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KINGDOM  
UNIVERSITY



**KUATC**  
Kingdom University  
Authorized Training Center

**3** AUTODESK®  
**3DS MAX® 2022**



The authorized training center of Kingdom University offers a training program required for Autodesk certified professionals 3DS MAX for students, architects, and interior Designers

**Duration**    **40 hours**

## OVERVIEW

In this training course, trainees learn how to use 3D Studio Max to model, apply the material, add lights and cameras, render still images, and animate architectural or interior scenes. Scenes could be imported from AutoCAD as 3D or as 2D and fully modeled in Max. Although this course is titled for architects and interior designers, it provides the fundamental knowledge for anyone who wishes to use 3DS Max. The end of the course focuses on the architect and interior aspects of the software.

# OBJECTIVES

- Be professional users of Autodesk 3Ds Max.
- Apply 3Ds max to develop architectural, Interiors, and Graphics projects.
- Be ready to attempt exam of professional certification of 3Ds max.
- Be certified professional of 3Ds Max.

# OUTCOMES

- Use the Interface
- Use Selection and Transformation Tools
- Create and Modify Mesh Objects
- Create and Modify Poly Objects
- Import AutoCAD 2D Files and Model in Max
- Organize AutoCAD Files Using Layers and Plines
- Import Plines from AutoCAD Files to Create 3D Objects in Max
- Use Standard Lights
- Create a Night View Using Photometric Lights
- Create Daylight Systems
- Add and Modify Cameras
- Create a Basic Animation
- Create, Get, Modify, and Save Materials
- Import a 3D Hut from AutoCAD to Assign Materials, Add Backgrounds, and Render
- Model objects using a variety of techniques
- Design and apply materials
- Adjust basic lighting
- Animate simple objects
- Build and animate simple, effective environments.

# AUDIENCE

Students, Architects, interior designers, decorators, graphic designers, artists, animators, TV graphic designers, art directors, and anyone interested in creating 3D presentations. This course develops the professional skills for architectural modeling, rendering and animation. It also provides knowledge for higher-level courses such as V-Ray, Max Modeling, Max Animation, Lighting, Lumion, etc.

# TRAINERS

Autodesk Certified Instructors

# COURSE OUTLINE

**01 - THE INTERFACE**

**02 - SELECTION AND TRANSFORMATION TOOLS**

**03 - MIRRORING, ALIGNING, GROUPING, AND CLONING OBJECTS**

**04 - CREATING PRECISE BASIC ARCHITECTURAL OBJECTS**

**05 - CREATING SCENE**

**06 - INTRODUCTION TO LIGHTING, CAMERAS, AND ANIMATION**

**07 - INTRODUCTION TO MESH OBJECTS**

**08 - MODELING USING MESH OBJECTS**

**09 - POLY OBJECTS**

**10 - SHAPES**

**11 - USING SHAPES TO CREATE 3D OBJECTS**

**12 - IMPORTING 2D PLANS FROM AUTOCAD AND MODELING IN 3DS MAX**

**13 - IMPORTING AUTOCAD POLYLINES TO MODEL A HOUSE IN 3DS MAX**

**14 - INTRODUCTION TO ANIMATION**

**15 - STANDARD LIGHTS**

**16 - THE STANDARD LIGHTING SYSTEM**

**17 - THE DAYLIGHT SYSTEM**

**18 - NIGHT VIEW**

**19 - STANDARD MATERIAL**

**20 - UVW MAPS**

**21 - RENDERING A HUT IMPORTED FROM AUTOCAD**

**22 - RENDERING A LARGE HOUSE IMPORTED FROM AUTOCAD**

**23 - WALKTHROUGHS**

**24 - EXAM PREPARATION**



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AUTODESK®  
AUTOCAD®

# KUATC

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AUTODESK® AUTOCAD®  
ARCHITECTURE  
2022

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The authorized training center of Kingdom University offers a training program required for Autodesk certified professionals AutoCAD for students, architects, and interior Designers.

