2015 MnTAP Summer Internship: Firmenich, Inc. in New Ulm, MN
Lean Manufacturing Project to Increase Efficiency and Reduce Energy

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on researching opportunities to increase efficiencies of their spray driers and reduce energy use at Firmenich, Inc., a food flavorings manufacturing company located in New Ulm, MN. This internship will provide a hands-on experience in supporting the lean manufacturing process, researching opportunities, and supporting implementation of solutions with the aid of experienced on-site staff. The project will look at process inputs and parameters of the spray dryer which directly impact energy usage and product throughput. The company is also interested in reclaiming equipment cleaning water for reuse.

**JOB DUTIES:**

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

1. Understand the various production parameters of the spray driers and the various feed slurries recipes. Gather data from employees, formulas, observation and measurements.
2. Review current operating procedures and recommend revisions which lead to process improvements. Document procedures which save time, increase production capacity, and minimize energy use.
3. Investigate solids content of appropriate recipes and identify solutions which increase solids percentage of feed slurries.
4. Research and evaluate options for reclaiming equipment cleaning water and chemicals as time allows.
5. Demonstrate ability to communicate the value of the lean manufacturing process, and be willing to engage regularly with process efficiency and work with teams to discuss/support process change.
6. Prioritize suggested changes using simple payback methods to financially justify the alternative processes or equipment. Develop a cost comparison between the use of existing procedures and the new ones.
7. Work with the company’s management and employees to determine feasibility of alternative methods & processes.
8. Implement and document approved changes or outline a strategy for implementation. Establish metrics to track improvements, including materials and energy usage.
9. Summarize findings in a detailed report, including recommended procedures and formulations along with an economic analysis and justification of any changes.
10. Present findings to the company and at MnTAP-hosted public presentation events, one of which may include a presentation at the Minnesota Pollution Control Agency (MPCA) or the Minnesota Department of Commerce.

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 $13/hour, with a lump sum stipend of $1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to $15.00/hour when averaged over the project.

**QUALIFICATIONS:**

- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- A technical academic background
- Troubleshooting skills
- Appropriate majors: Chemical Engineering, Mechanical Engineering, Food Science 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:
Linda Maleitzke, Intern Coordinator
200 Oak Street SE, Suite 350
Minneapolis, MN 55455 • Lmaleitz@umn.edu

MnTAP is the hiring body: Do NOT contact the company.

MnTAP is funded primarily by the Minnesota Pollution Control Agency’s Prevention and Assistance Division and is located at the University of Minnesota in the School of Public Health, Division of Environmental Health Sciences. The University’s mission, carried out on multiple campuses and throughout the state, is threefold: research and discovery, teaching and learning, and outreach and public service.

The University of Minnesota shall provide equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression.