

Post-Secondary Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

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 2015-2018

Public 4-Year Public 2-Year Private Non-Profit

Name of President/Chancellor: Jere W. Morehead

Official College or University Name: University of Georgia

College or University Street Mailing Address: 220 South Jackson Street Athens, Georgia 30602-1661

County: Clarke IPEDS Number: 139959

Telephone: 706-542-1214 Web site/URL: <u>http://uga.edu/</u>

E-mail: president@uga.edu

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

ceurate. President's/Chancellor's Signature

(President's/Chancellor's Signature)



Nominating Authorty'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: University System of Georgia

Name of Nominating Authority: Sandra Lynn Neuse, Associate Vice Chancellor

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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

Sah Lym Nere

Date: 1/27/2017

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your college or university is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and their underlying Elements. Then, include concrete examples for work in every Pillar and Element. Only institutions that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509 Expiration Date: March 31, 2018

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 and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

Summary Narrative: Provide a narrative describing your institution's efforts to reduce environmental impact and costs; improve student and staff health; and provide effective environmental and sustainability education. Focus on unique and innovative, yet replicable, practices and partnerships. Be sure to cover every ED-GRS Pillar and Element.

Summary Narrative – University of Georgia

Inspired leaders, stronger communities and thriving natural systems... that's our commitment. The University of Georgia is improving the world and addressing grand global challenges through better local solutions. Sustainability research, education, service and campus operations are hallmarks woven throughout UGA's 2020 Strategic Plan and we're making progress toward realizing our goals.

Reduce environmental impact and costs

Stewardship of natural resources and advancing campus sustainability is of strategic importance at UGA. We are currently using 31% less water per square foot than we were in 2007, with the goal of a 40% or greater reduction by 2020. To improve water quality on campus and beyond, more than 75 rain gardens and 16 cisterns for rain and condensate water harvesting and reuse are installed on the UGA-Athens campus. UGA exceeded the Governor's Energy Challenge and is currently using 20% less energy per square foot than we were in 2007, with a goal of 25% or greater reduction by 2020. Infrastructure improvements from centralized chillers at District Energy Plants to steam pit insulation and LED lighting retrofits lead to energy savings and cost reduction, and UGA has installed more than one megawatt of renewable solar energy on its main campus. UGA is striving to reduce the amount of waste sent to local landfills by 65% by 2020. We have a long way to go to achieve this goal and we're making progress by providing infrastructure that makes it equally as easy to recycle as it is to throw something away on campus and by composting all organic materials from every dining hall. UGA operates the largest campus transit system in the country with over 11 million annual riders and we plan to convert one-third of our buses to all-electric vehicles in 2017, significantly reducing tailpipe emissions, maintenance and operating costs. Overall, UGA has reduced greenhouse gas emissions by more than 8% since 2010. These initiatives and others are helping UGA to be a better neighbor and responsible steward of natural and financial resources.

Improve student and staff health

UGA remains committed to the health and wellbeing of its students, faculty, staff and visitors. Infrastructure, planning and design initiatives as well as health and wellness programs create healthy interior and exterior environments and opportunities for personal wellness. The entire UGA Athens campus is designated an arboretum and Tree Campus USA. In the last two decades, more than 60 acres of new green space have been created in place of previously paved areas to create an increasingly pedestrian-friendly and ecologically functional landscape. UGA is designated a Bronze-level Bicycle Friendly University with over 16 miles of bike lanes, trails and shared use paths on campus and over 600 participants in the Bulldog Bikes bike share program. The campus is tobacco-free and the decommissioning of UGA's only coal-fired boiler in 2015 further contributes to healthy outdoor air throughout the community. Campus buildings are maintained through a certified green cleaning program to provide healthy interior environments for all occupants. Approximately 20% of all food items sold by UGA Food Services comes from Georgia or bordering states and healthy, nutritious options are available at every meal in every dining hall.

UGA students are directly involved in growing and providing wholesome foods to community members in need through the student-run UGArden Education & Demonstration Farm and UGA Campus Kitchen. The Be Well UGA program promotes emotional, intellectual, physical, environmental, social and spiritual well-being for all at UGA. Numerous programs and services are available to students experiencing challenging situations, such as EMBARK UGA to increase college access and retention for youth who have experienced foster care or homelessness, the UGA Student Food Pantry and Hygiene Closet, and the reCYCLE program which provides refurbished bicycles free-of-charge to students in need of affordable transportation options. UGA's Work/Life Balance program provides a central location for relevant services and opportunities to assist faculty and staff in managing life's challenges from workplace stress to caring for family members. UGA Recreational Sports promotes healthy lifestyle choices by providing development, growth, and education for the campus and local community, including engaging outdoor recreation trips and clinics.

Provide effective environmental and sustainability education

Education is at the core of all that we do. UGA is committed to solving grand challenges for our state and the world, and to training students capable of solving real-world, multifaceted problems that do not have simple solutions. All undergraduate students must satisfy the Environmental Awareness Requirement including a basic understanding of the interactions between human activity and the environment at local, regional, or global scales. All students must also engage in at least one experiential learning activity that enhances learning and positions them for success after graduation. In addition to numerous graduate and undergraduate degree programs related to sustainability, the Interdisciplinary Certificate in Sustainability provides students with a foundation in the principles and practice of social, environmental and economic sustainability - as well as a valued credential to enhance their competitiveness in the job market. Overall, UGA offers more than 430 sustainability-related courses as well as faculty resources to promote integration of sustainability across the curriculum. The Office of Sustainability Student Internship Program provides experiential learning, leadership and professional development while making a positive and tangible impact within the UGA and Athens communities. Since 2010, the Office of Sustainability has provided over 250 internship opportunities to students in 62 different degree programs for a total of over 31,000 hours of service. The Office of Sustainability has also provided \$210,000 in Campus Sustainability Grants to fund 58 student-led projects, many of which have become ongoing operational and experiential learning programs. Overall, UGA researchers garnered over \$185M in external research funding in 2015 to solve grand challenges related to sustainable agriculture, water resources, bioenergy, waste reduction, public health, and much more. Current sustainability-focused research at UGA ranges from developing drought tolerant sorghum that enhances cereal food crops and creating compostable plastic packaging from plants, to understanding drivers in outbreaks of infectious disease and documenting fetal brain abnormalities from the Zika virus.