**Duration**

**40 hours**

## OVERVIEW

In this training course, trainees learn how to use AutoCAD to develop 2Ds and 3Ds drawings, apply the material, add lights and cameras, and render still images of architectural or interior scenes. Scenes could be imported from image files as 2D and fully created in AutoCAD. Although this course is titled for architects and interior designers, it provides the fundamental knowledge for anyone who wishes to use AutoCAD. This course covers the essential core topics for working with the AutoCAD software. The end of the course focuses on the architect and interior aspects of the software. The teaching strategy is to start with a few basic tools that enable the trainees to create and edit a simple drawing, and then continue to develop those tools. More advanced tools are introduced throughout the class.

# OBJECTIVES

- Be professional users of Autodesk AutoCAD.
- Apply AutoCAD to develop architectural and Interiors' drawings.
- Be ready for attempt exam of professional certification of Autodesk AutoCAD.
- Be certified professional of AutoCAD.

# OUTCOMES

- Understand the AutoCAD workspace and user interface.
- Using drawing, editing, and viewing tools.
- Organizing drawing objects on layers.
- Inserting reusable symbols (blocks).
- Preparing a layout to be plotted.
- Adding text, hatching, and dimensions.
- Use AutoCAD for daily working process.
- Navigate throughout AutoCAD using major navigating tools.
- Understand the concept and techniques to draw.
- Create multiple designs using several of tools.
- Create layers to control the objects' visibility.
- Explain drawing using annotations.
- Plot or print the drawing by scale.
- To use constraint for certain design.

# AUDIENCE

Students, Architects, interior designers, decorators, graphic designers, artists, animators, TV graphic designers, art directors, and anyone interested in creating 2Ds and 3Ds presentations. This course develops professional skills for architectural documentations and provides knowledge for higher-level courses such as Revit, 3Ds max and Maya.

# TRAINERS

Autodesk Certified Instructors

# COURSE OUTLINE

- 01** - GETTING STARTED WITH AUTOCAD INTERFACE
- 02** - BASIC DRAWING AND EDITING COMMANDS
- 03** - PROJECTS: CREATING A SIMPLE DRAWING
- 04** - DRAWING PRECISION IN AUTOCAD
- 05** - MAKING CHANGES IN YOUR DRAWING
- 06** - PROJECTS: MAKING YOUR DRAWINGS MORE PRECISE
- 07** - ORGANIZING YOUR DRAWING WITH LAYERS
- 08** - ADVANCED OBJECT TYPES
- 09** - ANALYZING MODEL AND OBJECT PROPERTIES
- 10** - PROJECTS: DRAWING ORGANIZATION AND INFORMATION

- 11** - ADVANCED EDITING COMMANDS
- 12** - CREATING AND IMPORTING BLOCKS
- 13** - ANNOTATIONS
- 14** - SETTING UP A LAYOUT
- 15** - HATCHING
- 16** - PRINTING DRAWING
- 17** - DIMENSIONS
- 18** - COMPLEX OBJECTS
- 19** - EXAM PREPARATION



**KUATC**  
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The authorized training center of Kingdom University offers a training program required for Autodesk certified professionals Revit for students, architects, and interior Designers.

**Duration** 40 hours

## OVERVIEW

Building Information Modeling (BIM) is an intelligent model-based process that provides insight for creating and managing building projects faster, more economically, and with less environmental impact. Revit is Autodesk's industry leading Building Information Modeling program that enables architects to efficiently create coordinated and consistent model-based designs.

This course takes the trainee on the first steps in learning journey, teaching them the fundamental skills they need to start designing buildings in Revit with accuracy and precision. Project success also depends on solid documentation and communication with project teams and you'll discover these best-practice workflows to use in Revit. Follow a series of structured lessons, with accompanying datasets, that give you hands-on experience using tools that are key to your professional development. Practice your new skills and test your knowledge with the exercises, challenge assignments, and a final test that accompany the course. Turn your skills into actionable results by learning the critical skills required for both modeling and documentation workflows.

