Sustainability At Duke

Green Lab Certification
Outreach and Engagement
2019 Climate Action Plan

- Energy
- Transportation
- Carbon Offsets
- Education
- Communication

Growing Green

Becoming A Carbon Neutral Campus
Energy Recommendations

- Increase efficiency of buildings on campus
- Educate key decision-makers on campus about building energy use
- Investigate ways to scale the use of biogas on campus instead of natural gas
- Large-scale, offsite solar
Communications Recommendations

- Host departmental-specific workshops about sustainability at Duke
- Develop departmental- or school-specific Climate Action Plans
- Bolster the Green Certification program for workplaces, labs, classrooms, dorms, and events
Communications Recommendations

Outreach and Communications Recommendations:

- Develop a robust network of Sustainability Champions in all workplaces, classrooms, labs, and dorms.
- Develop a formal network of Sustainability Champions, who serve as both advocates and ambassadors of sustainability at Duke.
- Gather stories from Sustainability Champions about their experiences and share them with the Duke community.
- Host a recognition ceremony for students, staff, and faculty Sustainability Champions.
- Provide sustainability challenges to Sustainability Champions and newsletter recipients.

- **2013** - 10 Green Certified Labs
- **2014** - 49 Green Certified Labs
  - The Battle of the Schools sustainability competition resulted in a 390% increase in the number of green certified laboratories.
- **2021** - 80 Green Certified Labs at Duke
Sustainability Strategic Plan

● CAP Focus Areas
  ○ Emissions
  ○ Water
  ○ Waste
  ○ Natural Resources
  ○ Food
  ○ Procurement
Geographic Boundary

8 Green Lab certifications at Duke Main Hospital

Included
- University
- Marine Lab
- School of Medicine/Nursing

Excluded
- Health System
- Leased Assets
- International Campus
Importance of Energy Reduction in Labs

- Labs are 5 times more energy intensive than other campus spaces, on average.

- Cost to operate a fume hood at Duke is $5000 per year. Same cost as running 3.5 houses.

- Cost to operate an ultralow freezer at Duke is $1200 per year.

- Shut the Sash Campaign saved $3,000 in energy costs per year.

Notes: May not total to 100% due to rounding. Miscellaneous is a CBEC category. Other combines end use categories < 5%: Office equipment, Heating, Cooling.

© E Source; 2012 data from the US Energy Information Administration
Pratt Greengineering Campaign
Pratt Greengineering Campaign

Duke Engineering Commits to Sustainability

JUNE 10, 2019

School-wide ‘GREENengineering’ initiative to reduce waste, boost recycling and save energy

Savannah Volkoff, a PhD candidate in environmental engineering, prepares reagent samples in her Hudson Hall lab and then recycles used plastic pipette-tip boxes.
“We are a top-10 school in environmental engineering, and I felt strongly that we could use our expertise to improve our local environment and show leadership on campus.”

RAVI V. BELLAMKONDA
VINIK DEAN OF ENGINEERING

Presentation: Greening Your Lab
MAY 2, 2019
Research and teaching labs are energy-intensive—using about five times more energy than other campus spaces, on average. This presentation provides a brief but comprehensive overview of the why and how to obtain Green Lab Certification at Duke.

GREENineering: Duke Bleeds GREEN
MARCH 1, 2020 | BY ASHA MALLAPRAGADA

Initiated by Dean Ravi Bellamkonda, GREENineering is working toward a greener and more sustainable Pratt School of Engineering.

GREENING YOUR LAB:
Green Lab Certification

- GREENineering at Pratt
- Duke Office of Sustainability
- Green Labs at Duke

Members of the GREENineering team talk to Pratt School of Engineering members about their efforts in making Duke greener and more sustainable.
Pratt Greengineering Campaign

- Identify activated and motivated stakeholders in your institutions different silos

- Provide Deans and Departments with incentives like awards and publicity in newsletters

Outstanding Leadership in Sustainability – Student

Trisha Dupnock, Ph.D student, Environmental Engineering

With her actions and ideas, Dupnock has helped make the Pratt School of Engineering greener.
Celebrate Efforts and Action

The IVQAC Receives Gold Level Green Lab Certification
Celebrate Efforts and Action
Questions?

Rebecca Hoeffler
rebecca.hoeffler@duke.edu