Pillar I: Reduced Environmental Impact and Costs

Narrative: Describe how your college or university is reducing environmental impact and costs by reducing or eliminating greenhouse gas emissions; improving water quality, efficiency, and conservation; reducing waste production; and using alternative transportation. Identify your institution's energy-efficient facilities and practices, ecologically beneficial uses of grounds, and methods of disposal for solid and hazardous wastes.

Reduced Environmental Impact and Costs at UGA

Stewardship of natural resources and advancing campus sustainability is of strategic importance to the University of Georgia. Following is a partial list of initiatives underway at UGA.

Greenhouse Gas Emissions

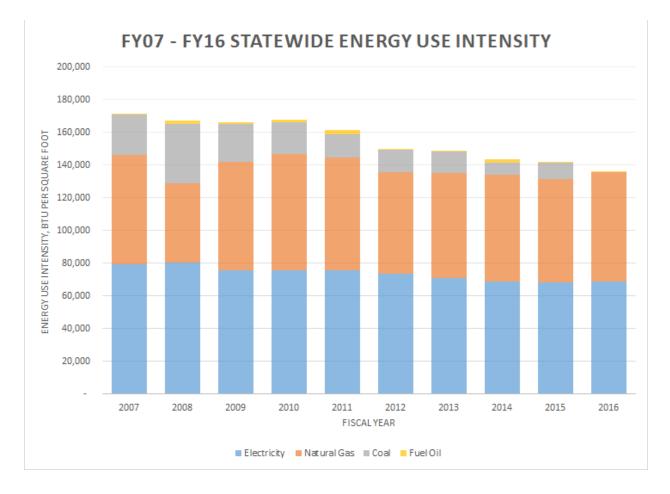
The University of Georgia's greenhouse gas or CO₂ equivalent emissions come from on-campus sources such as the central steam plant, solid waste and campus fleet vehicles, as well as off-campus sources such as purchased electricity and student, faculty and staff commuting. Members of the UGA community continue to engage in projects and programs that reduce the use of fossil fuels and advance campus sustainability, typically with a direct correlation to avoided costs. In fiscal year 2010, UGA campuses and facilities throughout the state of Georgia contributed approximately 270,000 net tonnes of CO₂e emissions, including offsets provided by UGA's managed forest lands. By FY2014, UGA's net emissions decreased by 8% to approximately 249,000 tonnes. For more information, see the <u>UGA Campus</u> <u>Sustainability Plan, Part One - Climate (http://sustainability.uga.edu/operations/climate/)</u>.

Energy Conservation

UGA has already exceeded the Governor's Energy Challenge to reduce energy use intensity (EUI) per square foot by 15% by the year 2020 from a 2007 baseline. UGA's 2020 Strategic Plan calls for a 25% reduction in EUI by 2020. As of the end of fiscal year 2016, UGA had reduced its statewide energy consumption per square foot by just over 20% through investments in the campus energy infrastructure, energy efficiency upgrades in campus buildings and energy efficient design in new construction and renovations.

Notable energy conservation initiatives include de-commissioning old, inefficient chillers and consolidating chiller capacity in high-efficiency district energy plants (DEPs), large-scale replacement of older fluorescent lighting with LED technology, using aerial infrared thermography to locate underground steam distribution system components for repair, holiday heating and cooling setbacks, and decommissioning an aging coal boiler from the central steam plant.

The following chart depicts UGA's energy use intensity, broken down by energy source, for fiscal years 2007 through 2016. The energy data includes the main Athens campus as well as campuses in Tifton and Griffin, GA.



Green Building

UGA Design and Construction Standards can be found at <u>https://www.architects.uga.edu/standards</u>. Sustainable design requirements are embedded throughout nearly every section of UGA's standards. In addition, Section 018100 Facility Performance Requirements states:

"No specific green building rating system certification is required by UGA; certification is pursued on a per project basis. Based on experience, capital improvement projects that meet the intent and requirements of UGA Design & Construction Standards generally achieve Leadership in Energy & Environmental Design (LEED) Gold level certification or equivalent, Silver or equivalent at a minimum. In the state of Georgia, we also currently measure sustainability achievements on construction projects through the Georgia Peach Green Building Certification program. The design and construction of a new building shall be for at least a fifty-year life with emphasis on minimum life cycle costs rather than low first costs."

UGA Facility Performance Requirements include specific targets related to Energy Performance (10% or greater energy savings over ASHRAE 90.1-2010), Renewable Energy (life cycle analysis of meeting 10% building's energy demand through onsite renewable energy generation), Water Conservation (provide options for 10% and 20% water use reduction over state of Georgia code), Stormwater and Condensate (provide options for water collection and reuse; incorporate stormwater BMPs to exceed jurisdictional water quality standards), Waste & Recycling (goal of reducing waste by 65%; provide convenient recycling facilities for occupants and facilities management staff).