# OBJECTIVES

- Be professional users of Autodesk Revit.
- Apply Revit to develop architectural and Interiors' drawings.
- Be ready for attempt exam of professional certification of Autodesk Revit.
- Be certified professional of AutoCAD.

# OUTCOMES

- Work with the Revit interface and understand the common workflow for design projects.
- Set up project standards.
- Create and edit walls and curtain walls.
- Place doors and windows.
- Model a variety of roofs, including gabled, hip, shed, and mansard.
- Create fascias and gutters.
- Create stairs and railings.
- Use structural layout and design to work with grids, place columns and beams, and work with beam systems.
- Present and document the design.
- Create perspectives, renderings, and walkthroughs.
- Create section and elevation drawings from the model.
- Create detail callouts and add extra detail items, annotation, and keynotes to create construction drawings.
- Develop drawing sheets for publication.
- Create schedules to document information from the model, including creating rooms and scheduling their areas, and exporting schedules for use in a spreadsheet.

# AUDIENCE

Students, Architects, interior designers, decorators, graphic designers, artists, animators, TV graphic designers, art directors, and anyone interested in creating modeling and managements. This course develops professional skills for architectural documentations and coordination.

# TRAINERS

Autodesk Certified Instructors

# COURSE OUTLINE

- 01 - GETTING STARTED**
- 02 - INTRODUCTION TO REVIT**
- 03 - SETTING UP USING PROJECT STANDARDS**
- 04 - MODELING WALLS**
- 5 - MODELING DOORS AND WINDOWS**
- 06 - MODELING ROOFS**
- 07 - MODELING STAIRS AND RAILINGS**
- 08 - MODELING COMPOUND WALLS**
- 09 - MODELING WITH STRUCTURAL COMPONENTS**
- 10 - RENDERING FOR VISUALIZATION**
- 11 - CREATING WALKTHROUGHS FOR VISUALIZATION**
- 12 - CREATING SECTIONS AND ELEVATIONS FOR BUILDING DOCUMENTATION**
- 13 - CREATING SCHEDULES FOR BUILDING DOCUMENTATION**
- 14 - EXAM PREPARATION**



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MAYA®

# KUATC

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**AUTODESK MAYA**

**2022**

The authorized training center of Kingdom University offers a training program required for Autodesk certified professionals Maya for students, architects, and interior Designers.

**Duration** 40 hours

## OVERVIEW

Trainees will learn how to create work through the fundamentals of animation and 3D with Maya. This course will get you started on modelling with more consistent and professional results. We will

NURBS, meshes and polygonal techniques to really help your production shine. We'll touch on sculpting, organic surfaces, reflectivity and tie it all together with movement and animation.

## OBJECTIVES

- Be professional users of Autodesk Maya.
- Apply Maya to develop architectural and Interiors molding and characters.
- Be ready for attempt exam of professional certification of Autodesk Maya.
- Be certified professional of Maya.

# OUTCOMES

- Understand an Overview of Maya
- Know Maya Scenes
- Working with Polygons
- Working with Meshes
- NURBS-based Modelling
- Cleaning up NURBS
- Using Materials
- Using Textures
- Rendering your Scene
- Animating in Maya

# AUDIENCE

Students, Architects, interior designers, decorators, graphic designers, artists, animators, TV graphic designers, art directors, and anyone interested in creating modeling and animation. This course develops professional skills for architectural documentations and carton movies.

