

# MSC LearningCenter



**The MSC Learning Center offers an online e-Learning subscription making it easy for you to take training from any internet enabled device!**

**The MSC Learning Center is designed to suit our customer needs:**

- Increase number of trained and qualified engineers with simulation skills
- Refresh and/or gain new skill sets
- Increased access and decreased cost for training
- Accommodates your schedule without travel
- Certification Exams for validating simulation skills

**MSC e-Learning Academic Subscription:**

Subscribers to the MSC e-Learning Academic Subscription will receive the following for 1 year from time of purchase:

- Individual named user account for the MSC Learning Center
- Unlimited access to all training courses:
  - Adams
  - Actran
  - Dytran
  - CFD Solutions
  - Easy5
  - Flightloads
  - MSC Nastran
  - Marc
  - MaterialCenter
  - Patran
  - MSC Apex
  - SimDesigner
  - SimManager
  - Sinda

- Online courses contain lectures, demo videos, audio from subject matter experts, workshops, and review questions
- Become MSC Software Certified professional by taking certification exams
- Collaboration with simulation community through discussion forums
- Stay up to date with the latest features in MSC Software Products

**Value:**

- If you are in the middle of a project and need to gain insight on a new task or simulation method quickly drop into the MSC Learning Center to browse through the courses and topics of interest to quickly get up to speed
- Flexibility, Convenience and Easy Access
- Interactive and Hands-on Training
- Community access that allows user to ask MSC SME's questions
- Accessed from any internet enabled device
- Quickly identify the skills you are proficient at and the skills you need to focus on developing
- Career advancement/Development
- Prove to your current/future employer that you have sufficient CAE skills to add value on projects



## Courses Offered:

### Actran e-Learning Content

Course #	Course Name
1	Actran Acoustics – Basics
2	Actran Acoustics – Advanced
3	Actran VibroAcoustics – Basics
4	Actran VibroAcoustics – Advanced
5	Actran AeroAcoustics – Basic

### Adams e-Learning Content

Course #	Course Name
ADM701	Complete Multibody Dynamics Analysis with Adams
ADM702	Fundamentals of Multibody Dynamics Analysis with Adams
ADM703A	Advanced Modeling Elements and Techniques with Adams/Solver
ADM703B	Adams/Solver Theory: Achieving Robust, Converged Solutions
ADM703C	Writing User Subroutines in Adams/Solver
ADM704A	Advanced Parametrics, Design Sensitivity and Optimization using Adams/View
ADM704B	Automating Tasks using Adams/View Scripting, Macros, and GUI Customization
ADM705	Python Scripting in Adams
ADM706	Adams/Explore
ADM708	What's New in Adams
ADM710	Flex Body Dynamics and Modal Stress Recovery using Adams
ADM711	Control System Integration with Adams using MATLAB or Easy5
ADM720	Frequency Domain Analysis using Adams/Vibration
ADM730	Design of Experiments DOE and Stochastics Monte Carlo Analyses using Adams
ADM740	Vehicle Modeling and Simulation using Adams/Car
ADM741	Vehicle Modeling and Simulation using Adams/Driveline
ADM743	Formula SAE Applications using Adams/Car
ADM750	Gear, Belt, and Chain Modeling with Adams/Machinery
ADM761	Basic Suspension and Full Vehicle Analysis using Adams/Chassis
ADM7N2	Adams Tracked Vehicle
GAT101	Advanced drivetrain modeling with Adams Gear AT

### Apex e-Learning Content

Tutorial #	Course Name
1	MSC Apex Modeler – Introduction
2	MSC Apex Modeler – FEM Import / Export
3	MSC Apex Modeler – Incremental Midsurfacing Process
4	MSC Apex Modeler – Midsurface Geometry Repair
5	MSC Apex Modeler – Model Structure
6	MSC Apex Modeler – Solid Geometry Creation and Editing
7	MSC Apex Structures – Glued Assembly Analysis
8	MSC Apex Structures – Linear Static Analysis
9	MSC Apex Structures – Performing a Modal Analysis
Apex Kit	Practicals for Strength of Materials and other Engineering Concepts using MSC Apex
Apex 120	Linear Static and Normal Modes Analysis using MSC Apex

### CFD Solutions e-Learning

Software	Class Name
SC/Tetra	SC/Tetra 101 - An Introduction to SC/Tetra
	SC/Tetra 102 - An Introduction to SC/Tetra
	Importing and Cleaning CAD Data
	Mesh Generation
scSTREAM	scSTREAM 101 - An Introduction to scSTREAM
	scSTREAM 102 - An Introduction to scSTREAM
	Scattering of Spray Paint Particles Inside a Naturally Ventilated Building
	scSTREAM for Architecture - At a Glance
scSTREAM / Heat-Designer	scSTREAM for Electronics 101 - An Introduction
	scSTREAM for Electronics 102 - An Introduction
	V13 New Features
SC/Tetra / scFLOW scSTREAM / Heat-Designer	Basics of CFD - An Introduction to the Computational Fluid Dynamics
	Advanced Postprocessing
	V13 New Features: Postprocessor & Tools
SC/Tetra / scFLOW	V13 New Features
	SmartBlades Introduction
	Automated Cerebral Aneurysm Analysis
PICLS	PICLS - At a Glance