The following major capital projects - a total of 570,000 square feet - are LEED Certified:

- Tate Expansion (Gold)
- Residence Hall Building 1516 (Gold)
- Pharmacy South Addition (Silver)
- Georgia Museum of Art Addition (Gold)
- Special Collections Library (Gold)
- Jackson Street Building (Gold)

UGA restores and reuses historic structures to preserve the campus heritage and sense of place. More than twelve buildings - on historic North Campus and beyond - have been rehabilitated for adaptive reuse, conserving raw materials and embodied energy while minimizing landfill waste.

Renewable Energy

In 2015 UGA partnered with Georgia Power to install a 1-megawatt solar array in an underutilized agricultural field next to the UGA Club Sports Complex on South Milledge Avenue. The project includes various technologies for tracking patterns of the sun to maximize the output of electricity, providing research opportunities for students in the UGA College of Engineering and others. The site was fully activated in early 2016, providing electricity equivalent to that used by more than 100 households per year in Georgia.

An 18-kilowatt solar electric system was installed in 2012 on the roof of the Jackson Street Building, which houses programs of the College of Environment & Design. Seventy-two photovoltaic panels harness energy to generate about 30,000 kilowatt-hours of electricity annually, roughly 3-5% of the electricity use in the building, and reducing greenhouse gas emissions equivalent to removing five personal vehicles from our local roadways every year.

Additional renewable energy demonstration projects include a solar charging table on UGA's north campus and a free-standing solar array at UGArden. The ConnecTable solar charging station provides an opportunity for students, faculty and staff to charge devices and work outdoors at Herty Field, one of UGA's treasured green spaces. The table was installed in 2015 and is capable of charging between 75 and 150 mobile devices per day, even on cloudy days, with the use of a 530-watt solar array and 225 amphour gel cell battery. A free-standing solar array designed in 2013 by a team of UGA Engineering students helps to power a farm building and an electric vehicle at the UGArden Teaching & Demonstration Farm. Both projects were initiated and funded through the UGA Campus Sustainability Grants program.

Water Quality and Campus Grounds

UGA continues to develop—and redevelop—a physical campus that functions as a living laboratory for sustainability and serves as a filter through which stormwater leaves our campus cleaner than it arrives. Green infrastructure practices on our campuses help to offset negative effects of urbanization on water quality. UGA has removed over 1.5 million square feet of asphalt and installed over 60 acres of new campus green space. Herty Field, D.W. Brooks Mall and many other campus green spaces were built in place of previously paved parking lots and roadways. We have installed over 70 rain gardens throughout the UGA Athens Campus to slow and filter stormwater runoff. More than five green roofs are installed on the UGA Athens Campus to mitigate runoff and reduce urban heat island effect; the green roof on the Geology-Geography Building, originally installed in the 1960's to support climate research, now includes a food-producing urban garden, and the West Lawn at UGA's Tate Center is an intensive green roof and popular pedestrian green space. UGA works closely with Athens-Clarke County and strives to serve as a demonstration of effective water stewardship within our community and region.

UGA is working toward implementation of a 9-element watershed management plan to improve and restore the five sub-watersheds on the UGA Athens campus. UGA was sited upon the "copious springs of excellent water" flowing from Town Spring. The historic spring has been partially restored to reveal original bedrock, support a native wetland plant community, and communicate a narrative of the early development of UGA and the city of Athens. Tanyard Branch flows past Bolton Dining Hall and directly under Sanford Stadium. In 2003, the town-gown Lumpkin Street Drainage Improvements project-with 15 rain gardens designed to improve the health of Tanyard Creek—was the largest known street-edge water quality project in the country. The Chew Crew prescribed grazing project was later established to remove invasive plants and engage the community in restoring the Tanyard watershed. Lilly Branch flows underground beneath Foley Field and is exposed near Joe Frank Harris Commons and the Lamar Dodd School of Art on UGA's east campus. Phased restoration of daylighted portions of Lilly Branch is underway and a crowd-sourced student-initiated landscape project also resulted in the virtual daylighting of a section of Lilly Branch, revealing to passersby the stream flowing beneath their feet. UGA's Lake Herrick, a 15-acre lake originally constructed in 1982, was closed in 2002 due to water quality concerns. An interdisciplinary effort is currently underway to restore water quality in the Lake Herrick watershed with a goal to reopen the lake for experiential learning, research and limited recreation as early as 2018.

Campus-wide sustainable landscaping initiatives include greenspace creation, rain and condensate water harvesting and reuse, porous paving, rain gardens, urban tree care, proper mulching, smart and efficient irrigation, native and drought resistant plantings, integrated pest management to limit pesticide use, and a robust on-site compost operation. All organic material from all five of UGA's dining halls are combined with campus leaf and limb debris to create approximately 700 tons of nutrient-rich soil amendment annually for restoring campus and soils.

Watershed UGA is a campus-wide experiential learning initiative engaging students, faculty, staff and community members in sustainability through watersheds. Academics, practitioners and citizen scientis are collaborating to monitor, protect, restore and communicate benefits of campus and local watersheds.

Water Conservation

UGA serves as a leader in the state and region for water resource management, and has received numerous awards for the success of its Every Drop Counts campaign. As of the end of Fiscal Year 2016, UGA had reduced its statewide water use intensity per square foot by 31% compared to FY 2007, and total water consumption by 20% over that time. UGA's Strategic Plan calls for a 40% reduction in water use intensity by 2020.

