

Project: LEED Research

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Role: Student

Description: The United States Green Building Council (USGBC) recently released version 4.1 Beta of their Leadership in Energy and Environmental Design (LEED) certification system. This version includes a new Cities and Communities rating system that can be applied to an “educational campus.” The LEED rating systems measure specific and quantifiable elements of sustainability, and award certifications to projects that prove themselves environmentally, economically, and socially sustainable. This project will use the Guide to LEED v4.1 Beta for Existing Cities and Communities and other USGBC resources to generate a project proposal for LEED certifying Tufts’ Medford campus. The proposal will include step-by-step instructions, a projected budget, a recommended timeline with a Gantt chart, and an annotated list of professional contacts. The proposal will not attempt LEED Silver, LEED Gold, or LEED Platinum certifications. The proposal will not include an assessment of the energy savings or any other benefits of LEED certifying the campus. The proposal will be delivered to the Office of Sustainability upon completion of the project. We plan to present the complete proposal to environmentally focussed groups on campus, TCU Senate, and Tufts administration in order to gather support for the LEED certification of our campus.

People Involved: This project is strictly research and does not require permission from any group. It will involve communication with Tufts administration to assess the current sustainability of the Medford campus and Tufts’ ability to comply with certification requirements. We also plan to use the Office of Sustainability to get in contact with parties that have managed past LEED projects at Tufts. We hope to use these successful LEED projects as case studies to inform our proposal.

Budget: Student Researcher Stipend \$2000 USGBC Educational Subscription \$100 USGBC Massachusetts Student Membership \$25 Total: \$2125

Timeline: The project will begin during the spring of 2020 and continue through the summer. Phases 1 and 2 will be completed during the spring semester, phase 3 will begin during the spring semester and continue into the summer, phases 4 and 5 will be completed during the summer, and phase 6 will be completed in the fall.

1. Outline certification process
 - 1.1. Contact managers of previous LEED projects at Tufts
 - 1.2. Use USGBC educational subscription materials to become familiar with the certification process
 - 1.3. Attend USGBC Massachusetts Emerging Professionals monthly meetings to network for the project
2. Determine requirements for certification
 - 2.1. Use the Guide to LEED v4.1 Beta for Existing Cities and Communities to create a list of LEED credit requirements specific to Tufts
 3. Assess Tufts’ current ability to meet certification requirements
 - 3.1. Assess Tufts’ current ability to meet prerequisites
 - 3.1.1. Break prerequisites into specific requirements
 - 3.1.2. Receive sustainability data from Tufts administration
 - 3.1.3. Assess which requirements are currently satisfied/unsatisfied
 - 3.2. Assess Tufts’ current ability to achieve additional credits
 - 3.2.1. Break additional credits into specific requirements
 - 3.2.2. Determine which credits are most attainable/somewhat attainable/unattainable
 - 3.2.3. Receive sustainability data from Tufts administration
 - 3.2.4. Assess which requirements are currently satisfied/unsatisfied
 4. Determine steps to meet certification requirements
 - 4.1. Determine steps to satisfy prerequisites
 - 4.1.1. Predict timeline, cost, and additional research requirements
 - 4.1.2. Contact relevant professionals
 - 4.2. Determine the most attainable path to certification
 - 4.2.1. Decide which additional credits should be pursued based on

attainability 4.2.2. Determine additional research requirements 4.2.3. Estimate timeline and cost 4.2.4. Contact relevant professionals 5. Create project proposal 5.1. Write purpose statement 5.2. Create work breakdown structure 5.2.1. Research the official process of LEED certification 5.2.2. Break the process into specific milestones/deliverables 5.3. Create Gantt chart 5.3.1. Determine the timeline of LEED certification 5.3.2. Determine convenient time windows for additional research 5.4. Create budget 5.4.1. Determine USGBC fees 5.4.2. Determine costs of additional research 5.4.3. Determine miscellaneous costs 5.5. Create annotated contact list 5.5.1. Compile the list of professional contacts gathered throughout the project 5.5.2. Write short descriptions with contact information and area of expertise. Describe how they may be able to help with the project. 6. Present project to the Office of Sustainability 6.1. Create presentation 6.2. Contact Office of Sustainability 6.3. Present! 6.4. Deliver full project proposal

Benefit to Tufts Community: LEED was developed to “inspire leadership,” “enhance quality of life and living standards for residents,” and “foster achievement of global goals.” This mission is achieved through seven focus areas inspired by the UN sustainable development goals. The rating system was developed and refined by the USGBC and a national network of professional volunteers. Each area has specific prerequisites that must be met in order to receive certification. Tufts already complies with some of these prerequisites, but others will take decisive action to achieve. Tufts University has committed itself to acting in accordance with its environmental policy. This means “conserving natural resources and supporting their sustainable use,” “conducting affairs in a manner that safeguards the environmental health and safety of students, faculty, staff and communities,” and “fostering an understanding of and a responsibility for the physical environment.” LEED provides a framework for specific and measurable action with demonstrated results. Not only will LEED certification make Tufts a healthier and more sustainable community, but it will also make Tufts the first full educational campus to receive such a certification. Students will be empowered as leaders in sustainability and our community will inspire other institutions to pursue sustainable action. But Tufts can’t get certified without a plan, and this project will produce a step-by-step guide for creating lasting change that reflects our community’s values.