

Gabriella Fox
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Practicum Synopsis:

During June and July of 2019, Gabriella, a graduate student specializing in Renewable Energy and Efficient Design, had the opportunity to intern with the UMass Amherst Clean Energy Extension (CEE). The main goal of the internship was to conduct a Greenhouse Gas (GHG) Inventory and provide clean energy planning for UMass Amherst's newly acquired Mt. Ida Campus in Newton, MA. Gabriella would use this internship as part of her practicum, which is the last portion of the M.S Sustainability Science program before graduation. Gabriella, along with another graduate student, would serve as co-leads for a team of three undergraduate students.

The internship began with analyzing energy usage, conducting a GHG inventory, calculating Energy Use Intensity, and inspecting each building on the Mt. Ida campus. Based on these calculations and analysis, the team identified three buildings that were more problematic in terms of energy efficiency. They created recommendations for reductions in energy use and GHG emissions in the building and transportation sectors, as well as recommendations for overall environmental sustainability. Recommendations were provided for specific buildings and for the campus as a whole. Building analysis, the GHG Inventory, EUI calculations, and recommendations were highlighted in a written 85-page report, and the team gave a final presentation to CEE and Mt. Ida staff. Also included in the final report was a Building Atlas and GIS mapping. The Building Atlas was a building by building index which organized building data such as meter numbers, types of mechanical systems, and specific building recommendations, while the GIS map visualized locations of meters, heat pumps, and generators.

Gabriella personally conducted the majority of the GHG inventory, and she contributed substantially to the building atlas, the written report, and the final presentation. She also provided project management throughout the duration of the internship by ensuring that all work was completed in a timely manner. The practicum was a great learning opportunity and a rewarding experience for which Gabriella is thankful for. This practicum complimented and extended the MS3 curriculum by providing Gabriella experience in project management, leadership, public speaking, and report writing. She is confident that she will use the knowledge she gained throughout this practicum towards her future career in the renewable energy field, helping individuals, municipalities, or state governments decrease their emissions and energy use.