Efficient plumbing fixtures such as ultra-low flow toilets and urinals, sink aerators and low-flow shower heads are installed throughout campus. The campus community is urged to report leaks and they are fixed immediately. UGA Food Services eliminated trays from all five campus dining commons in 2015. With no trays to wash and significant reduction in dishes and cups used per meal, this directly results in hot water savings of approximately 150,000 gallons per year. UGA Design and Construction Standards prohibit the use of domestic water in once-through water-cooled equipment, including for HVAC, food service, and laboratory equipment. Beneath the ground between Tate Student Center and the Miller Learning Center, a 75,000-gallon cistern collects rain and condensate water to flush toilets in the Tate Center and irrigate the surrounding landscapes. Overall, UGA has installed more than 15 cisterns with a total storage capacity greater than 530,000 gallons. UGA Facilities Management Division employs aerial infrared thermography to detect underground leaks in the steam distribution and condensate return pipe networks. This has proven to be a highly cost-effective tool to pinpoint leaks for repair, with considerable water (and energy) savings as a result.

Waste Reduction

UGA is striving to reduce the amount of waste sent to local landfills by 65% by 2020. We have a long way to go to achieve this goal and we're making progress by providing infrastructure that makes it equally as easy to recycle as it is to throw something away on campus and by composting all organic materials from every dining hall.

In 2012 UGA converted to single-stream recycling in support of Athens-Clarke County's recycling program. During 2014 through 2016, UGA installed 1,538 waste reduction stations in 150 buildings with co-located Landfill and Mixed Recyclables bins. By ensuring that there is always a recycling bin next to every landfill bin and vice-versa, UGA is striving to make it just as easy to recycle as it is to throw something away. In 2015 and 2016 UGA removed over 300 outdoor trash cans from campus, and installed 80 solar-powered Big Belly waste reduction stations, each with co-located Landfill and Mixed Recyclables receptacles. The Big Belly units compact the contents and send an alert when they are full. Labor and fuel efficiency are improved because staff only need to service bins that need to be emptied.

Trayless dining in UGA Dining Halls, in addition to saving water, avoids an estimated \$2 million per year in food waste and the savings has been passed on to meal plan customers. Still, nearly 10,000 pounds of pre- and post-consumer food scraps (as well as napkins, paper straws, and other compostable wares) are collected, pulped at each campus dining commons, and transported to the UGA Bioconversion compost facility every week. An additional 6,000 pounds per year of food scraps are added through the student-run Departmental Composting Program, which allows people in departmental break rooms and student lounges to divert their coffee grounds, fruit peels, and other food scraps from the landfill. Finished compost is used to restore campus soils and enrich campus and community gardens.

Transportation

UGA operates the largest campus transit system in the United States, and is responsible for the city of Athens ranking fourth in the nation for per capita ridership (behind New York City, San Francisco, and Washington, DC). Annual financial contributions from UGA Transportation & Parking enable individual members of the UGA community to ride Athens Transit free of charge. UGA Campus Transit ridership increased 22% from 9 million to 11 million passengers between 2010 and 2015. In 2016 UGA was awarded a \$10 million State of Georgia Go Transit! Grant to replace one-third third of the diesel bus fleet with all-electric vehicles in 2017.

In November 2016 UGA, received a Bronze Bicycle Friendly University award by the League of American Bicyclists for its commitment to safe, enjoyable and convenient bicycling for students, faculty, staff and visitors. To date, UGA has over 16 miles of bike lanes, trails and shared use paths on campus; over 600 members of the UGA community participate in Bulldog Bikes bike share; and more than 20 students have received refurbished bikes through the reCYCLE bike donation program. UGA holds popup bike safety checks and has made improvements to campus bicycle infrastructure including an innovative contraflow bike lane and green bike box on Sanford Drive.

UGA's Complete Streets Committee coordinates and guides infrastructure improvements to provide safe and convenient options for all users of the campus transportation system, including motorists, bicyclists, transit vehicles and their passengers, and pedestrians of all ages and abilities. The committee features representatives from Facilities Planning, Facilities Management Division, Transportation and Parking, UGA Police, Sustainability, transportation researchers, student government, county government, and community partners.

Pillar 2: Improve the health and wellness of students, faculty, and staff

Narrative: Describe how your college or university improves the health and wellness of students, faculty and staff by integrating a campus-wide environmental health program and promoting sound health and wellness practices. You should discuss integrated pest management, contaminant controls and ventilation, asthma controls, indoor air quality, moisture control, and chemical management. Address the amount and type of outdoor time that your students and staff have, as well as the types of fresh, local, and organic food that they eat. Other components you may want to include are: health education, health services, counseling, psychological and social services, staff health promotion and family and community involvement.

Improved health and wellness at UGA - Infrastructure, Planning & Design Initiatives

Physical Master Plan

UGA's campus master plan is predicated on nine guiding principles including to create the optimal student environment and to protect and enhance natural resources. The campus master plan shifts automobiles to the perimeter of campus and redevelops existing impervious surfaces to establish connected, ecologically functional pedestrian green spaces that encourage quality time outdoors and allow for walking and cycling to from and within campus. To date, over 60 acres of new campus green space have been created at UGA. (https://www.architects.uga.edu/)

Outdoor Air Quality

UGA has taken several steps to contribute to cleaner air in Athens, reducing emissions of harmful pollutants that can cause asthma, lung cancer, and other respiratory issues. UGA decommissioned its only coal-fired boiler in 2015, eliminating approximately 40 tons of particulates and 260 tons of SO₂ emissions per year. Consistent with other institutions in the University System of Georgia, UGA's tobacco-free campus policy contributes to a healthier exterior environment without exposure to secondhand smoke. UGA fleet vehicles are subject to a no-idling policy to prevent fuel waste and reduce gasoline and diesel tailpipe emissions on campus. Two-thirds of the Campus Transit bus fleet is comprised of post-2007 vehicles that adhere to the most recent EPA standards for particulates and NO_x emissions. In 2016 UGA was awarded a \$10 million grant to replace the oldest third of the fleet with all-electric buses, eliminating tailpipe emissions for those vehicles. The new buses will be deployed in 2017.

