Autodesk Education Suites Guide 2012

Autodesk inspires students of all ages to push the boundaries of design to address some of the world’s greatest challenges. From a population boom and climate change to globalization and unpredictable energy costs, the world is changing. Future designers and engineers will play an important role in solving these challenges with creative approaches to improve the way we live.

Autodesk is helping educators think beyond traditional academic borders and encourage new ideas and creative problem solving through the use of advanced technology, helping ensure that today’s students are prepared for the 21st century workplace.

Autodesk in K-12 Education
Creating an effective and relevant learning environment for secondary students requires educators to adapt their approach in the classroom and embrace a world altered by technology. That’s why Autodesk delivers curricula that are easy to implement and do not require technology experts while helping teachers spark young people’s interest in subjects critical in the 21st century.

Build Knowledge
Autodesk offers educators and school districts technology and resources designed to help students see the dynamic connection between science, technology, engineering, arts and math (STEAM).

The Autodesk Digital STEAM Workshop offers an immersive learning experience that encourages students to think critically and creatively while addressing real-world problems.

Autodesk® Design Academy and Autodesk® Animation Academy software suites offer a broad range of 2D and 3D software.

Practice Skills
Autodesk encourages both students and educators to practice and validate their knowledge and skills.

Autodesk partners with Project Lead the Way and VEX Robotics classroom learning programs to bring hands-on, collaborative projects into classrooms.

The Autodesk Digital Study Packet provides video-based tutorials as well as Autodesk Certified User Skills documents that outline core competencies for foundational software skills.

Inspire Creativity
Competitions and extracurricular activities provide students the opportunity to experience real-world challenges with hands-on technology. They also offer the chance to learn important life skills such as teamwork and problem solving in a fun environment.

Autodesk partners with competitions such as FIRST Robotics, VEX Robotics, and WorldSkills International to provide real-world challenges.

Autodesk’s newest consumer products give students and parents the chance to learn, be creative, and play during their free time, on the platforms they prefer.

Autodesk in Post-Secondary Education
Preparing for the transition to their professional careers can be daunting for students. Autodesk offers the technology and resources that help them build the fundamental knowledge and skills necessary to become architects, engineers and digital artists.

Build Knowledge
Autodesk provides technology and resources that enable faculty to prepare students with foundational knowledge through:

• Curricula that help align classroom learning with industry needs.
• Software suites, built upon industry trends in 3D design, engineering, and entertainment.

Practice Skills
Autodesk provides the right learning resources to help ensure that students get the practical skills they need.

• Online training tutorials help students learn to use technology at their own pace.
• Autodesk Training Center (ATC®) sites provide training programs designed specifically for academic audiences.
• Autodesk certification exams help faculty and students assess and validate their industry-level skills.

Inspire Innovation
Competitions and extracurricular activities are an exciting part of student life, helping to build character, leadership, and collaboration skills.

• Autodesk partners with design competitions such as Shell Eco-Marathon, Formula Student, Solar Decathlon, and WorldSkills International.

Autodesk partners with Project Lead the Way and VEX Robotics classroom learning programs to bring hands-on, collaborative projects into classrooms.

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• Autodesk’s newest consumer products give students and parents the chance to learn, be creative, and play during their free time, on the platforms they prefer.

The Autodesk Education Community offers free* software licenses and training resources to teachers and students for personal use.

www.autodesk.com/edcommunity

www.autodesk.com/education
Autodesk Education Master Suite

Autodesk Education Master Suite software and custom curricula are designed to help educators prepare students to use a multidisciplinary approach to architecture, engineering, and digital arts. This comprehensive suite introduces students to tools that support industry trends such as Digital Prototyping, Building Information Modeling (BIM), Digital Entertainment Creation (DEC), sustainable design, and interdisciplinary collaboration.

KEY BENEFITS

• Enables students to move easily between 2D and 3D design environments to design, visualize, and simulate their projects
• Provides online custom curricula that offer interactive exercises, modular projects, and instructor lesson slides
• Integrates Autodesk technology into the classroom with curricula that emphasize design concepts instead of software proficiency

Education Master Suite includes:

• AutoCAD®
• AutoCAD® Architecture
• AutoCAD® Civil 3D®
• AutoCAD® Electrical
• AutoCAD® Map 3D
• AutoCAD® Mechanical
• AutoCAD® MEP
• AutoCAD® Structural Detailing
• Autodesk® Alias® Design
• Autodesk® Ecotect® Analysis
• Autodesk® Inventor® Professional
• Autodesk® Maya®
• Autodesk® Moldflow® Adviser Advanced
• Autodesk® MotionBuilder®
• Autodesk® Mudbox™
• Autodesk® Navisworks® Manage
• Autodesk® Revit® Architecture
• Autodesk® Revit® MEP
• Autodesk® Revit® Structure
• Autodesk® Robot™ Structural Analysis Professional
• Autodesk® Showcase®
• Autodesk® Simulation Multiphysics
• Autodesk® SketchBook® Designer
• Autodesk® Softimage®
• Autodesk® Vault
• Autodesk® 3ds Max®

