



# Sustainability at Tufts FY11

## Academics

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### Courses\*

- 51 focused on sustainability
- 122 related to sustainability
- Sustainability courses offered in 30 departments
- 540 graduates covered by sustainability learning outcomes (out of 2,638 total in three years)

*\*These numbers are for the Medford campus only*

### Undergraduate degree programs

- Environmental Studies (2<sup>nd</sup> major only)
- Bachelor of Science in Environmental Engineering

### Graduate degree programs

- Master of Arts in Urban and Environmental Policy and Planning
- Master of Arts and PhD in Law and Diplomacy, International Environment and Resource Policy concentration, The Fletcher School
- Master of Engineering in Civil and Environmental Engineering
- Certificate Program in Environmental Management
- MS, PhD program in Environmental and Water Resources Engineering
- Masters of Science in Animals and Public Policy (MAPP)
- MS, PhD in Agriculture, Food, and Environment

### Special programs

- Water Systems Science and Society (WSSS) Masters degree – across 5 schools.
- IGERT (NSF) Water and Diplomacy PhD- collaboration across 3 schools
- Center for International Environment and Resource Policy (CIERP) based at the Fletcher School
- Institute for Global Leadership Education for Public Inquiry and International Citizenship (EPIIC)

- Tufts Environmental Literacy Institute (TELI)
- Community Environmental Studies certificate
- Tufts in Talloires
- Experimental College
- Tufts Wilderness Orientation (TWO)
- Freshman Orientation Community Service (FOCUS)
- Voices of Tufts: the Diversity Experience

## Research

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- 72 faculty members engaged in sustainability research (out of 776) on the Medford campus
- 19 academic departments where at least one faculty member engages in sustainability research (out of 44) on the Medford campus
- Affiliations with the Global Development and Environmental Institute (GDAE) and the Stockholm Environment Institute (SEI)
- The Tufts Institute of the Environment supports research and teaching across the entire University.
- Dow Sustainability Student Innovation Challenge

## Operations

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### Food

- Dining Halls purchase local, organic & fair trade product as much as possible
- Dining Halls serve sustainable fish & cage free eggs
- Reduction of the packaging, e.g. purchasing condiments in foil bags rather than tin cans
- Mixed paper, plastic/metal/glass are recycled in all locations
- Pre and post-consumer food waste is composted in the dining halls.
- Matriculation luncheon is a near-zero waste event.
- Use biodegradable plates where possible
- Minimize water & energy consumption
- Removal of trays from the main dining halls to reduce food waste, water and energy used in washing
- Weekly Farmer's Market on the Medford/Somerville campus in collaboration with Friedman School's New Entry Sustainable Farming Project
- Year-round Community Supported Agriculture (CSA) box share delivery (vegetables and fruit)
- Two public composting bins on the Medford campus, with a third in the

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- Composting in all dorms served by Eco-Reps
- Vegan and vegetarian dining options widely available
- Reusable mug discounts available at 4 locations on the Medford campus

## Waste

- Re<sup>2</sup>pack (recycling and reuse program for students moving out at the end of every year) – last year recycled 67% of all waste.
- Plastic/Metal/Glass and Mixed Paper recycling available on all three campuses, in all buildings and outside.
- '09-'10 recycling rates: Medford 50%, Boston 21%, and Grafton 16%
- Construction materials recycled
- Intensive cardboard recycling at Fall move-in
- Compost of all yard waste
- Regularly scrub mailing lists to limit catalog delivery
- Participate in RecycleMania (national contest) and a Medford campus dorm recycling competition
- Electronic (e.g. computers and their peripherals) recycling through Allied Computer Brokers
- Universal waste (e.g. CFLs, batteries) recycling
- Hazardous Waste (chemical/biological) disposal program
- Cell phone and ink jet cartridge recycling
- Surplus furniture program
- "Freecycle" room
- Many schools are switching to electronic applications and matriculation material delivery.
- Default duplex printing in library public areas

## Energy Reduction

- Retro-commissioning in large facilities. Efforts have resulted in reactivation of heat recovery capabilities and a chiller retrofit to increase efficiency and allow use of environmentally friendly refrigerant
- Ongoing lighting efficiency and controls upgrades including occupancy based lighting controls, daylight dimming and technology upgrades (e.g. fluorescent and LED)
- New construction designed with state of the art HVAC, lighting, controls to improve energy performance and reduce emissions
- Variable frequency drives installed wherever feasible
- High efficiency boiler upgrades in renovations and new construction
- Automated building controls used in all major buildings
- 7 day programmable thermostats used in most wood frame houses
- Energy Star refrigerators in residence halls

- Demand control ventilation system installed in recent laboratory renovations
- Residence hall winter break shut down to assure lights off, heat down, windows closed, appliances off
- Energy Star vending machines or use of Vending Misers
- Free compact fluorescent lightbulb exchange
- Various efforts to reduce energy use by computers through use of LCD screens instead of CRT, increased use of laptops, use of powersaving features and purchase of EPEAT Gold certified computers.