Campus Arboretum

UGA is committed to ensuring the long-term health and contribution of trees to the campus environment. The University of Georgia Athens campus was designated as an arboretum in 2000, providing opportunities for academics and research as well as a healthy exterior environment. Walking maps of the UGA Campus Arboretum are available on the UGA Mobile App. UGA has also been recognized by the Arbor Day Foundation as a Tree Campus USA each year since 2010. This program recognizes campuses that have a tree advisory committee, a campus tree care plan, a specifically-funded tree program, annual Arbor Day observances, and annual service-learning outreach projects. The University remains committed to planting a maintaining mature canopy trees in part through the Sustainable Tree Trust Program established with Select Trees. More information on UGA's Campus Arboretum can be found at: <u>http://www.caes.uga.edu/departments/horticulture/research/uga-arboretumwalking-tour-of-trees.html</u>

Integrated Pest Management

UGA seeks to minimize the use of potentially harmful fertilizers, herbicides and insecticides. Native plantings are prioritized and landscapes that require significant resources are minimized. When treatment is required, spot treatment is utilized versus blanket applications when feasible. Seasonal color beds are being managed organically to minimize unwanted weeds and pests while maintaining an environment for beneficial insects. UGA utilizes IPM in both interior and exterior applications. UGA's 710-acre campus, is managed in accordance with EPA's four-tiered plan through the University of Georgia Grounds Department Integrated Pest Management Program. Within resident instruction buildings, an IPM program controls insects by removing food and water sources, introduces the campus to a holistic view of pest control measures, and utilizes chemical spraying as a last resort.

Indoor Air Quality

Strict ventilation, moisture control, chemical management and green cleaning policies (as described in other sections) exemplify ongoing management practices that contribute to healthy indoor air in UGA buildings. For example, walk-off mats are utilized to control contaminants at each point of entry in UGA buildings. UGA's Design and Construction Standards also require low volatile organic compound (VOC) materials to be used in building interiors, and zero VOC products are to be used when available. Architectural coatings, adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and any other primers shall not exceed VOC limits established by the South Coast Air Quality Management (SCAQMD). Paints and coatings shall not exceed VOC limits established in the Green Seal Standard.

Hard surface flooring products shall be FloorScore certified. Carpeting, including pad or backing, shall meet or exceed the requirements of Green Label Plus, set by the Carpet and Rug Institute. Composite wood and agrifiber products that are part of the base building elements (not furniture or seating) shall not contain any added ureaformaldehyde resins. UGA Facility Performance Requirements address interior moisture control with the requirement that cooling equipment shall be selected to achieve 50% relative humidity at design cooling conditions and maximum space humidity shall not exceed 60% relative humidity. UGA Design and Construction Standards can be found at: https://www.architects.uga.edu/standards

Chemical Management / Green Cleaning

Chemicals are effectively managed in UGA buildings from daily cleaning practices in all resident instruction facilities to management of UGA laboratories and art studios. In 2006, UGA implemented an award-winning, Cleaning Industry Management Standard (CIMS) Certified (with honors) Green Cleaning Program on campus. The program reduced the previously used 351 cleaning chemicals to only 3 non-toxic cleaning products. The program saves money through purchasing supplies in bulk, creates healthier interior environments, and reduces absenteeism due to health concerns such as asthma and headaches. In 2011, UGA updated its green cleaning certification and was the first university in the US to receive CIMS – Green Building Certification. All resident instruction facilities at UGA are managed using certified green cleaning products and procedures. The UGA Lamar Dodd School of Art has implemented the innovative Air Purifying Plant Proliferation Project (A4P) to minimize chemical use and improve air quality in art studios, including eliminating or reducing printmaking chemicals, use of vegetable-based inks, and installing interior plants to improve indoor air.

Green Lab Program

The UGA Green Lab Program supports world-class science by engaging researchers in best practices to reduce energy, water and waste while enhancing safety and environmental compliance. UGA's program, modeled after successful programs at UC Boulder and UC Davis, is set to become one of the largest Green Lab Programs in the country serving nearly 2000 research labs on main campus. (<u>http://sustainability.uga.edu/get-involved/labs/</u>)

Research labs use 5-10 times the water, energy and chemicals of an office or classroom and are a massive consumer of resources. Energy and Water initiatives include a Shut the Sash campaign for fume hoods, fume hood hibernation, refined fume hood face velocity test protocols, a "temperature tuning" campaign for ultra-low temperature freezers, refrigeration equipment repair tracking, equipment trade-in incentives, a cold room upgrade program, and autoclave leak detection. Waste Reduction and Recycling initiatives include laboratory plastics recycling, composting animal cage bedding, and guidance for reduced packaging. Green Chemistry and Safety initiatives include chemical substitution and chemical sharing, both aimed at reducing UGA's costly annual hazardous waste disposal.

Improved health and wellness at UGA - Health & Wellness Programs

Be Well UGA / Healthy Dawg Program

The Be Well UGA / Healthy Dawg Program defines health as multidimensional including emotional, intellectual, physical, environmental, social and spiritual. Healthy behaviors enhance the general condition of the body or mind in order to increase the ability to live life fully with vitality and meaning. All members of the UGA community are eligible and encouraged to participate. (https://www.uhs.uga.edu/about/healthy-dawg)

Embark UGA

The mission of EMBARK is to increase college access and retention for youth who have experienced foster care or homelessness. By creating a network of support on campus and across the state, EMBARK aims to improve the chances for every student to complete a degree or certificate program at one of the over 50 USG or TCSG institutions in Georgia. (https://embarkgeorgia.org/)