The following curricula support Education Master Suite:

• Autodesk® Alias® Curriculum
• Autodesk® Civil Engineering Curriculum
• Autodesk® Conceptual Design Curriculum
• Autodesk® Inventor® Education Curriculum
• Autodesk® Sustainable Design Curriculum

For more information, visit www.autodesk.com/curricula.
Autodesk Building Design Suite for Education

Autodesk® Building Design Suite for Education helps educators prepare architecture and engineering students to design, visualize, and simulate their projects with Building Information Modeling (BIM) software and custom curricula. Students can explore sustainable design analysis and modeling principles as well as more effectively communicate their design intent using the tools preferred by professionals.

**KEY BENEFITS**
- Builds an educational foundation with an optimized set of tools that includes the power of BIM centered on the Autodesk® Revit® platform
- Extends BIM data to Autodesk® 3ds Max® Design software to create compelling visualizations
- Helps improve understanding of design intent, increase efficiency, and enable new ways of working with BIM tools to inspire students to create sustainable design and construction
- Incorporates the familiarity of AutoCAD® products for efficient documentation

**Building Design Suite for Education includes:**
- AutoCAD®
- AutoCAD® Architecture
- AutoCAD® Mechanical
- AutoCAD® MEP
- AutoCAD® Structural Detailing
- Autodesk® Ecotect® Analysis
- Autodesk® Inventor® Professional
- Autodesk® Navisworks® Manage
- Autodesk® Revit® Architecture
- Autodesk® Revit® MEP
- Autodesk® Revit® Structure
- Autodesk® Vault
- Autodesk® 3ds Max® Design

**The following curricula support Building Design Suite for Education and Infrastructure Design Suite for Education:**
- Autodesk® BIM for Architecture, Engineering, and Construction Curriculum
- Autodesk® BIM for Structural Engineering Curriculum
- Autodesk® Conceptual Design Curriculum

For more information, visit www.autodesk.com/curricula.

Autodesk Infrastructure Design Suite for Education

Autodesk® Infrastructure Design Suite for Education helps educators prepare students for careers in engineering and construction management with access to comprehensive design and analysis tools used in professional practice. Educators can integrate Building Information Modeling (BIM) technology into the classroom with interactive exercises, modular projects, and instructor lesson slides.

**KEY BENEFITS**
- Helps students to master engineering design and analysis, as well as structural modeling with discipline-specific software, geographic information system (GIS), BIM, and design visualization tools
- Supports multidisciplinary studies by enabling engineers and construction management students to use a more consistent and reliable single digital model
- Extends BIM data to Autodesk® 3ds Max® Design software, enabling students to better communicate design intent and experience advanced visualization

**Infrastructure Design Suite for Education includes:**
- AutoCAD®
- AutoCAD® Civil 3D®
- AutoCAD® Map 3D
- AutoCAD® Mechanical
- AutoCAD® Structural Detailing
- Autodesk® Inventor® Professional
- Autodesk® Navisworks® Manage
- Autodesk® Revit® MEP
- Autodesk® Revit® Structure
- Autodesk® Robot™ Structural Analysis Professional*
- Autodesk® Vault
- Autodesk® 3ds Max® Design
Autodesk Factory Design Suite for Education

Autodesk® Factory Design Suite for Education provides a design workflow and toolset that helps educators teach digital factory layouts and data management to the next generation of industrial engineers, manufacturing engineers, and facilities managers. The suite, featuring Autodesk® Inventor® software, is a complete set of design, engineering, visualization, and simulation tools, which enables educators to go beyond teaching 2D and 3D layouts to address digital factory layout workflows.