# TRAINERS

Autodesk Certified Instructors

# COURSE OUTLINE

- 01 - UNDERSTANDING THE MAYA INTERFACE
- 02 - SETTING UP FILES AND MAYA PROJECTS
- 03 - CONFIGURING VIEWPORTS
- 04 - CUSTOMIZING THE INTERFACE
- 05 - NAVIGATING THE MAYA WORKSPACE
- 06 - USING THE HOTBOX AND MARKING MENUS
- 07 - SELECTING OBJECTS
- 08 - USING THE MOVE TOOL
- 09 - ROTATING AND SCALING OBJECTS
- 10 - WORKING WITH PIVOTS
- 11 - UNDERSTANDING THE CHANNEL BOX
- 12 - THE ATTRIBUTE EDITOR
- 13 - ORGANIZING MAYA SCENES
- 14 - WORKING WITH THE OUTLINER
- 15 - DEALING WITH HIERARCHIES
- 16 - OBJECT GROUPS
- 17 - EXPLORING HYPERGRAPH
- 18 - HIDING AND SHOWING OBJECTS
- 19 - WORKING WITH LAYERS
- 20 - WORKING WITH SELECTION MASKS
- 21 - CREATING POLYGONAL MODELS
- 22 - DIFFERENCES BETWEEN NURBS AND POLYS
- 23 - SELECTING POLYGONAL COMPONENTS
- 24 - USING SOFT SELECT AND REFLECTION
- 25 - SCULPTING WITH THE SCULPT TOOL
- 26 - THE COMBINE AND SEPARATE COMMANDS
- 27 - WORKING WITH SUBDIVISION SURFACES
- 28 - WORKING WITH EDGE LOOPS
- 29 - USING EDGE FLOW FOR SMOOTH GEOMETRY
- 30 - REORIENTING GEOMETRY USING SPIN EDGE
- 31 - DRAWING DETAIL WITH THE CONNECT TOOL
- 32 - MIRRORING GEOMETRY
- 33 - MODELING WITH NONLINEAR DEFORMERS
- 34 - MODELING WITH LATTICES
- 35 - AN INTRODUCTION TO NURBS MODELING AND EDITING
- 36 - USING NURBS PRIMITIVES
- 37 - THE NURBS CURVE TOOLS
- 38 - USING NURBS REVOLVE
- 39 - REFINING NURBS MODELS
- 40 - EXTRACTING NURBS CURVES FROM SURFACES
- 41 - OPEN/ CLOSE CURVES AND SURFACES
- 42 - CREATING CURVES ON A SURFACE
- 43 - PROJECTING CURVES ON SURFACES
- 44 - TRIMMING NURBS SURFACES
- 45 - USING FILLETS TO CONNECT SURFACES
- 46 - CONVERTING NURBS TO POLYGONS
- 47 - CREATING MATERIALS
- 48 - OVERVIEW OF MAYA RENDERERS
- 49 - THE BASICS OF MATERIALS
- 50 - CREATING AND APPLYING MAPS
- 51 - USING BITMAPS AS TEXTURE
- 52 - WORKING WITH THE HYPERSHADE WINDOW
- 53 - USING THE RAMP MATERIAL
- 54 - DISPLACEMENT AND BUMP MAPS
- 55 - MENTAL RAY MATERIALS
- 56 - APPLYING TEXTURES
- 57 - TEXTURE MAPPING
- 58 - PROJECTING TEXTURES ON SURFACES
- 59 - APPLYING MULTIPLE MATERIALS
- 60 - UV MAPPING
- 61 - THE UV TEXTURE EDITOR
- 62 - RENDER SETTINGS
- 63 - LIGHTS AND LIGHTING TYPES
- 64 - RENDERING SHADOWS
- 65 - CAMERA BASICS
- 66 - DEPTH OF FIELD
- 67 - MOTION BLUR
- 68 - REFLECTIONS AND REFRACTIONS
- 69 - MATCHING LIGHTS AND SHADOWS TO IMAGES
- 70 - BATCH RENDERING
- 71 - THE ANIMATION INTERFACE
- 72 - SET KEY
- 73 - THE GRAPH EDITOR
- 74 - THE DOPE SHEET
- 75 - ANIMATING OBJECTS ALONG SPLINE PATHS
- 76 - GHOSTING ANIMATION
- 77 - ANIMATION PLAYBACK USING PLAYBLAST
- 78 - CREATING ANIMATION CYCLES
- 79 - EXAM PREPARATION