UGA Student Care and Outreach

The Mission of Student Care and Outreach is to provide individualized assistance to students experiencing hardship circumstances, support to faculty and staff working with students in distress, and guidance to parents seeking help and information on behalf of their students. (<u>http://dos.uga.edu/sco/</u>) Student Emergency Fund

Student Affairs Student Emergency Fund

The UGA Student Affairs Student Emergency Fund, administered by the Office of the Vice President for Student Affairs, provides limited financial assistance to enrolled students facing temporary hardship related to an emergency situation, such as an accident, illness, death of a family member, natural disaster, or other unforeseen circumstance. (https://studentaffairs.uga.edu/vp/content_page/emergency-fund)

Counseling and Psychiatric Services

CAPS provides a wide array of mental health services at reduced costs to UGA students. (https://www.uhs.uga.edu/caps)

UGA Student Food Pantry

The UGA Student Food Pantry is a student-led initiative to address the troubling situation of student hunger. The Pantry serves an average of 100 students per day and no one is ever asked to provide proof of need. The pantry also strives to provide information about other resources offered on campus and in the community. (https://greeklife.uga.edu/content_page/uga-food-pantry-content-page)

UGA Hygiene Closet

The UGA Hygiene Closet supplements food programs to ease the burdens of students in impoverished situations so they can focus on their studies and make the most of all the opportunities UGA has to offer instead of worrying about essential day-to-day personal hygiene items. (http://www.fcs.uga.edu/ssac/hygiene-closet)

reCYCLE Program

UGA's reCYCLE Program provides refurbished bicycles to students in financial hardship. The program is a partnership between the Office of Sustainability, Transportation and Parking Services, UGAPD, and BikeAthens. Students may obtain a referral for a free bicycle through one of several counseling services on campus, including EMBARK, a program of the J.W. Fanning Institute that serves homeless students. (http://sustainability.uga.edu/operations/transportation/uga-recycle/)

Local & Nutritious Foods

Approximately 20% of all food items sold by UGA Food Services comes from Georgia or bordering states and healthy, nutritious options are available at every meal in every dining hall. Nutrition Services are available free of charge to students on the UGA Meal Plan. Meal Plan Participants can discuss personal nutrition goals or concerns with a Registered Dietitian through one-on-one nutrition counseling. Students can also take an eight-session Eating Smart course and learn how to develop a healthy lifestyle through eating right and exercising. Nutrition Education Stations are located in each dining commons and are supplied with valuable nutrition information for a healthy lifestyle. (<u>http://foodservice.uga.edu/</u>)

UGA students are directly involved in growing and providing wholesome foods to community members in need. Fresh, organically grown produce from the student-run UGArden Education & Demonstration Farm is prepared into nutritious meals by students in UGA Campus Kitchen. More than 12,000 meals are delivered to community members annually through a partnership with Athens Area Council on Aging and the Grandparents Raising Grandchildren Program.

Work/Life Balance

The Human Resources Department at the University of Georgia recognizes the daily challenge of balancing personal, work, and family life. The work/life balance program provides a central location for relevant services and opportunities available at UGA and in the community to assist faculty and staff in managing life's challenges from workplace stress to caring for a young child or other family members. (http://www.hr.uga.edu/work-life-balance)

UGA Recreational Sports

The UGA Department of Recreational Sports promotes healthy lifestyle choices by providing development, growth, and education for the University of Georgia through the spirit of recreation. The 440,000 square foot Ramsey Student Center is one of the largest student athletic recreation facilities in the United States. Outdoor trips and clinics are also available to all students, faculty, staff, and members of the Athens community including a challenge course, flatwater and whitewater paddling, rafting, backpacking, hiking, stand-up paddleboard trips, caving, rock climbing, snorkeling, and more. (https://recsports.uga.edu/site)

Pillar 3: Effective Environmental and Sustainability Education

Narrative: Describe how your college or university provides effective environmental and sustainability education by incorporating STEM, civic skills, and green career pathways. Provide examples of interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems. Demonstrate how your institution uses the environment and sustainability to develop STEM content, knowledge, and thinking skills. You should also discuss how your institution develops and applies civic knowledge and skills to environmental and sustainability education.

Effective Environmental and Sustainability Education at UGA

Sustainability education, research and service are hallmarks of UGA's 2020 Strategic Plan. UGA is committed to solving grand challenges for our state and the world, and to training students capable of solving real-world, multifaceted problems that do not have simple solutions. Overall, UGA offers more than 430 sustainability-related courses across multiple academic disciplines and numerous interdisciplinary institutes and centers focused on sustainability research. (For more information on UGA's Strategic Plan, visit: <u>http://provost.uga.edu/documents/UGA_Strategic_Plan_2020_-</u>October 30_2012.pdf)

Sustainability Education Initiatives at UGA

Interdisciplinary Certificate in Sustainability

Established in February 2016, now includes over 73 students from 11 schools/colleges, the Undergraduate Interdisciplinary Certificate in Sustainability provides students with a foundation in the principles and practice of social, environmental and economic sustainability - as well as a valued credential to enhance their competitiveness in today's job market. The Certificate incorporates peer mentoring and culminates in an applied capstone project with a reflective portfolio. A similar Graduate-level Certificate is currently in development and is anticipated to be launched in before fall semester 2017. (https://sustain.uga.edu/)

Environmental Awareness Requirement

Unsustainable environmental practices pose serious and pressing threats to the health of human society and the earth's ecosystems. U.S. citizens and Georgia residents will increasingly need to make decisions about environmental issues and policies. In recognition of this, the University of Georgia is committed to educating its undergraduate students about environmental problems and the need to seek solutions to them. The causes and consequences of environmental challenges are complex and can be studied from a variety of disciplinary and interdisciplinary perspectives. To achieve the goals of the Environmental Awareness (EA) Requirement, every University of Georgia undergraduate student must acquire a basic understanding of: The interactions between human activity and the environment at local, regional, or global scales; OR The ethical, cultural, economic, or political forces that affect environmental problems and policies.