**KEY BENEFITS**

- Helps elevate the design expertise of next-generation manufacturing, industrial, and facilities engineers using powerful tools to tackle new challenges in the highly competitive global marketplace
- Provides educators and students with a comprehensive and flexible set of tools to extend collaboration within and across design and manufacturing disciplines
- Equips students with tools to initiate 2D or 3D layouts and seamlessly incorporate intelligent 3D geometry, including machinery, tooling, HVAC, piping, and electrical

Factory Design Suite for Education includes:
- AutoCAD® Architecture
- AutoCAD® Mechanical
- Autodesk® Factory Design Utilities
- Autodesk® Inventor® Professional
- Autodesk® Navisworks® Manage
- Autodesk® Showcase®
- Autodesk® Vault
- Autodesk® 3ds Max® Design

Autodesk Product Design Suite for Education

Autodesk® Product Design Suite for Education provides a design workflow toolset that helps educators teach Digital Prototyping and product data management to aspiring designers and mechanical engineers. With Autodesk® Inventor® software at the core, the suite gives students a complete set of design, engineering, visualization, and simulation tools, which enables educators to go beyond teaching 3D solid modeling to address the Digital Prototyping workflow.

**KEY BENEFITS**

- Provides students with tools to sketch, simulate, optimize, and validate their coursework as they learn to predict how their designs will perform under real-world conditions
- Features Autodesk® Vault software, which enables students to manage coursework and lab assignments in the same way they will be expected to manage their workflows in industry
- Provides educators and students with a comprehensive and flexible set of tools to extend collaboration within and across disciplines, bringing consistency to learning outcomes and educating students in the same way that industry operates

Product Design Suite for Education includes:
- AutoCAD® Electrical
- AutoCAD® Mechanical
- Autodesk® Alias® Design
- Autodesk® Inventor® Professional
- Autodesk® Moldflow® Adviser Advanced*
- Autodesk® Mudbox™
- Autodesk® Showcase®
- Autodesk® Simulation Multiphysics
- Autodesk® SketchBook® Designer
- Autodesk® 3ds Max® Design

The following bonus software is also included in the suite:
- AutoCAD®
- Autodesk® Inventor® Fusion
- Autodesk® Vault
Autodesk Entertainment Creation Suite for Education

Autodesk® Entertainment Creation Suite for Education offers academic institutions exceptional value, providing a streamlined solution for teaching 3D modeling, digital sculpting, texture painting, animation, effects, rendering, and compositing. The various software titles included in the suite expose students to a broad set of professional tools and support development of specialized skills that are easily transferable across a range of industries.

**KEY BENEFITS**

- The suite enables aspiring digital artists to draw from a broad palette of complementary and specialized tools and gain the flexibility to use the best tool for the job.
- It offers students the opportunity to learn how to work within modern, flexible pipelines that support today’s projects and scale for tomorrow’s opportunities.
- Single-step interoperability and more consistent user interfaces facilitate working with multiple Autodesk products to help make specialized toolsets more accessible.

**Entertainment Creation Suite for Education includes:**

- Autodesk® Maya®
- Autodesk® MotionBuilder®
- Autodesk® Mudbox™
- Autodesk® SketchBook® Designer
- Autodesk® Softimage®
- Autodesk® 3ds Max®

The following curriculum supports Entertainment Creation Suite for Education:

- Autodesk® Industry Careers Framework for Games and Animation

For more information, visit www.autodesk.com/curricula.

Autodesk Design Suite for Education

Autodesk® Design Suite for Education provides proven and intuitive conceptual design, visualization, presentation, and sketching tools that can help educators prepare students for careers in design. Students can increase their technical knowledge and begin their careers with the experience and skills required in a highly competitive global marketplace.

**KEY BENEFITS**

- Combines powerful AutoCAD® software with enhanced design and visual communication tools for all levels of users.
- Supplies students with the tools to conceptualize, design, visualize, and present their ideas as well as analyze and improve how their projects will perform under real-world conditions.
- Provides educators and students with a comprehensive and flexible set of tools to extend collaboration within and across disciplines.

**Design Suite for Education includes:**

- AutoCAD®
- Autodesk® Alias® Design
- Autodesk® Mudbox™
- Autodesk® Showcase®
- Autodesk® SketchBook® Designer
- Autodesk® 3ds Max® Design

Image courtesy of Hangzhou Xuangi Science & Technology Information Corporation

Image courtesy of Tait Towers, Inc.
Autodesk Design Academy

Autodesk® Design Academy helps educators inspire secondary-school students to pursue academic degrees and future careers in architecture, engineering, and design. The comprehensive software’s design, visualization, and simulation capabilities enable students to easily move between 2D and 3D design environments and fully experience their creative ideas digitally.

