

CAAT Approach

Prepare students for careers in emerging advanced automotive technologies

Create academic and industry partnerships

Stimulate student interest in STEM (Science, Technology, Engineering and Mathematics) careers

Support curricula creation, adaptation and reform

Advise and collaborate with other NSF centers and projects

Establish seamless 2+2 educational pathways



CAAT Background

- Awarded a grant from the National Science Foundation, the Center for Advanced Automotive Technology began in 2010. It is located at Macomb Community College (Warren, MI) and Wayne State University (Detroit, Michigan) and is one of 32 Advanced Technological Education Centers in the U.S.
- In response to the national importance of the automotive industry to address energy, safety and emissions requirements, there is an industry need for technicians trained in:
 - Connected and Automated Vehicles
 - Powertrain and Electric Vehicle Propulsion Technologies
 - Lightweighting Design



CAAT Website: www.autocaat.org

- Content for students, educators and industry
- Free curriculum resource library
- Advanced automotive technologies, news and events
- Professional development opportunities
- Student and public outreach activities
- CAAT conference
- Monthly e-newsletter
- CAAT and industry webinars
- Social media: Twitter, Facebook, LinkedIn



What can CAAT do for you?

- Website offering advanced automotive technology information and free curriculum resources
- Professional development for educators and industry
- Develop new courses and programs in emerging automotive technology
- Outreach partner to recruit qualified students
- Prepare students for careers in new and developing advanced automotive technologies through:
 - Stimulating student interest in STEM (Science, Technology, Engineering and Mathematics) careers
 - Credentials acquired through these seamless educational pathways:

Macomb Community College

- A two-year Vehicle Development Technician Associate of Applied Science Degree at Macomb Community College
- A one-year Electric Vehicle Development Technology Certificate
- Two-year Associate of Applied Science automotive related degrees and shorter duration certificates

Wayne State University

- A four-year Bachelor of Science Degree in Electrical or Mechanical Engineering Technology at Wayne State University
- A graduate certificate in Electric-drive Vehicle Engineering
- A Master of Science Degree in Electric-drive Vehicle Engineering

CAAT Offers Free STEM Activities for Middle and High School Students:

- In-classroom STEM labs for middle school classrooms
- Career exploration labs for 5th–9th grade student groups and parents
- Auto STEAM Days event featuring Detroit automakers and suppliers focusing on:
 - Automotive design and engineering
 - Manufacturing and technology
- Explore Careers in Manufacturing and Technology
- Week-long summer academies



Technicians install Chevy Volt battery



Students engaged in hands-on STEM activities at Auto STEAM Days



For more information, contact:

The Center for Advanced Automotive Technology

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Center for Advanced Automotive Technology

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Working with educators, industry and government to drive the skills needed for the next generation of automotive technicians, engineering technologists and designers.

 **Macomb
Community College**
Education • Enrichment • Economic Development

Discover. Connect. Advance.™



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