(http://www.bulletin.uga.edu/Bulletin_Files/EnvironmentalAwarenessReqPolicyStatement.html)

Experiential Learning Requirement

Experiential learning at the University of Georgia gives students hands-on opportunities to connect their academic foundations to the world beyond the classroom, through creative endeavors, study abroad and field schools, internship and leadership opportunities, faculty-mentored research, and service-learning. All UGA students are required to engage in at least one experiential learning activity that enhance learning and position them for success after graduation. (https://www.experienceuga.com/)

Sustainability Across Curriculum Faculty Workshops

The Office of Sustainability, Odum School of Ecology, OVPI and others host the annual Sustainability Across Curriculum Faculty workshop in May. To date, over 90 faculty from nearly every school and college at UGA have participated in this workshop, transforming syllabi in over 100 academic courses at UGA, several of which were offered this semester. <u>http://sustainability.uga.edu/academics/faculty/</u>)

Sustainability Faculty Learning Community

In order to move towards a healthy, equitable society while maintaining earth's basic systems, educators must cross disciplinary divides and infuse sustainability principles into every discipline, teaching our students to approach problems holistically and to integrate social, economic, and environmental concerns as they apply knowledge learned. The Sustainability Across the Curriculum FLC functions as a working group on sustainability in the curriculum. All disciplines are welcome. (http://ctl.uga.edu/flc/current-flcs)

Archway Partnership

Founded on the principles of collaboration and knowledge-based decision-making, the Archway Partnership empowers communities to address long-standing and critical self-identified community and economic development needs. Archway Partnership communities have addressed issues related to economic development, education, workforce development, leadership, health and welfare, overall quality of life, and more. The UGA Archway partnership provides Georgia communities with faculty and student expertise who in turn gain practical experience outside of the classroom. (http://www.archwaypartnership.uga.edu/)

Watershed UGA

Watershed UGA is a campus-wide interdisciplinary and experiential learning initiative to engage students in restoration of our natural waterways and enhance the campus living laboratory through teaching, research and service. To date, more than 99 faculty and 70 academic courses have participated. (https://www.watershed.uga.edu/)

Office of Sustainability Internship Program

The Office of Sustainability Student Internship Program—a collaboration with UGA's_Fanning Institute for Leadership Development—provides opportunities for experiential learning, leadership and professional development while making a positive and tangible impact within the University of Georgia and Athens communities. To date, the Office of Sustainability has provided over 250 internship opportunities to students 62 different degree programs for a total of over 31,000 hours of service. (http://sustainability.uga.edu/get-involved/internships/)

Campus Sustainability Grants Program

Funded by the Student Green Fee, competitive grants of up to \$5,000 are available to current UGA students to initiate projects that advance sustainability through education, research, service, and campus operations. Successful projects address priorities outlined in UGA's 2020 Strategic Plan to actively conserve resources, educate the campus community, influence positive action for people and the environment, and provide useful research data to inform future campus sustainability efforts. To date, the Office of Sustainability has provided \$210,000 to fund 58 student-led projects, many of which have become ongoing operational and experiential learning programs. (http://sustainability.uga.edu/get-involved/sustainability-grants/)

Sustainability + Arts

Sustainability-focused events and activities are incorporated into UGA's annual Spotlight on the Arts. In 2016, a Daylighting the Watershed Design Competition was launched to increase awareness and restore Tanyard Creek and Lilly Branch on UGA's campus. In addition, the Office of Sustainability and Lamar Dodd School of Art established an Artist in Residence Internship position to integrate art students into campus operations.

UGArden Education & Demonstration Farm

UGArden provides leadership in sustainable agriculture and localized food systems. By integrating academic curriculum with the University of Georgia's land resources and the local food economy, UGArden provides a unique laboratory for understanding and developing local-scale solutions to global

food challenges while engaging a wide range of participants from diverse personal and academic backgrounds. (<u>http://ugarden.uga.edu/</u>)

Campus Kitchen

The Campus Kitchen at UGA is a student-powered hunger relief program of the Office of Service-Learning. Each week, students transform unused food from dining halls, grocery stores, restaurants, and farmer's markets into meals that are delivered to local agencies serving those in need in Athens, GA. By taking the initiative to run a community kitchen, students develop entrepreneurial and leadership skills, along with a commitment to serve their community. The Campus Kitchen at UGA goes beyond meals by using food as a tool to participate in nutrition education, combat senior isolation, and create dialogues on food waste and hunger in the UGA community. (http://servicelearning.uga.edu/campuskitchen/)

Chew Crew

Chew Crew is a student-led effort to restore neglected green spaces on UGA's campus to their former glory using prescribed grazing. There are two Chew Crew enclosures on campus, one at Tanyard Creek and one at Driftmier Woods, where we set the goats free to do what they do best - chew! The goats eat both invasive and native plants and then cleared areas are sowed afterwards with the seeds of native species in order to re-naturalize the area. (https://www.facebook.com/UGAChewCrew/)

Sustainability Science & Research Initiatives at UGA

UGA researchers garnered over \$185M in external research funding last year toward solving grand challenges through meaningful science related to sustainable agriculture, water resources, bioenergy, waste reduction, public health, and much more. Current sustainability-focused research ranges from developing drought tolerant sorghum that enhances cereal food crops and creating compostable plastic packaging from plants, to understanding drivers in outbreaks of infectious disease and documenting fetal brain abnormalities from the Zika virus. Sustainability research at UGA is supported by numerous centers and initiatives with areas of inquiry as diverse as discovering new sources of energy, mitigating environmental impacts of human activity, enhancing agricultural practices, managing and mitigating climate change, and eliminating obesity.

