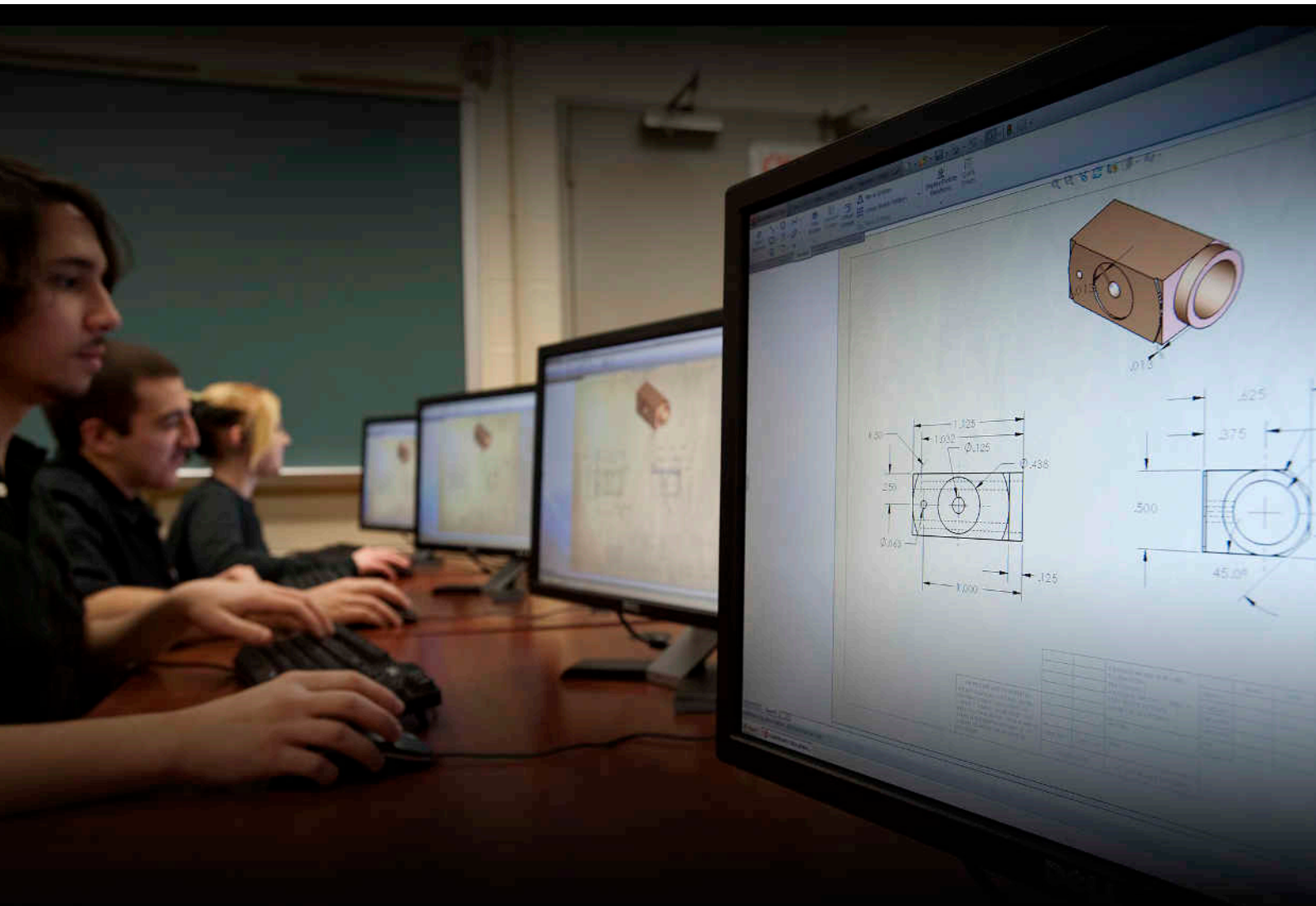




SOLIDWORKS EDUCATION CURRICULUM

FOR CAD PROFESSIONALS



**3D DESIGN FOR
THE REAL WORLD**

Invest the time to learn how to developing the next generation of designs. Here's what we'll teach you to reach that potential.



