UNIVERSITY OF MINNESOTA

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

## Internship: Lead a project focused on water and energy conservation through steam system efficiency.

## Company: M Health Fairview - Minneapolis, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on water and energy conservation opportunities at M Health Fairview West Bank facility. The intern will work with MnTAP, M Health Fairview and other project staff to investigate steam system efficiency opportunities. The student will also work on other projects as time allows, such as evaluating sterilization systems as well. The intern will quantify these opportunities and develop suggestions to increase condensate return, minimize steam loss, resulting in water and energy savings. Recommendations will outline plans for implementation, as well.

### JOB DUTIES:

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

1. Quantify, with a mass balance, the main uses of steam within the M Health Fairview West Bank facility, including steam lost to humidification.
2. Identify steam leaks throughout the system, for example, at heat exchangers and steam traps.
3. Develop solutions to reduce steam leakage throughout the M Health Fairview West Bank facility.
4. Determine the efficiency of the softeners & RO systems at the sterile instrument processing facility.
5. Explore the opportunity to redirect either RO reject or excess RO permeate to the cooling towers at the sterile instrument processing facility.
6. Make recommendations for specific improvements based on research, testing, and calculation that will result in wastewater energy efficiency and water conservation.
7. Estimate natural gas and water reduction potential from implementation of provided recommendations, then prioritize suggested changes using simple payback methods for financial justification.
8. As appropriate, initiate implementation of approved process changes or develop plans for future implementation.
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 $16/hour, with a lump sum stipend of $1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to $18.00/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:
Matt Domski, Intern Program Manager
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Minneapolis, MN 55455 • mdomski@umn.edu

**MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY**

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