of others
- Increase their awareness, understanding, and ownership of community needs and social responsibility
- Make meaning of their experiences in order to develop and utilize their skills and abilities in myriad contexts
- Celebrate their own and others' learning and development

Examples of partnerships with OSLE include the Diaper Bank of North Carolina, Rise Up Community Farm, and Nourish NC. These partnerships provide unique opportunities for students to engage with a variety of non-profits outside of the university. Hawks Harvest is a cross-campus partnership for a student food bank. The UNCW Catholic Charities and OLSE work together to ensure food and hygiene products are stocked. Organizations throughout the campus host food drives throughout the year to support Hawks Harvest. The UNCW Sustainability Garden donates fresh produce at the end of each growing season. There is also a monthly Dean's Day of Service when students can join the Dean of Students to volunteer in an on- or off-campus project.

Students who would like to stay engaged over spring and fall break can join Service Break trips. These trips hosted by OSLE provide an affordable opportunity for students to immerse in civic engagement for a week. Each year, a group of students go to Atlanta, GA to volunteer in a non-profit called Restoration ATL. The Temple is an emergency and transitional facility for women and children in homelessness in hopes to guide the families to independence. Activities for the week will include preparing meals, dining with residents, and after-school programming with the children. An additional group travels based on the past year's events. For example. In the two years before the pandemic, the groups traveled to Houston, TX after Hurricane Harvey and the next year stayed in Wilmington to help with Hurricane Florence recovery.

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<sup>14</sup> <https://uncw.edu/engagement/rjc/index.html>



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The Office of Sustainability provided weekly opportunities to volunteer in the local community or on campus, prior to the COVID pandemic. It was important to the Office to ensure that students were making genuine connections with organizations and building their professional network. This semester, as a substitute for the volunteer opportunities, a weekly virtual event will bring together students and community leaders. This program is called Sustainabili-tea, with the idea that connections can be made over afternoon tea. A one-hour Zoom session will include the community leader of the week's career journey, a description of the organization they currently work for, and how students can get involved as a volunteer, intern, or employee.

### Other References and Related Resources

Common Data Set 2019-2020 Available:

Giving Flight to the Imagination Strategic Plan 2016-2021 (June 2016). Available <https://uncw.edu/strategicplan/documents/uncw%20strategic%20plan.pdf>

Indoor Air Quality Program (requested from EH&S)

Spill Prevention, Control and Countermeasure Plan (2019). (requested from EH&S)

UNCW Laboratory Management Plan (2018). (requested from EH&S)

UNCW Healthy Hawks Report (2020). Available: <https://uncw.edu/healthyhawks/documents/fall-2020-report.pdf>

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