

Strengthening Minnesota businesses by maximizing efficiency and lowering costs through energy, water and waste reduction

Internship: Lead a project focused on targeted energy reduction strategies to reduce electrical, steam, and chilled water use and optimize control of energy consuming equipment automation systems.

Company: University of Minnesota Physicians

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on energy efficiency with the University of Minnesota Physicians (UMP) in Minneapolis, MN. The UMP facility provides healthcare services including clinical exams, imaging, lab work, pharmacy, procedures, surgeries and administrative office support. The intern will work with MnTAP and UMP staff to assess energy reduction strategies to reduce electrical, steam and chilled water use and recommend ways to optimize control of equipment automation. The project will focus on the HVAC system and will evaluate efficacy of controls in place to control energy consumption. An overarching goal will be to balance energy consumption with comfort and sterilization requirements that are a part of the healthcare facility.

JOB DUTIES:

As part of this project, you will be asked to complete the following tasks

1. Use existing data to review hydronic systems and HVAC system scheduling to improve efficiencies.
2. Evaluate set-points throughout the building to confirm if adjustments can be made seasonal to achieve energy savings.
3. Implement lighting control system and identify improvements in existing lighting controls and changes to lighting schedules.
4. Evaluate energy-use of equipment for possible reductions in plug-load based on occupancy, use and healthcare standards.
5. Make recommendations for improvements based on research and testing for electrical, steam and chilled water use reduction.
6. If time allows, investigate other potential areas that might cause excessive energy use, such as air filtration systems.
7. Estimate reduction or diversion potential and costs associated with implementation of a recommended reduction opportunity and prioritize suggested changes using payback methods to justify the alternative processes or equipment.
8. As appropriate, initiate approved changes and system upgrades and estimate the performance of upgraded systems.
9. Summarize findings in a detailed report, including recommended procedures and vendor proposals along with an economic analysis and justification of changes.
10. Present findings to the company and at MnTAP-hosted public presentation events.

As an intern, you will work at the company and report back to MnTAP. The position is full time, 40 hours per week, for three months to start after the conclusion of spring semester or quarter. Pay is \$14/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$16.00/hour when averaged over the project. Candidates must pass a background check.

QUALIFICATIONS:

- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- A technical academic background
- Troubleshooting skills
- Self-motivated
- Excel and other software skills
- Appropriate majors: *Engineering, environmental or physical sciences and others as applicable*

TO APPLY:

Apply online at:

www.mntap.umn.edu/intern/student_apply.htm

Remember to submit your application form, cover letter, resume, and unofficial transcript.

Applications can be addressed to:

Nathan Landwehr, Intern Program Administrator
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Minneapolis, MN 55455 • landwehr@umn.edu

MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY