Summer 2026
Educator Professional Development Opportunities

Summer 2026 offers hands-on, industry-connected professional learning for STEM educators, including curriculum training, externships, NSF-funded institutes, and conferences. Many opportunities include stipends, equipment, CEUs, or no-cost participation, all focused on connecting classroom learning to real-world careers and Minnesota workforce needs. All programs are coordinated or supported by Minnesota's Centers of Excellence to strengthen career-connected learning and educator capacity statewide.

At a glance:

- **Engineering & CAD:** Siemens Engineering Design Teacher Training
- **Career & Industry Connections:** Trades in Every Classroom Educator Externships
- **Advanced Manufacturing & Semiconductors:** Microelectronics Mini-Externships & Curriculum Training
- **Agriculture, Robotics & Automation:** ARAT (NSF-funded ATE project) and Small Gas Engine BriefCASE
- **Transportation & Vehicle Technologies:** Midwest Teachers of Transportation & Industrial Areas (MTTIA) Conference

Siemens Engineering Design Teacher Training

- **Who**: 9th-12th grade educators (e.g., CTE, engineering, physics, STEM, etc.)
- **What**: This immersive, in-person professional development experience is designed for 9th–12th grade educators interested in implementing the Siemens Engineering Design curriculum in their classrooms. Participants will engage in 5-days of hands-on engineering design activities, explore project- and program-based instructional strategies, and gain practical experience with industry-aligned tools and resources.
- **When**: June 22-26
- **Where**: Shakopee, Minnesota
- **Cost**: $400
- **Included in registration**: A 3D printer for classroom use, Siemens Engineering Design curriculum access, Master teacher-led professional development, CAD software and instructional resources, and On-site facilitation and instructional support
- **Website**: https://engineering.mnsu.edu/siemens-engineering-design-summer-teacher-training/
- Organized by the Minnesota State Engineering Center of Excellence with funding support from Minnesota Perkins.

- **Trades in Every Classroom Educator Externships**
    - **Who**: 6th-12th-grade educators, any subject with STEM relevance (science, math, engineering, manufacturing, CTE, computer science, agriculture, technology, interdisciplinary STEM, etc.). Formal and non-formal educators are welcome to apply.
    - **What**: The Trades in Every Classroom Externship Program gives educators a behind-the-scenes look at today's workplaces—so you can connect classroom learning to real careers, tools, and industry practices. This cohort-based professional learning experience is designed to make instruction more relevant, engaging, and career-connected for students in grades 6–12.
    - **When**: Summer 2026 with monthly cohort meetings during the academic year
    - **Where**: Statewide, with in-person PD location TBD
    - **Cost**: Free + $2000 Stipend
    - **Application Deadline**: March 2 (priority consideration)
    - **Website**: https://mncoe.my.canva.site/trades-externship
    - Organized by the Minnesota State Energy, Engineering, and Northern Ag Centers of Excellence with funding support from the Minnesota STEM Ecosystem Partnership Grant.
    - **Educator Externships: Industry in Every Classroom** (Flyer)

- **Microelectronics Mini-Externships and Curriculum Training**
    - **Who**: This program is best suited for secondary educators who teach or support: Engineering, manufacturing, or electronics; Physics, mathematics, or applied science; and Computer science, mechatronics, or automation. Educators with experience in electronics, math, or science may have a strong foundation, but the curriculum is designed to be turnkey and well-supported for a broad range of STEM instructors.
    - **What**: The Microelectronics Mini-Externship & Curriculum Training is a professional learning experience for secondary educators who want to bring real-world microelectronics, semiconductor, and advanced manufacturing concepts into their classrooms—confidently and intentionally. This pilot program combines hands-on curriculum training, short industry immersion, and guided planning support so educators can connect what they teach to how technology is designed, built, and used in Minnesota industries today.
    - **When**: Curriculum Training - August 3-7, Mini-Externship (2 days) - dates vary
    - **Where**: Statewide, with curriculum training in metro area
    - **Cost**: Free + $750 Stipend
    - **Application Deadline**: March 2 (priority consideration)
    - **Website**: https://mncoe.my.canva.site/microelectronics-externship/details
    - Organized by the Minnesota State Engineering Center of Excellence with funding support from the Minnesota STEM Ecosystem Partnership Grant.

The Agriculture, Robotics, Automation, & Technology (ARAT) Project

- **Who**: All educators.
- **What**: The Agriculture, Robotics, Automation, & Technology (ARAT) Project is an NSF-funded initiative that brings together community colleges, secondary educators, and industry partners to develop curriculum and professional development in agricultural robotics and automation. Led by AgCentric and CASE with Minnesota college partners, the curriculum introduces core automation and robotics concepts across animal, plant, and food systems, culminating in an open-ended design project that can be implemented flexibly to meet local needs. The project addresses critical national workforce shortages by preparing students for technician careers, supporting college credit and articulation opportunities, and advancing the goals of the NSF Advanced Technological Education (ATE) program.
- **When**: June 22-26
- **Where**: St. Cloud Technical & Community College
- **Cost**: The National Science Foundation will fund participant expenses, including room, board, transportation, and materials. However, schools selected must place a $500 down payment to hold their reservation. AgCentric will reimburse the school $500 after the participant attends the first day of the CASE Institute.
- **Application Deadline**: February 28, 2026
- **Website**: https://www.agcentric.org/education-training/agcentric-case-nsf/
- Organized by the AgCentric / Minnesota State Northern Agricultural Center of Excellence

Small Gas Engine (SGE) BriefCASE

- **Who**: Agriculture, Food and Nature Resources High School Teachers
- **What**: SGE is a specialization-level module in the Mechanical Systems in Agriculture series for high school teachers. The module provides technical applications to mechanical systems, using small gas engines as the instructional tool. Students practice technical skills, including measurements, troubleshooting, documenting an engine teardown and assembly, completing work/repair orders, and reading a service manual.
- **When**: June 16-18, 2026
- **Where**: Owatonna High School in Owatonna, MN
- **Cost**: $1000
- **Registration Deadline**: June 16, 2026
- **Website**: https://www.case4learning.org/events/event-detail/?eid=589
- Organized by the Minnesota State Southern Agriculture Center of Excellence

Midwest Teachers of Transportation and Industrial Areas (MTTIA) Conference

- **Who**: Secondary and Post-Secondary instructors
- **What**: MTTIA is more than a conference—it's a community. Join secondary and post-secondary educators from across the Midwest for hands-on training, networking, and professional development. Learn the latest in vehicle technology and teaching strategies from expert trainers and OE manufacturers. Earn 20 CEUs.
    - **Training Areas**: Automotive, Auto Body, Diesel Equipment, Heavy Truck.
    - **Plus**: evening activities, New Teacher Mentoring, and a trade show."
- **When**: August 3-6, 2026
- **Where**: Central Lakes College | 501 W College Dr, Brainerd, MN 56401
- **Website**: https://www.mttia.org/
- Event is sponsored by the Minnesota State Transportation Center of Excellence.