3S DASSAULT SYSTEMES

SOLIDWORKS xDesign for Education Specialization

Develop SOLIDWORKS xDesign Skills for Industry. Master SOLIDWORKS xDesign: sketching, features, patterns, and assemblies.

Instructor: SOLIDWORKS

Included with **coursera PLUS** • Learn more

5 course series
Get in-depth knowledge of a subject

4.7 ★
(22 reviews)

Beginner level
No prior experience required

4 weeks to complete
at 10 hours a week

Flexible schedule
Learn at your own pace

What you'll learn

✓ Gain a comprehensive understanding of SOLIDWORKS xDesign, from fundamental sketching to advanced assembly techniques.

✓ Master the tools and techniques necessary to efficiently design and modify complex parts and assemblies.

✓ Develop the skills to create accurate 3D models, parts, and assemblies for various engineering and design applications.

Skills you'll gain

Engineering Drawings | Computer-Aided Design | Design Elements And Principles | SolidWorks (CAD) | Technical Drawing | 3D Modeling | Mechanical Engineering

Mechanical Design | Technical Design | Assembly Drawing | Engineering Design Process | View less skills

Details to know

in **Shareable certificate**
Add to your LinkedIn profile

▤ Taught in English

See how employees at top companies are mastering in-demand skills

PETROBRAS **TATA** **DANONE**

Capgemini **P&G** **L'ORÉAL**

Advance your subject-matter expertise

- Learn in-demand skills from university and industry experts
- Master a subject or tool with hands-on projects
- Develop a deep understanding of key concepts
- Earn a career certificate from Dassault Systèmes

Specialization - 5 course series

This Specialization helps users enhance their SOLIDWORKS xDesign skills by solving CAD problems to prepare for the SOLIDWORKS 3D Creator Associate exam.
Access powerful capabilities for Engineering with SOLIDWORKS xDesign at a low price, $72 (excluding taxes), follow this link : https://go.3ds.com/CXD1 ⬈
In this Specialization, Learners will create and modify sketches, apply material addition and removal features, generate patterns, and assemble parts using mates.
Designed for both classroom and self-paced learning, this module aligns with industry standards and supports skill development for real-world engineering applications.

Applied Learning Project

Learners will work on hands-on CAD projects that involve creating and modifying sketches, applying key modeling features, and assembling parts using mates. These projects simulate real-world design challenges, helping learners develop problem-solving skills and prepare for industry applications, including the SOLIDWORKS 3D Creator Associate exam.

Read less

xDesign Foundations: Sketching and Extrusion
Course 1 • 6 hours

Course details ⌄

What you'll learn

Welcome to xDesign Foundations: Sketching and Extrusion, the first course in the SOLIDWORKS xDesign for Education Specialization.

In this course, you will learn how to use SOLIDWORKS xDesign to solve CAD problems. The problems involve creating a 3D object from a 2D sketch using the Extruded Boss/Base feature. You will also learn about the sketch tools & end conditions for extrude feature.

Upon completion of this learning module, you will be able to:
- Create sketch profiles
- Extrude the sketch profiles
- Create sketch fillets/chamfers
- Convert & Offset Entities in a sketch
- Create sketch entities using mirror command
- Use start & end conditions for extrude boss

This course is ideal for beginners and those new to SOLIDWORKS xDesign, particularly students, educators, and early-career professionals in engineering and design.

Software Prerequisites:
3D Creator

Access powerful capabilities for Engineering with SOLIDWORKS xDesign at a low price, $72 (excluding taxes), follow this link : https://go.3ds.com/CXD1

Read less

Skills you'll gain

Computer-Aided Design   SolidWorks (CAD)   3D Modeling   Mechanical Engineering   Mechanical Design   Engineering Design Process

xDesign Advanced Sketching and Reference Geometry
Course 2 • 8 hours

Course details ⌃

What you'll learn

Welcome to xDesign Advanced Sketching and Reference Geometry, the second course in the SOLIDWORKS xDesign for Education Specialization. We recommend completing Course 1(xDeisgn Foundations: Sketching and Extrusion) before starting this course.

This course dives deeper into 2D sketching techniques and introduces reference geometry tools to enhance your modeling precision and flexibility.

Upon completion of this learning module, you will be able to:
- Create linear sketch patterns
- Create circular sketch patterns
- Create reference planes and axes.
- Create slots in the sketch profile.

