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Deliver high quality curriculum to students with Siemens' world-class Engineering Design and Manufacturing and Automation courses and software.

Our Global Academic Partner program helps teachers and students prepare for the future today with problem-based STEM curriculum and software.

Discover how Siemens can help you to prepare your students for the market demands of Industry 4.0.

To download the curriculum and Siemens software visit:
[siemens.com/solid-edge-educator](https://www.siemens.com/solid-edge-educator)

Curriculum training

Curriculum training is available for teachers who want to learn how to teach project- and problem-based learning with Siemens Engineering Design curriculum. The curriculum training is one week in length.

More information

For more information about scheduling professional development for the Siemens Engineering Design or Manufacturing and Automation courses, contact Matt Bruce at:

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Siemens Digital Industries Software
[siemens.com/software](https://www.siemens.com/software)

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SIEMENS DIGITAL INDUSTRIES
SOFTWARE

Siemens CTE curriculum

Engineering Design and
Manufacturing and Automation



All courseware is designed for use in a comprehensive high school, career center or post-secondary school setting for local, regional or state prepared dual-credit agreement.

Siemens Career Technical Education (CTE) courses contain the following core units of study:

- Engineering design process
- Designing with synchronous technology
- Convergent modeling
- Design for manufacturing

All curricula incorporate the following learning methods:

- Project and problem-based learning
- Integrates with the latest college and career readiness standards and next-generation science standards
- Designed for students to research, design, develop and communicate solutions
- References the engineering problem-solving process
- Requires students to keep an engineering notebook
- Includes Siemens industry certification online exams, available for students at no cost, as well as programmable logic controller (PLC) certification
- Provides a supply list for all course projects

Siemens curriculum includes the following free of charge:

- Curriculum
- Solid Edge® 3D CAD software, Computer-aided manufacturing software and TIA Portal design software
- Solid Edge Certification

Siemens Engineering Design curriculum

Siemens is committed to making its engineering design curriculum effective and affordable for all secondary schools.

The course can be used as a standalone, full-year course or taught in a semester double-period block schedule. It provides a foundation for the SREB Advanced Career program or any similar program. It also has the flexibility to be used independently with students.

Core units and associated projects cover the following topics:

- Engineering design process
- Sketching
- 3D solid modeling/fabrication and 3D printing
- Renderings/working drawings/design presentations
- Assembly modeling/documentation/exploded assemblies/bill-of-materials
- Reverse engineering/engineering features
- Simple machines
- Mechanical systems
- Structures/forces
- Engineering systems

Siemens Manufacturing and Automation

Siemens' Manufacturing and Automation curriculum extends your students' understanding of the entire manufacturing process and is a great follow-up to the Siemens Engineering Design course.

The new Siemens Manufacturing and Automation course contains the following core units of study:

- Engineering design process
- Designing with synchronous technology
- Convergent modeling
- Design for manufacturing
- Design for assembly
- Computer numeric control (CNC) of machines
- G&M code
- Applying CAM software (Solid Edge CAM Pro) to problem solutions
- Automation with programmable logic controllers (PLCs)
- Applying logic software (TIA Portal) in the creation of problem solutions
- Pneumatics design and control

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