Fusion 360 Essentials

Training course outline

Autodesk Fusion 360 provides a single cloud-based platform that you can use to carry out all aspects of product development, from design and testing, through to simulation and fabrication.

Fusion 360 Essentials provides a thorough grounding for beginners. On completion, you will be able to use Fusion 360 to create and amend production-ready parts and assemblies.

Course summary

Fusion 360 Essentials teaches newcomers the key skills required for product development.

The topics covered include:

- Sketching
- 3D modelling
- Assemblies
- Visualisations, rendered images and animations
- Simulation
- Drawings
- Importing CAD data into Fusion 360.

The course also includes a high-level discussion of the possibilities of CAM and CNC.

Duration

Three days

Who should attend?

Newcomers to Fusion 360, and novice users.

Experience using a CAD application, such as AutoCAD, is beneficial but not essential. No 3D modelling knowledge is required.

In-class or live online

You can attend course in-person at any of our centres, or participate online from your place of work or home.

To read about our approach to online training, see: armada.co.uk/live-online-training.

Windows or Mac

Fusion 360 works almost identically running on a Windows computer or Mac, and our course is suitable for users of both platforms. (There are some minor differences, but nothing of significance.)

When you attend training in-class, you'll practice on a Windows computer. If you participate live online, you can run Fusion 360 on either a Windows computer or Mac.

Training is based on the current version of Fusion 360.

General information

Armada is an Autodesk authorised Training Centre (ATC), and our *Fusion 360 Essentials* course is accredited by Autodesk.

Fusion 360 courses are hosted by Autodesk Certified Trainers (ACTs) with a background in engineering.

Whilst attending training at our centres, delegates have the use of a computer running licensed Fusion 360 software on which to practice the techniques taught.

Course fees can be paid by card or bank transfer. We accept purchase orders from UK-registered companies and public sector organisations.

If you're self-funding your training, you can pay in staged payments, interest-free, over 12 months.

Course materials and certificate

Delegates receive:

- Comprehensive training guides.
- An e-certificate from Autodesk confirming successful completion of an accredited *Fusion 360 Essentials* course.

After course support

Following Fusion 360 training, you're entitled to 30 days' email support from your trainer.

Fusion 360 professional certification

Armada is an authorised Autodesk Certification Centre (ACC) offering Autodesk professional certification exams which lead to 'Autodesk-certified professional in Fusion 360' status.

Further information, prices & dates

See: armada.co.uk/course/fusion-360-training/

Course syllabus

See over.

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Course syllabus

Topics	Sub-topics
Introduction to Autodesk Fusion 360	Autodesk Fusion 360 fundamentals Feature-based modelling Parametric features Managing assembled designs Design documentation Getting Started Understanding workspaces Understanding projects The Autodesk Fusion 360 interface Ribbon, BROWSER, accessing commands Design navigation and display Design navigation ViewCube Named views Design display Geometry selection Environment and effects Managing your designs and project data Importing and exporting data Using A360 and Fusion 360 to manage data Version management
Create your first feature with quick shapes	Design units and origin Quick shape creation
Sketching	Introduction to sketching Starting a new sketch Creating sketch objects Turning sketches into 3D objects Sketch Entities Line, spline, points Rectangles Circle, arcs Dimensioning Dynamic input Sketch dimensions and constraints Extruding and revolving a sketch Additional entity types Polygons, Ellipse Slot Tangent arc using a line Tangent line between circles or arcs Fillets Construction entities Editing tools Trim, Extend, Mirror Center dimensions Radius or diameter dimensions Angular dimensions Over- constrained sketches

Topics	Sub-topics
Sketching *(continued)*	Additional dimension tools Sketched secondary features Using existing geometry to project new geometry
3D Modelling	The different modelling options available Solid modelling Direct modelling and history modelling Parametric modelling Changing aspects of your model that automatically update Part libraries and content Accessing standard parts Importing parts data into a design Feature duplication tools Mirroring geometry Patterning features Rectangular and circular patterns Pattern on path Pick and place features Fillets, chamfers, holes Editing pick and place features Construction features Construction planes, axes and points Equations and parameters Additional features Thread Press pull
Assemblies	Approach 1: Traditional distributed design Approach 2: Top-down (multi-body)
Visualisations, rendered images and animations	Materials and appearances Decals Environments Rendering Animations Exploding assemblies
Simulation	Example of real-world simulation
CAM and CNC	High-level discussion of possibilities
Drawings	Creating 2D drawings from a model Add dimensions, balloons and annotations Creating a Bill of Materials (BOM)
Importing CAD data	Importing other file types - documents, images, specifications

Birmingham/Bromsgrove: 01527 834783
Milton Keynes: 01908 597084
Armada Training Solutions Ltd.
Bristol: 0117 3637951
Reading: 0118 3042798
E: training@armada.co.uk
Sheffield: 0114 3492645
W: www.armada.co.uk

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