## **Emissions Reductions**

- The Tufts Climate Initiative was begun in 1999 to help Tufts reduce its greenhouse gas emissions.
- On track to meet Kyoto Protocol goal of 7% reduction in emissions below 1990 levels by 2012
- Ground source heat pump pilot project installation at Lane Hall
- Long term power supply contract with TransCanada for cleaner power generation (cuts CO<sub>2</sub> emissions from electricity by 33% compared to NE Grid power)
- Converting to natural gas wherever feasible, including Central Heating Plant conversion in November of 2011
- B5 Ultra low sulfur diesel fuel used in Medford based vehicles
- Medford campus emergency generator readiness testing reduced to one hour per month
- Two current installations of photovoltaic generation and studies underway for additional locations

## **Water Reduction**

- Low flow shower heads installed in all residence halls
- Residence hall renovations include dual flush or low flow toilets
- Front loading washing machines installed in residence halls
- Waterless urinal pilot program
- Water metering in all Tufts buildings
- Xeriscaping practiced when possible
- Efforts to use ground water and building run-off for irrigation are underway.

## **Custodial**

- Green cleaning products
- Recycled content paper products

## Landscaping

- Integrated pest management
- Organic landscaping practices have been used in the past
- Extensive mulching for weed control and water conservation
- Landscaping waste is composted
- Stormwater runoff reduction initiatives
- Tisch library vegetated roof project
- Sustainable Campus Development utilizes sustainable design principles

## Transportation

- Student-run free bike share program on Medford/Somerville campus
- Early and continuing participant in Zipcar (Medford only has hybrids per agreement with Zipcar)
- MassRides Partner – commuting resources, ride-matching, guaranteed ride home and incentive programs
- NuRide reward and ride-matching program
- Shuttle to Davis Square and the Museum School at the MFA when school is in session
- From 2002 to 2009 Toyota leased 5 Electric vehicles to Tufts. These zero-tailpipe emissions vehicles (RAV4s) ran entirely on battery power and were used by Mail services, Public Safety and Grounds. Toyota requested them back in 2009 and we had to comply.
- Currently operating 1 hybrid Prius, 1 electric GEM (golf cart style) and 1 electric tractor mower
- Employees can use pre-tax money to buy transit tickets and passes
- Discounts for MBTA passes
- Telecommuting is an option for appropriate positions
- Video conference rooms available on all three campuses
- Desk-side video and audio conferencing software and hardware
- 81.6% of students on the Medford/Somerville campus walk, bike, carpool, or take public transportation as their primary method of transport

## Outreach

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### Current Programs and Groups

- Eco Reps – students in dorms
- Eco Ambassadors – staff and faculty
- New Entry Sustainable Farming Project
- Student clubs

- Tufts Sustainability Collective (TSC)
- Tufts Energy Forum
- Tufts Mountain Club (TMC)
- Honos Civicus society for civic engagement
- Fletcher Green
- The Climate Policy & Planning Coalition (CPPC)
- Tufts Energy Conference (TEC)
- Student Planning & Policy Association (SPPA)
- Balance Your Life (BYL)
- Inter-Campus collaboration through AASHE, NECSC (Northeast College Sustainability Coordinators), USGBC, and MMSCOR (Massachusetts School Sustainability Coordinators)

## Recent Student Campaigns/Initiatives

- Tufts Bikes – free bike share
- Trayless Dining
- Hodgdon Goes Green (removing disposable, single serving beverages and plastic bags from Hodgdon-Good-To-Go)
- Tom Thumb’s Garden – student garden
- Sustainability Roundtable
- Earth Week events

## Publications

- OOS Website - <http://sustainability.tufts.edu/>
  - Viewed by 30,000 people in the past year
- Weekly Sustainability Newsletter
- Twitter Account (TuftsOOS)
- Facebook Accounts for Eco-Ambassadors, Eco-Reps and Office of Sustainability
- Green living resources – on-line and printed
  - Eco-map
  - Guide to living green
  - Habitats (publication for residents created by Res Life)
  - Tips for off-campus students
  - Traveling Green pamphlet
  - Tufts Recycles website
  - Energy and climate change pamphlets
    - Computer usage
    - Light usage
- Sustainability Blogs: Tufts Recycles!, Tufts Office of Sustainability, Eco-Reps
- Food
  - FEAST website

- Student food blogs
- 'Balance Your Life' Healthy Living blog
- CSA, Farmers Market fliers
- Distribution of 3<sup>rd</sup> party info brochures
  - Seafood Watch
  - Union of Concerned Scientists
  - Water saving & home energy savings tips
  - MassSave home energy efficiency
  - Zipcar
  - Bike maps
  - MBTA maps and Charlie Card discount books
  - MassRides/NuRide commuting options
  - Zipcar – carsharing for 21+
  - RelayRides – carsharing for 18+
  - Sustainable grounds-keeping website