### Digimat e-Learning

Course #	Class Name
1	Introduction to Multi-scale Material Modeling using Digimat
2	Chopped Fiber Reinforced Plastic

### Dytran e-Learning

Course #	Class Name
DYT101	Dytran Structures and Fluids
DYT103	Introduction to Airbag Analysis and occupant safety using Dytran

### Easy5 e-Learning

Course #	Class Name
EAS101	Dynamic System Modeling and Simulation using Easy5
EAS103	Modeling and Simulation of Fluid Power Systems using Easy5
EAS105	Modeling and Simulation of Gas Systems using Easy5
EAS106	Overview and Usage of the EASY5 Matrix Algebra Tool
EAS107	Modeling and Simulation of Multi-Phase Fluids using Easy5
EAS108	Working with libraries and custom components in Easy5
EAS109	Modeling and simulation of Electric system using Easy5
EAS110	Interfacing EASY5 with Other Software

### FlightLoads e-Learning Content

Course #	Course Name
FLD120	Aeroelasticity using FlightLoads and Patran

## Marc e-Learning Content

Course #	Class Name
MAR101	Basic Nonlinear Analysis using Marc and Mentat
MAR102	Advanced Nonlinear Analysis using Marc and Mentat
MAR103	Experimental Elastomer Analysis
MAR105	Thermal Protection Systems Analysis using Marc and Mentat
MAR108	What's New in Marc
MAR120	Basic Nonlinear Analysis using Marc and Patran
MAR121	Advanced Nonlinear Analysis using Marc and Patran

## MaterialCenter e-Learning Content

Course #	Course Name
MAT101	Introduction to MaterialCenter
MAT102	MaterialCenter for the Materials Engineer

## MSC Nastran e-Learning Content

Course #	Course Name
NAS101A	Linear Static and Normal Modes Analysis using MSC Nastran
NAS101B	Advanced Linear Analysis using MSC Nastran
NAS102A	Dynamic Analysis using MSC Nastran
NAS102B	Advanced Dynamic Analysis using MSC Nastran
NAS104	Thermal Analysis using MSC Nastran (SOLs 153 and 159)
NAS106A	Basic Substructure Analysis using MSC Nastran - Primary Superelements
NAS106B	Advanced Substructure Analysis using MSC Nastran - Secondary Superelements
NAS107	Design Sensitivity and Optimization using MSC Nastran
NAS108	What's New in MSC Nastran and Patran
NAS110	Working with Custom MSC Nastran Solution Sequences using DMAP
NAS111	Aeroelasticity using MSC Nastran
NAS113	Composite Material Analysis with MSC Nastran
NAS115	Fluid Structure Analysis using MSC Nastran
NAS120	Linear Static Analysis using MSC Nastran and Patran
NAS122	Basic Dynamic Analysis using MSC Nastran and Patran
NAS123	Implicit Nonlinear Analysis using MSC Nastran (SOL600)
NAS124	Thermal Analysis using MSC Nastran
NAS126	Explicit Nonlinear Analysis (SOL700) using MSC Nastran and Patran
NAS127	Rotordynamic Analysis using MSC Nastran
NAS133	Contact Analysis using Contact Pairs in MSC Nastran and Patran
NAS134	Advanced Contact Analysis using Contact Pairs in MSC Nastran and Patran
NAS318	Implementation of Fatigue Methods using MSC Nastran – Embedded Fatigue (NEF) with Patran
NAS400	Implicit Nonlinear Analysis using MSC Nastran and Patran

## Patran e-Learning Content

Course #	Course Name
PAT301	Introduction to Patran
PAT302	Advanced Geometry, Meshing, Customization, and Variable LBC's using Patran
PAT304	Automating Tasks and Basic GUI Customization Using the Patran Programming Command Language PCL
PAT318A	Basic Durability and Fatigue Life Analysis Using MSC Fatigue
PAT318B	Advanced Durability and Fatigue Life Analysis Using MSC Fatigue
PAT325	Composite Laminate Modeling using Patran

## SimDesigner e-Learning Content

Course #	Course Name
SMD102	Fundamentals of Multibody Dynamics Analysis with SimDesigner

## SimManager e-Learning Content

Course #	Course Name
SMM101	Introduction to SimManager
SMM102	SimManager Basic Configuration
SMM301	SimManager Advanced Configuration

## Sinda e-Learning Content

Course #	Course Name
SND501	Thermal analysis using Patran with Sinda

For more information, visit:

[www.mscsoftware.com/msc-academic-learning-center](http://www.mscsoftware.com/msc-academic-learning-center)