Curriculum for CAD Professionals

SOLIDWORKS Essentials

Introduction, SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling, Symmetry and Draft, Patterning, Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners, and Smart Components, Assembly Editing, Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimension, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Curriculum for CAD Experts

SOLIDWORKS Essentials

Introduction, SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling Symmetry and Draft, Patterning Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners, and Smart Components, Assembly Editing, Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimensions, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Advanced Part Modeling

Multi-body Design Techniques, Saving Solid Bodies, Sketching with Splines, Introduction to Sweeping, Working with Curves, Advanced Sweeping, Boundary Feature and Lofting

Surface Modeling

Understanding Surfaces, Introduction to Surfacing, Solid-Surface Hybrid Modeling, Repairing and Editing Imported Geometry, Advanced Surface Modeling, Blends and Patches

SOLIDWORKS Routing - Piping and Tubing

Introduction, Fundamentals of Routing, Piping Route, Piping Fittings, Tubing Routes, Piping and Tubing Changes, Creating Routing Components

Sheet Metal

Sheet Metal Flange Method, Sheet Metal Convert Method, Multi-body Sheet Metal Parts, Sheet Metal Forming Tools, Additional Sheet Metal Features and Techniques

Weldments

Weldments, Weldment Drawings

Curriculum for CAE Professionals

Introduction

SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling, Symmetry and Draft, Patterning, Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners, and Smart Components, Assembly Editing Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimension, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Advanced Part Modeling

Multi-body Design Techniques, Saving Solid Bodies, Sketching with Splines, Introduction to Sweeping, Working with Curves, Advanced Sweeping, Boundary Feature and Lofting

SOLIDWORKS Simulation

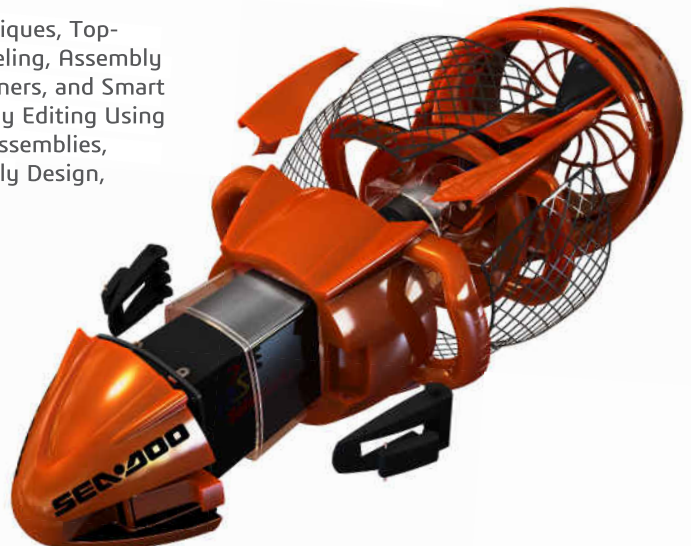
The Analysis Process, Mesh Controls, Stress Concentrations and Boundary Conditions, Assembly Analysis with Contacts, Symmetrical and Free Self-Equilibrating Assemblies, Assembly Analysis with Connectors and Mesh Refinement, Compatible/Incompatible Meshes, Analysis of Thin Components, Mixed Meshing Shells & Solids, Mixed Meshing Solids, Beams & Shells

SOLIDWORKS Simulation Professional

Frequency Analysis of Parts, Frequency Analysis of Assemblies, Buckling Analysis, Thermal Analysis, Thermal Analysis with Radiation, Fatigue Analysis, Drop Test Analysis

SOLIDWORKS Motion Course

Introduction to Motion Simulation & Forces, Building a motion model & post processing, Introduction to contacts, springs & dampers, Advanced contact, Curve to curve contact, Motion optimization, Flexible joints, Redundancies, Export to FEA, Event based simulation



Curriculum for CAE Experts

SOLIDWORKS Essentials

Introduction, SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling Symmetry and Draft, Patterning, Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners and Smart Components, Assembly Editing, Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimension, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Advanced Part Modeling

Multi-body Design Techniques, Saving Solid Bodies, Sketching with Splines, Introduction to Sweeping, Working with Curves, Advanced Sweeping, Boundary Feature and Lofting