## Administration

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### Sustainability coordination and planning

- Office of Sustainability
- [Talloires Declaration](#)
- [Environmental policy](#)
- Commitments to regional ([New England Governors/Eastern Canadian Premiers Climate Change Action Plan](#)) and international ([Kyoto Protocol](#)) goals to reduce emissions of [climate-altering gases](#).
- “Environmental sustainability” is one of the three strategic areas for the School of Engineering
- Tufts Strategic Plan Visionary Goal F is Sustainable Campus Development
- Administrative Excellence Plan, Theme 8 is “Sustainability”

### Diversity

Tufts has a non-discrimination policy

- Office of Associate Director Graduate Diversity Programs
- Civic Engagement Fund
- Commonwealth Compact Signatory
- Graduate and Professional Student Admissions Recruitment Committee (GAPSARC)
- Retention Task Force
- Leadership Alliance Member
- The Multi-Ethnic Graduate Alliance (MEGA)

- New England Higher Education Recruitment Consortium (NE-HERC) Member
- Office of Institutional Diversity (OID)
- Office of Equal Opportunity (OEO)
- Jonathan M. Tisch College of Citizenship and Public Service
- AS&E Diversity Council
- AS&E Diversity Fund
- AS&E Office of Diversity Education and Development (AS&E Diversity Office)
- Office of the Associate Director of Diversity Recruitment, Undergraduate Admissions
- Bias Initiative at Tufts
- Gender neutral housing
- Career Services - Diversity Resources and Diverse Opportunities Newsletter
- Center for STEM Diversity
- Committee on Equal Educational Opportunity
- Minority Association of Pre-Med Students (MAPS)
- Group of Six Cultural Centers
- Veterinarians for Diversity
- Student Hispanic Dental Association
- Fletcher Alumni of Color Association (FACA)
- Diversity Training Grants at the Friedman School
- Building Diversity in Biomedical Sciences Program
- Office of Multicultural Affairs (Medical School)
- School of Arts and Sciences strategic plan to advance the number of tenured faculty, especially faculty of color and women
- Urban Teacher Training Collaborative (UTTC)
- Neighborhood Fellows Program
- National Consortium for Graduate Degrees for Minorities in Engineering Science, INC. (GEM)
- NSF Research Experience for Undergraduates and Undergraduate Research Mentoring (Biology Department)
- Computer Science, Engineering, and Math Scholars (CSEMS)
- Health Careers Fellows (HCF)
- Tufts Parents Program
- Fair Labor Association
- Students Promoting Equality Awareness and Compassion (SPEAC)

## Human Resources

- Sustainable Compensation program
- Employee Satisfaction Evaluations
- Staff Professional Development in Sustainability through Eco-Ambassador program
- Socially responsible retirement plans are offered thru Fidelity and TIAA-CREF



- Tufts Educational Day Care Center and Eliot-Pearson Children’s School child care options
- Healthy @ Tufts workplace wellness initiative

## Investment

- The Advisory Committee on Shareholder Responsibility (ACSR) (2007 - present) is a committee designated as an student-run advisory mechanism to the Board of Trustees for making socially responsible investment decisions.
- Sustainability investments
  - \$13.8M (1.1%) allocated to timber
  - \$2.6M (0.2%) allocated to clean technology
  - Microfinance fund - <http://www.tufts.edu/microfinancefund/>
- Student-Managed SRI fund through The Experimental College

## Office Practices

- 30% recycled content paper is same price as ‘virgin’ paper
- Many offices use 100% recycled content copy paper
- Double-sided printing
- Switching off computers and lights when not in use where feasible
- Many offices are switching to reusable mugs and dishware
- Switching to filtered water instead of bottled water units in offices
- Some offices have composting

## Purchasing

- “green” options available through preferred suppliers
- Energy Star equipment
- EPEAT computers
- Efforts to purchase from local vendors
- Tufts Minority Business Enterprise Program purchases from local minority, women-owned, and small business suppliers

## Recent Recognition

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- Northeast Energy Efficiency Partnership Leader for 2010 with savings of over six million kWh per year
- Building 20 in Grafton “Best Energy Project in Higher Education (2009)
- National Grid “Excellence in Energy Efficiency over 20 years (2008)

- LEED certifications for Sophia Gordon (Gold), Biology labs at 200 Boston Ave. (under construction–Gold anticipated), Dental School vertical expansion (Silver), Dental School Level 2 Renovation (Gold anticipated) and Medical School Sackler Building (Silver anticipated)
- Massachusetts Eco Awards recipient of the Leadership Award for Excellence in Commuter Options (2011)