**KEY BENEFITS OF DESIGN ACADEMY AND ANIMATION ACADEMY**

- Gives students hands-on experience with the same tools that are used by industry professionals
- Offers educators a unique opportunity to enrich and enhance a students learning experience by including highly visual and interactive lessons as part of a stand-alone program or integrated into an existing class
- Design Academy helps advance students’ knowledge in key areas ranging from math and science to design basics, pre-architecture, pre-engineering, robotics, and sustainable design
- Animation Academy enables students to discover the foundations of 3D applications, with applied exercises to explore techniques

**Design Academy includes:**

- AutoCAD®
- AutoCAD® Architecture
- AutoCAD® Civil 3D®
- AutoCAD® Mechanical
- Autodesk® Inventor® Professional
- Autodesk® Revit® Architecture
- Autodesk® SketchBook® Designer
- Autodesk® Vault
- Autodesk® 3ds Max® Design

**Animation Academy includes:**

- Autodesk® Maya®
- Autodesk® MotionBuilder®
- Autodesk® Mudbox™
- Autodesk® SketchBook® Designer
- Autodesk® 3ds Max®

**The following curriculum supports Animation Academy and Design Academy:**

- Autodesk® Digital STEAM Workshop

For more information, visit [www.autodesk.com/digitalsteam](http://www.autodesk.com/digitalsteam).

Autodesk Animation Academy

Developed specifically for secondary schools, Autodesk® Animation Academy combines interactive and customizable learning content with the 3D software used by industry professionals around the world. Using these tools, educators can inspire students to look into careers in digital arts, games, entertainment, and visualization fields.

**CURRICULUM FOR DESIGN ACADEMY AND ANIMATION ACADEMY**

Autodesk Digital STEAM Workshop introduces students to the Autodesk® 3D toolset using an innovative curriculum that:

- Supports and encourages development of 21st century skills, including digital literacy, creativity, critical thinking, problem solving, collaboration, and effective communication
- Exposes students to a variety of career paths through relevant, engaging, and creative story-based projects
- Supports learning Autodesk software by using real-time 3D, games, and easy-to-follow videos

To learn more, visit [www.autodesk.com/digitalsteam](http://www.autodesk.com/digitalsteam).
Learn About Industry Trends

Remove Barriers to Better Decisions with Building Information Modeling
Building Information Modeling (BIM) is an intelligent model-based process that provides insight for creating and managing building and infrastructure projects faster, more economically, and with less environmental impact. BIM is also a principle that many architecture and engineering firms are using to drive their business forward.

Educators can help students learn to use intelligent models created through a BIM process to better position them when moving into their career.
Visit www.autodesk.com/bim

Design World’s Best Products with Digital Prototyping
In the global manufacturing marketplace, manufacturers rely on Digital Prototyping to increase their competitive advantage with differentiated, more innovative products, while increasing revenue by delivering the right product to market at the right time.

Educators can help ensure students entering the workplace have an advantage by understanding the principles of the Digital Prototyping approach to product development.
Visit www.autodesk.com/digitalprototyping

Support Creativity with Digital Entertainment Creation
Using technology to increase creative capability and improve production efficiency is critical to today’s film and game industries. Digital Entertainment Creation technology from Autodesk enables student and commercial artists to use technology to create more innovative entertainment experiences, more easily transform their creative ideas into innovative entertainment, and create more believable digital worlds and characters.
Visit www.autodesk.com/modernpipeline

Teach Sustainable Design
Nearly all industries—from consumer goods and transportation to architecture, utilities, and urban planning—are asking designers and engineers to deliver more sustainable products and projects. Autodesk offers educational tools and resources to help educators learn and teach sustainable design.
Visit www.autodesk.com/sustainabledesignedu

Explore Additional Resources

Download Free Software
The Autodesk Education Community is an online resource with over two million members that allows educators and students to download—for free**—the same software used by professionals worldwide. It’s also where curriculum and training materials can be found that provide the product know-how to design, visualize, and simulate ideas.
Visit www.autodesk.com/edcommunity

Autodesk Subscription
Autodesk® Subscription allows customers to extend the value of their software investment with access to the latest releases, powerful web services, and expedited technical support.
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Autodesk offers academic institutions and schools affordable pricing and flexible licensing terms on Autodesk® software, curricula, and training, including significant discounts for volume purchases. Autodesk Education suites are generally available in both one-year term and perpetual license forms*** and can be installed using either stand-alone or network licensing.
To purchase any Autodesk Education suite, contact an Autodesk Academic Value Added Reseller by visiting www.autodesk.com/reseller.

About Autodesk
Autodesk, Inc., is a leader in 3D design, engineering, and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries—including the last 16 Academy Award® winners for Best Visual Effects—use Autodesk software to design, visualize, and simulate their ideas. Since its introduction of AutoCAD® software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software for global markets. For additional information about Autodesk, visit www.autodesk.com.

*Autodesk Moldflow Adviser Advanced and Autodesk Robot Structural Analysis Professional are initially delivered via download from www.autodesk.com/educationsuites.

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***Some suites may not be offered in both term and perpetual versions in certain regions.