

Urban Tree Planting Program

Background

Duke University was the first university to create a dedicated carbon offsets initiative. The Duke Carbon Offsets Initiative (DCOI) is responsible for helping Duke University meet its climate neutrality commitment through the development of innovative emission reduction projects that provide social, economic, and environmental benefits to the surrounding community.

In the spring of 2016, the (DCOI) officially launched its urban forestry program in partnership with [Urban Offsets](#), a North Carolina based start-up dedicated to helping schools reach their climate neutrality commitments and cities plant trees. This program aligns universities' climate neutrality commitments with municipal governments' desire to increase urban tree canopy.

We invite your school to join Duke University in this collaborative partnership program that will lead to local investment in green infrastructure and emission reductions for schools.

Photo courtesy of Esteban Peralta, student at Duke University

Why Urban Trees?

In the southeastern United States, urban trees that are healthy and properly maintained can sequester an average of five or six metric tons of carbon dioxide during their lifetime. The carbon offsets generated from the tree planting projects could be used by colleges and universities to meet their climate neutrality commitments. Through this urban tree program, schools can acquire offsets while providing a wide variety of benefits to the local city and community, including:



**Educational
Opportunities**



**Community
Engagement**



**Increased
Property Values**



**Increased
Business Traffic**



**Pollution
Absorption**

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Educational Benefits

With higher education institutions' emission reduction targets, a school can harness the collective academic prowess of its community to provide solutions to complex issues. Due to the innovative and collaborative nature of urban forestry offsets, there are many opportunities for students, staff, and faculty to learn about how carbon offsets could fit within their school's climate goals. Urban forestry offset projects also provide an opportunity for schools to develop local carbon offset projects. Below are examples of how your school could engage its academic community in an effective manner.

Students

- Learn about carbon offsets and climate action plans
- Develop a project plan in collaboration with school's community, city officials, local businesses and non-profit organizations, and other universities
- Collect data on growth and health of project trees
- Use the data from the project trees for research projects
- Support community outreach about the environmental, economic, and societal benefits of trees
- Plant and care for project trees



Staff and Faculty

- Learn how a school can generate carbon offsets that can be used to meet a school's climate goals
- Develop a project plan in collaboration with school's community, city officials, local businesses and non-profit organizations, and other universities
- Use this project as a springboard for future offset projects that align with the goals of the school
- Identify ways to incorporate urban tree plantings in current and future research projects
- Provide students with real-world project management experience through a class project
- Have access to urban tree health and growth data
- Collaborate with faculty from across disciplines on new research projects
- Share research with the campus and local community



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Program Timeline

The following project timeline was developed using the DCOI's and Urban Offsets' project experience. The anticipated time frame is 6 months, which allows for city partnership development, site selection, tree purchasing, and planting event coordination. After planting, tree growth data will be collected annually for the next forty years as the trees grow and sequester carbon. The DCOI and Urban Offsets will work with your school to verify the carbon offsets produced from the project as well as estimate additional benefits that the trees provide to the local community every five years.



Project Design

The DCOI will help develop the project plan and design



Partnerships

The DCOI and Urban Offsets will help schools develop partnerships with local organizations



Tree Location

The school will work with local organizations to determine the location for the tree planting



Offset Verification

The school will verify carbon offset generation based on the DCOI's urban forestry protocol's verification schedule



Data Collection

The school and partner organizations will collect data every year on tree growth and health and add to UO's database



Tree Planting

The school and partner organizations will coordinate a tree planting event



Co-Benefits

The schools and Urban Offsets will estimate the value of social, economic, and environmental co-benefits



Best Practices

The DCOI will survey schools, Urban Offsets, and other project partners for lessons learned to develop a best practices guide



Reporting

The DCOI will summarize the tree planting program data and share results with other schools

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Pilot Program Research Questions

The DCOI invites your school to participate in our pilot program. Our goal is to answer the following questions through the expansion of these pilot tree planting projects:

- How can schools best meet climate neutrality commitments from urban tree planting projects?
- What elements are required for this program to be successfully scaled to other universities?
- What is the most effective collaboration strategy between project stakeholders?
- Where should project trees be planted in order to maximize social, environmental, and economic benefits?
- What are the best avenues to share success stories to encourage future plantings at other universities?

Program Offerings

The DCOI and Urban Offsets aims to expand this program by partnering with colleges and universities looking to reduce emissions through the development of local carbon offsets projects. This is a highly customizable program depending on your school's resources. The DCOI, Urban Offsets, and cities may be able to support your school and your program in the following ways:

- Identification of how tree planting aligns with your school's climate goals
- Guidance with development of the tree planting project
- Coordination of school and city partnership
- Use of the DCOI's urban forestry carbon offset protocol
- Access to Urban Offsets' data collection software
- Expertise in data management, carbon accounting, and project reporting
- Assistance with tree purchasing and planting site location



To learn more about becoming a partner school, please contact the program staff below:



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