A partial list of University-wide research centers and programs includes:

Center for Community Design and Preservation

The CCDP delivers conceptual community design services by utilizing a mix of faculty, professional staff and students, which helps leverage professional assistance to implement projects. As recipient communities receive high quality design services they could not otherwise afford, students receive the practical hands-on experience that makes them more marketable as graduates. (http://www.ced.uga.edu/services_outreach/ccdp/)

Center for Integrative Conservation Research (CICR)

The Center for Integrative Conservation Research (CICR) responds, through research and training, to one of the key challenges facing conservation today: identifying conservation practices and policies that simultaneously preserve biodiversity and serve human needs. CICR promotes the synthesis of social and biological science research methods and conceptual approaches in conservation through an integrative approach to conservation research. With the remarkable breadth of conservation expertise at UGA, CICR serves as a bridge between faculty and students from different disciplines and units on campus. (http://cicr.uga.edu/)

Center for Invasive Species and Ecosystem Health

The mission of the Center for Invasive Species & Ecosystem Health is to serve a lead role in development, consolidation and dissemination of information and programs focused on invasive species, forest health, natural resource and agricultural management through technology development, program implementation, training, applied research and public awareness at the state, regional, national and international levels. (http://www.bugwood.org/)

Georgia Center for Urban Agriculture

The Center for Urban Agriculture seeks to empower Georgians through UGA Extension with programs in community and school gardens, master gardening, pest management, urban forestry, and more. (https://ugaurbanag.com/)

Georgia Institute for Climate and Society (GICS)

The Georgia Initiative for Climate & Society is a network of UGA scientists and experts who have joined together to understand the changing climate on a global and local scale and to develop strategies, solutions, information, and tools that address the climate (<u>http://climateandsociety.ovpr.uga.edu/</u>)

Georgia Sea Grant / Marine Extension

Part of the National Oceanographic and Atmospheric Administration (NOAA), Georgia Sea Grant closely partners with UGA's Marine Extension Service (MAREX) to create research, outreach and education programs that promote the economic, cultural and environmental health of Georgia's coast. (http://georgiaseagrant.uga.edu/)

Ideas for Creative Exploration (ICE)

Ideas for Creative Exploration (ICE) is a catalyst for innovative, interdisciplinary creative projects, advanced research and critical discourse in the arts, and for creative applications of technologies, concepts, and practices found across disciplines. (http://ideasforcreativeexploration.com/)

Institute for Resilient Infrastructure Systems (IRIS)

The Institute for Resilient Infrastructure Systems (IRIS) helps communities, businesses, and governments mitigate risks - and seize opportunities - associated with environmental change, extreme weather, and climate-related events by rethinking, transforming and adapting infrastructure systems to strengthen social, economic and ecological resilience. IRIS achieves this through collaborative partnerships, integrative research, decision support, education, training, and outreach. (https://engineering.uga.edu/research/centers/IRIS)

UGA Marine Institute - Sapelo

The mission of the UGA Marine Institute (UGAMI) is to provide exceptional opportunities for research and university-level education in coastal ecosystems. Located within the Sapelo Island National Estuarine Research Reserve (SINERR), UGAMI is a living laboratory that offers access to protected barrier island habitats, including salt marshes, beaches, maritime forests, tidal creeks and estuaries. It also serves as the home base for the Georgia Coastal Ecosystems Long-Term Ecological Research Project (GCE). (http://ugami.uga.edu/)

New Materials Institute

NMI takes a systems approach to the challenges of design and disposal of new products and materials. Its goal is the development of new materials guided by green engineering principles: the design and use of processes and products in a way that minimizes pollution, promotes sustainability and protects human health—without sacrificing economic viability and efficiency. (https://newmaterials.uga.edu/)

The Obesity Initiative

The University of Georgia Obesity Initiative addresses Georgia's growing epidemic of childhood and adult obesity, as well as the increasing incidence of overweight infants. The initiative harnesses diverse and extensive obesity-related instruction, research activities, and public service and outreach components to address this multi-faceted problem through obesity prevention and treatment programs that interested Georgia communities, employers and healthcare providers can implement. (http://obesity.ovpr.uga.edu/)

One Health

The Division of One Health at the UGA Biomedical and Health Sciences Institute seeks to promote and expand the ongoing One Health efforts of UGA faculty, students and staff who share One Health's unified vision towards combating today's global health threats. (<u>http://onehealth.uga.edu/</u>)

River Basin Center

The mission of the River Basin Center is to produce and disseminate the knowledge and tools for sustainable management of aquatic resources and ecosystems through applied scientific and policy research, and by training the next generation of managers and researchers. (<u>http://rivercenter.uga.edu/</u>)

Photo Captions:

"Transit": UGA operates the largest campus transit system in the US and plans to convert approximately one-third of its bus fleet to all-electric vehicles in 2017.

"UGA Chew Crew": Funded initially by a Campus Sustainability Grant, UGA's Chew Crew is a student-run prescribed grazing project which incorporates goats and volunteers to remove invasive plants from natural areas on campus.

"UGA Outdoor Class": All students at UGA engage in experiential learning and environmental literacy programs and the physical campus serves as a living laboratory to teach, research and refine sustainability practices.

"UGA Solar Charging Station": UGA has installed over 1 mega-watt of solar panels on campus, including this solar charging station on Herty Mall, a popular outdoor destination for students and faculty.

"Watershed UGA": Watershed UGA is a campus-wide experiential learning initiative to engage students, faculty, staff and community members in restoration activities that enhance local watersheds.