This course is perfect for learners ready to level up from the basics and tackle more advanced modeling techniques.

Software Prerequisites:
3D Creator

Access powerful capabilities for Engineering with SOLIDWORKS xDesign at a low price, $72 (excluding taxes), follow this link : https://go.3ds.com/CXD1

Read more

Skills you'll gain

SolidWorks (CAD)   3D Modeling   Mechanical Engineering   Computer-Aided Design   Technical Drawing   Engineering Drawings

xDesign Revolution and Cut Features
Course 3 • 9 hours

Course details ⌃

What you'll learn

Welcome to xDesign Revolution and Cut Features, the third course in the SOLIDWORKS xDesign for Education Specialization. To get the most out of this course, you should first complete the previous two courses in the series.

This course focuses on feature refinement and advanced geometry creation using cuts and revolved features.

Upon completion of this learning module, you will be able to:
- Create extruded cuts
- Apply fillets/chamfers
- Create revolve boss
- Apply revolve cut

This course is ideal for learners who want to explore new tools for creating axisymmetric objects and refining their designs.

Software Prerequisites:
3D Creator

Access powerful capabilities for Engineering with SOLIDWORKS xDesign at a low price, $72 (excluding taxes), follow this link : https://go.3ds.com/CXD1

Read less

Skills you'll gain

SolidWorks (CAD)   3D Modeling   Mechanical Engineering   Mechanical Design   Computer-Aided Design

---

xDesign Feature Patterns and Sweeps
Course 4 • 8 hours

Course details ⌃

What you'll learn

Welcome to xDesign Feature Patterns and Sweeps, the fourth course in the SOLIDWORKS xDesign for Education Specialization. Prior knowledge from the earlier courses is strongly recommended.

This course teaches powerful modeling tools for creating repetitive or complex geometry efficiently.

Upon completion of this learning module, you will be able to:
- Create mirror feature
- Apply linear pattern
- Apply circular pattern
- Create sweep / sweep cut

This course is perfect for learners looking for advanced design scenarios and time-saving model creation.

Software Prerequisites:
3D Creator

Access powerful capabilities for Engineering with SOLIDWORKS xDesign at a low price, $72 (excluding taxes), follow this link : https://go.3ds.com/CXD1

Read more

Skills you'll gain

SolidWorks (CAD)   3D Modeling   Technical Design   Design Elements And Principles   Computer-Aided Design

---

xDesign Assemblies and Exam Level Part Modeling
Course 5 • 11 hours

Course details ⌃

What you'll learn

Welcome to xDesign Assemblies and Exam Level Part Modeling, the final course in the SOLIDWORKS xDesign for Education Specialization. Make sure to complete the first four courses for a smooth experience.

This course brings together everything you've learned and applies it to real-world part modeling and assembly challenges.

Upon completion of this learning module, you will be able to:
- Create 3D objects from 2D sketch
- Create mates in an assembly

This final step prepares you for real-world projects.

Software Prerequisites:
3D Creator

Access powerful capabilities for Engineering with SOLIDWORKS xDesign at a low price, $72 (excluding taxes), follow this link : https://go.3ds.com/CXD1

Read less

Skills you'll gain

SolidWorks (CAD)   Assembly Drawing   Mechanical Design   Mechanical Engineering   Computer-Aided Design   Technical Design   3D Modeling

Earn a career certificate

Add this credential to your LinkedIn profile, resume, or CV. Share it on social media and in your performance review.

Instructor

SOLIDWORKS
Dassault Systèmes
10 Courses • 7,795 learners

Offered by
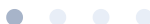
Dassault Systèmes
Learn more

Why people choose Coursera for their career

Felipe M.
Learner since 2018

"To be able to take courses at my own pace and rhythm has been an amazing experience. I can learn whenever it fits my schedule and mood."

