

UW–Madison

Interdisciplinary Professional Programs

# Technical Leadership Certificate Catalog



Interdisciplinary  
Professional Programs  
COLLEGE OF ENGINEERING  
UNIVERSITY OF WISCONSIN-MADISON

[go.wisc.edu/TLC2024Fall](https://go.wisc.edu/TLC2024Fall)



# BORN TO LEAD

## Technical Leadership Certificate

course topics were developed with your success in mind, by consulting with hundreds of engineers from leading companies. The mix of courses and topics—taught by UW faculty and industry experts—are constantly updated and improved to meet the needs of our global partners.

# LEAD WITH CONFIDENCE

## COURSES DESIGNED TO:



Focus on applied learning



Strengthen technical teams



Enhance project management skills



Gain actionable knowledge you can apply to your career

Courses may be taken individually or as a path to earning your Technical Leadership Certificate

# Immediate Impact

**Make a difference in your work right away.  
What our participants had to say:**

**"Great information. Great instructor... With the change up in the breakout rooms, I was able to meet people with different backgrounds and viewpoints."**

- Brady Lessner, Maintenance Project Specialist, Madison Metropolitan Sewerage District  
(Past Attendee of Principles of Engineering Project Management)

**"The format was great, the materials were easy to read and straightforward. The material itself is fantastic. Coming in as a person that will soon manage without any prior experience, this has been extremely helpful."**

- Tandi Sperfslage, Sr. Project Engineer, Lamplight Farms Inc.  
(Past Attendee of Effectively Managing Technical Teams)

**"This course gave a good Entry level into a lot of the science and math of dealing with data and models and model performance tuning... This is also the first remote course I've taken post-Covid and I really liked how seamless the breakout rooms and communication systems using Zoom were."**

- Eric Heinrichs, Director of Engineering, North Little Rock Electric  
(Past Attendee of Foundations of Artificial Intelligence and Machine Learning)

**"The information was well presented and can be easily used in the professional and personal world."**

- Cheyne Herro, Van's Heating & Cooling  
(Past Attendee of Critical Conversations: Results-based Communication)

**"Very concrete ways of applying the principles, supplemental information outside of the Blanchard program / materials, good mix of lecture, videos, and group work."**

- Malina Janakat-Karle, S.C. Johnson & Son, Inc  
(Past Attendee of Coaching and Mentoring for Technical Leaders)

# Real World Knowledge

**We are proud to partner with our TLC instructors with decades of hands-on experience**



**Trevor Manning**  
Consultant



**Susan Ottmann**  
Director of Professional Programs



**Anthony Orzechowski**  
Director of R&D Data Analytics



**Rob Stone, ME, PMP**  
Project Manager

## Instructor Highlight

### Heather Smith, PMP

Heather Smith is the director of graduate programs for Interdisciplinary Professional Programs in the College of Engineering at the University of Wisconsin-Madison. She leads the online graduate programs and the online degree in Engineering Management. She teaches courses in international engineering and technical leadership.

Heather has over 18 years of experience in the test and measurement sector at National Instruments in multiple engineering and leadership roles. She has led international projects in the consumer electronics, RF, solar, and the oil and gas industries.

Heather's education includes a BS in Mechanical Engineering and a BS in Electrical Engineering from the University of Michigan, and an MS in Engineering and Technology Management from Colorado School of Mines. She is a Certified Project Management Professional (PMP) and a skilled trainer. In her free time, Heather is an avid bird watcher, travels, and devours books.



**Learn more and and enroll at  
[go.wisc.edu/TLC2024Fall](https://go.wisc.edu/TLC2024Fall)**

# Courses

Complete five courses to earn your certificate.

## **Principles of Engineering Project Management**

September 11 – 12, 2024

April 1 – 4, 2025

Whether you are new to project management or have many years of experience, there's always room to improve. Learn how to effectively initiate, plan, execute, control and close out projects.

## **Effectively Managing Technical Teams**

September 11 – 13, 2024

February 24 – 28, 2025

October 6 – 8, 2025

Technical teams present many challenges for engineering managers. Team leaders must often give up some of their technical authority to focus on strategic management, operational planning and human resource management. They also need solid communications skills and know how to represent the team across the organization and at a high level. In this hands-on course, you will learn strategic and operational planning tools to set goals, establish objectives and build defensible budgets from an instructor who has actually "walked the talk" of this course with his own experiences.

## **Leadership Beyond Your Team: Managing Up and Managing Across**

September 16 – 17, 2024

March 3 – 6, 2025

September 29 – 30, 2025

Many management courses, including our own course: Managing Technical Teams, teach you how to deal with direct and indirect reports. To be successful, however, you also need to manage (or strongly influence) the behavior of those who are at your level or higher. But they may not understand your needs or may be indifferent to them. In this course, you will learn how to make yourself heard when you do not have direct authority, and how to change others' behavior to make them reliable partners in your programs and projects.

## **Critical Conversations: Results-Based Communication**

September 18 – 19, 2024

February 17 – 20, 2025

To achieve good outcomes in the workplace, we need all stakeholders to have open, clear and honest conversations with their team, bosses, peers and customers. Often conversations go wrong through misunderstandings and perceptions of ulterior motives. People are often aware that their conversations are not achieving the results they want but do not have any specific tools to improve them.

## **Foundations of Artificial Intelligence and Machine Learning**

October 22 – 30, 2024

Learn machine learning and artificial intelligence fundamentals for more effective technical management of project leveraging AI/ML technologies. Taught online in four sessions of four hours over two weeks for the busy decision maker.

## **Coaching and Mentoring for Technical Leaders**

November 5 – 6, 2024

Learn how to coach, mentor, evaluate, and continuously improve the skills of potential leaders in your organization using the Situational Leadership II® (SLII®) system. The benefits to your organization are many—you will improve internal communication, help others achieve their goals, coach others to be confident and self-directed, and demonstrate organizational leadership that values and honors differences.