SOLIDWORKS Simulation

The Analysis Process, Mesh Controls, Stress Concentrations and Boundary Conditions, Assembly Analysis with Contacts, Symmetrical and Free Self-Equilibrating Assemblies, Assembly Analysis with Connectors and Mesh Refinement, Compatible/ Incompatible Meshes, Analysis of Thin Components, Mixed Meshing Shells & Solids, Mixed Meshing Solids, Beams & Shells

SOLIDWORKS Simulation Professional

Frequency Analysis of Parts, Frequency Analysis of Assemblies, Buckling Analysis, Thermal Analysis, Thermal Analysis with Radiation, Fatigue Analysis, Drop Test Analysis

SOLIDWORKS Motion Course

Introduction to Motion Simulation & Forces, Building a motion model & post processing, Introduction to contacts, springs & dampers, Advanced contact, Curve to curve contact, Motion optimization, Flexible joints, Redundancies, Export to FEA, Event based simulation

SOLIDWORKS Simulation

Premium: Nonlinear

Introduction to Non linear structural analysis, Geometric non linear analysis, Material Models and constitutive relations, Numerical procedure for non linear FEA, Contact Analysis, Large Displacement Analysis, Nonlinear static buckling analysis, Plastic deformation, Hardening rules, Non linear contact analysis

SOLIDWORKS Simulation

Premium: Dynamics

Vibration of a Pipe, Transient shock analysis according to MILS-STD-810G, Harmonic Analysis of a Bracket, Response spectrum analysis, Nonlinear Dynamic Analysis of an Electronic Enclosure

Curriculum for CFD Experts

SOLIDWORKS Essentials

Introduction, SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling Symmetry and Draft, Patterning, Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners and Smart Components, Assembly Editing, Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimension, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Advanced Part Modeling

Multi-body Design Techniques, Saving Solid Bodies, Sketching with Splines, Introduction to Sweeping, Working with Curves, Advanced Sweeping, Boundary Feature and Lofting

SOLIDWORKS Flow Simulation Course

Creating a SOLIDWORKS Flow Simulation Project, Meshing, Thermal Analysis, Conjugate heat transfer, Porous media, Rotating Reference frames, Parametric study, Particle Trajectory

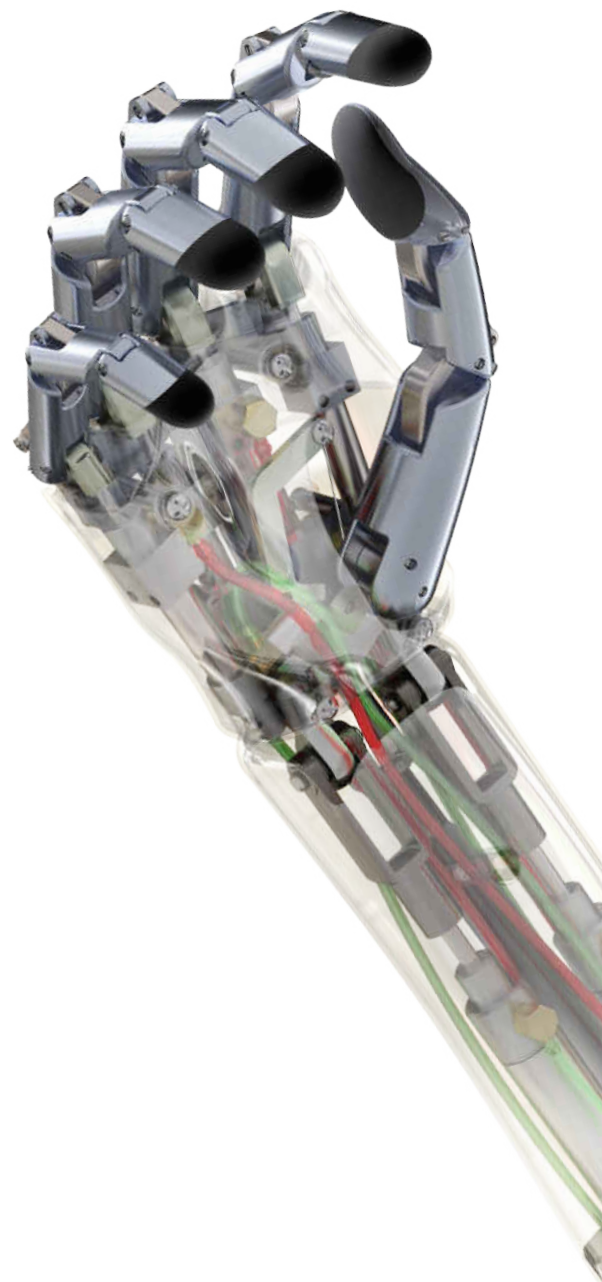
Curriculum for Diploma in CAD/CAE

SOLIDWORKS Essentials

Introduction, SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling Symmetry and Draft, Patterning, Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners and Smart Components, Assembly Editing, Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies



Curriculum for Mold Design

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimension, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Advanced Part Modeling

Multi-body Design Techniques, Saving Solid Bodies, Sketching with Splines, Introduction to Sweeping, Working with Curves, Advanced Sweeping, Boundary Feature and Lofting

Surface Modeling

Understanding Surfaces, Introduction to Surfacing, Solid-Surface Hybrid Modeling, Repairing and Editing Imported Geometry, Advanced Surface Modeling, Blends and Patches

SOLIDWORKS Routing - Piping and Tubing

Introduction, Fundamentals of Routing, Piping Route, Piping Fittings, Tubing Routes, Piping and Tubing Changes, Creating Routing Components

Sheet Metal

Sheet Metal Flange Method, Sheet Metal Convert Method, Multi-body Sheet Metal Parts, Sheet Metal Forming Tools, Additional Sheet Metal Features and Techniques

SOLIDWORKS Simulation

The Analysis Process, Mesh Controls, Stress Concentrations and Boundary Conditions, Assembly Analysis with Contacts, Symmetrical and Free Self-Equilibrating Assemblies, Assembly Analysis with Connectors and Mesh Refinement, Compatible/Incompatible Meshes, Analysis of Thin Components, Mixed Meshing Shells & Solids, Mixed Meshing Solids, Beams & Shells

SOLIDWORKS Simulation Professional

Frequency Analysis of Parts, Frequency Analysis of Assemblies, Buckling Analysis, Thermal Analysis, Thermal Analysis with Radiation, Fatigue Analysis, Drop Test Analysis

SOLIDWORKS Motion Course

Introduction to Motion Simulation & Forces, Building a motion model & post processing, Introduction to contacts, springs & dampers, Advanced contact, Curve to curve contact, Motion optimization, Flexible joints, Redundancies, Export to FEA, Event based simulation

SOLIDWORKS Simulation Premium: Nonlinear

Introduction to Non linear structural analysis, Geometric non linear analysis, Material Models and constitutive relations, Numerical procedure for non linear FEA, Contact Analysis, Large Displacement Analysis, Nonlinear static buckling analysis, Plastic deformation, Hardening rules, Non linear contact analysis

SOLIDWORKS Simulation Premium: Dynamics

Vibration of a Pipe, Transient shock analysis according to MILS-STD-810G, Harmonic Analysis of a Bracket, Response spectrum analysis, Nonlinear Dynamic Analysis of an Electronic Enclosure

SOLIDWORKS Essentials

Introduction, SOLIDWORKS Basics and the User Interface, Introduction to Sketching, Basic Part Modeling Symmetry and Draft, Patterning, Revolved Features, Shelling and Ribs, Editing: Repairs, Editing: Design Changes, Configurations

Assembly Modeling

Advanced Mate Techniques, Top-Down Assembly Modeling, Assembly Features, Smart Fasteners and Smart Components, Assembly Editing, Using Configurations with Assemblies, Layout-based Assembly Design, Large Assemblies

SOLIDWORKS Drawings

Drawing Sheets and Views, Dimension, Annotations, Assembly Drawing Views, Sheet Formats and Templates, Bill of Materials and Tables, Drawing References and Comparison

Mold Design Using SOLIDWORKS

Surface Concepts and Imported Geometry, Core and Cavity, Side Cores and EDM Design, Advanced Parting Lines, Shut-Off Surfaces and Cores, Using Surfaces for Model Prep and Interlocks, Using Surfaces for Mold Design Features, Completing the Mold Base

SOLIDWORKS Plastics

Basic Flow Analysis, Detecting Air Traps, Detecting Short Shots, The Model Manager, Injection Locations and Sink Marks, Multiple Cavity Molds, Runner-Balancing, Gate Freeze, Optimizing Cooling Time, Using Inserts

Our 3DEXPERIENCE® Platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 170,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.



3DEXPERIENCE®