Earn a degree from world-class universities - 100% online

Explore degrees →
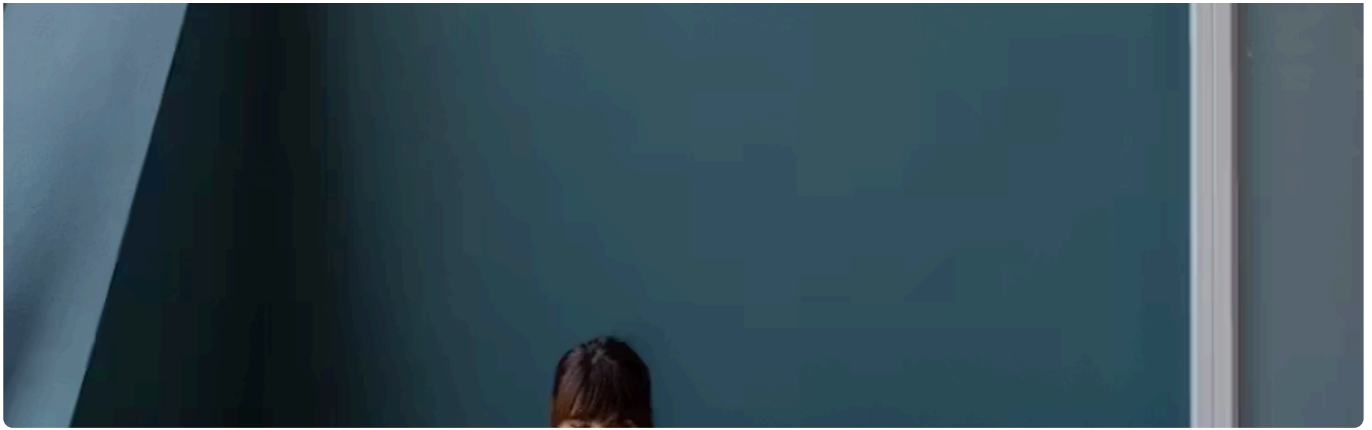
Join over 3,400 global companies that choose Coursera for Business

Upskill your employees to excel in the digital economy

Learn more →

Frequently asked questions

⌃ **Do I need to take the courses in a specific order?**

Yes, the courses in this specialization are designed to be taken in a specific order. Each lesson builds progressively on the previous one, following a game-like structure that challenges you to tackle increasingly complex design problems.

⌃ **Is this course really 100% online? Do I need to attend any classes in person?**

This course is completely online, so there's no need to show up to a classroom in person. You can access your lectures, readings and assignments anytime and anywhere via the web or your mobile device.

⌃ **Can I just enroll in a single course?**

Yes! To get started, click the course card that interests you and enroll. You can enroll and complete the course to earn a shareable certificate. When you subscribe to a course that is part of a Specialization, you're automatically subscribed to the full Specialization. Visit your learner dashboard to track your progress.

Show all 6 frequently asked questions ⌄

More questions

ⓘ **Visit the learner help center**

Financial aid available, learn more

Skills

Artificial Intelligence (AI)

Cybersecurity

Data Analytics

Digital Marketing

English Speaking

Generative AI (GenAI)

Microsoft Excel

Microsoft Power BI

Project Management

Python

Certificates & Programs

Google Cybersecurity Certificate

Google Data Analytics Certificate

Google IT Support Certificate

Google Project Management Certificate

Google UX Design Certificate

IBM Data Analyst Certificate

IBM Data Science Certificate

Machine Learning Certificate

Microsoft Power BI Data Analyst Certificate

UI / UX Design Certificate

Industries & Careers

Business

Computer Science

Data Science

Education & Teaching

Engineering

Finance

Healthcare

Human Resources (HR)

Information Technology (IT)

Marketing

Career Resources

Career Aptitude Test

Examples of Strengths and Weaknesses for Job Interviews

High-Income Skills to Learn

How Does Cryptocurrency Work?

How to Highlight Duplicates in Google Sheets

How to Learn Artificial Intelligence

Popular Cybersecurity Certifications

Preparing for the PMP Certification

Signs You Will Get the Job After an Interview

What Is Artificial Intelligence?

Coursera

About

What We Offer

Leadership

Careers

Catalog

Coursera Plus

Professional Certificates

MasterTrack® Certificates

Degrees

For Enterprise

For Government

For Campus

Become a Partner

Social Impact

Free Courses

Share your Coursera learning story

Community

Learners

Partners

Beta Testers

Blog

The Coursera Podcast

Tech Blog

More

Press

Investors

Terms

Privacy

Help

Accessibility

Contact

Articles

Directory

Affiliates

Modern Slavery Statement

Manage Cookie Preferences