COURSE OVERVIEW SE0007
Advanced AutoCAD

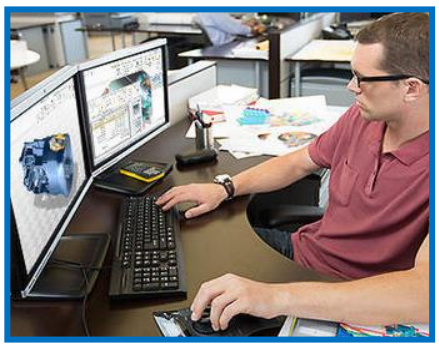
Course Title
Advanced AutoCAD

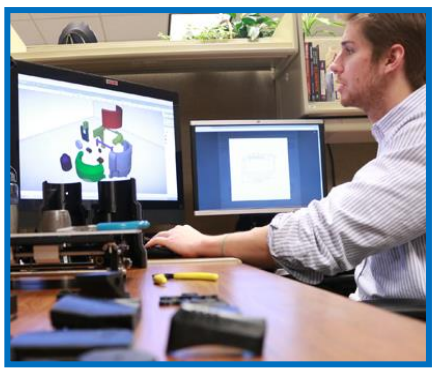
Course Date/Venue
September 14-18, 2025/Crowne Meeting Room, Crowne Plaza Al Khobar, an IHG Hotel, Al Khobar, KSA

Course Reference
SE0007

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description





This hands-on, highly-interactive course includes practical sessions and exercises. Theory learnt will be applied using the state-of-the-art simulator.

This course is designed to provide participants with a detailed and up-to-date overview of AutoCAD 2024. It covers the features and workspace of AutoCAD 2024 including interface, navigation and basic commands; the drawing limits, layouts and units and scales configuration; the line, polyline, circle, rectangle and polygon tools; the basic editing tools and erase command; managing layers and working with layer properties; modifying object properties using properties palette; the advanced drawing tools, blocks and dimensions; the advanced editing tools using trim extend, offset and array commands; the dynamic blocks, quick select and filter; the layouts and viewports, page setups and plotting; configuring plot styles and plotting drawings and publishing; and the 3D basics, 3D primitive, and 3D gizmos.

During this interactive course, participants will learn the 3D solid models, 3D surfaces and lights and shadows configuration; the complex solids and extract geometry as well as navigating 3D models and viewpoints; modelling with visual styles and section plane; configuring render settings and photorealistic renderings; and the animation paths, importing and attaching point clouds; and editing and visualizing point cloud data.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain a comprehensive knowledge on AutoCAD 2024
- Discuss the features and workspace of AutoCAD 2024 including interface, navigation and basic commands
- Set up drawing limits and layouts and configure units and scales
- Utilize the line, polyline, circle, rectangle and polygon tools and create basic geometric shapes
- Apply basic editing tools using move, copy, rotate, scale, and mirror commands as well as utilize the erase command
- Create and manage layers and work with layer properties as well as modify object properties using properties palette
- Apply advanced drawing tools using arcs, ellipses, and splines and explore points and polylines
- Create and modify blocks, insert blocks using DesignCenter, add text, multiline text, and text styles and edit text objects
- Create and manage dimensions, apply hatch and gradient fills and edit hatch patterns
- Apply advanced editing tools using trim extend, offset and array commands
- Attach and manage external references overlay and clipp Xrefs, create and edit attributes and generate and modify tables
- Create dynamic blocks with parameters and actions, edit and use dynamic blocks, use quick select and filter and create and use template
- Configure layouts and viewports, set-up page setups and plotting, configure plot styles and plot drawings and publishing
- Explore 3D basics, create 3D primitive, use 3D gizmos and editing commands and work with 3D modify tools
- Create 3D solid models, edit solids and solid faces, create and edit 3D mesh models and work with subdivision surfaces
- Create and modify 3D surfaces, work with surface networks, apply materials to 3D models and configure lights and shadows
- Create complex solids, combine and extract geometry, navigate 3D models and use view points
- Visualize models with visuals styles and section planes, configure render settings and create photorealistic renderings
- Generate animation paths, import and attach point clouds as well as edit and visualize point cloud data

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of AutoCAD 2024**,** architects and engineers, drafters and designers, students and educators, construction professionals, professionals in manufacturing, GIS (geographic information system) specialists and individuals interested in cad careers.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations:

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Steve Magalios, CEng, PGDip (on-going), MSc, BSc, is a **Senior Civil & Survey Engineer** with almost **40 years** of extensive **On-shore/Offshore** experience in the **Oil & Gas**, **Construction**, **Refinery** and **Petrochemical** industries. His expertise widely covers in the areas of **Land Survey and ArcGIS for Earthworks and Management**, **ArcGIS** for Surveying, Computer Aided Design (**CAD**), **AutoCAD Civil 3D**, **GIS & Mapping**, **Structural Analysis & Design** (**STAAD PRO**), **Land Surveying** & Property Evaluation, **Earth Measurements**, **Earthwork** & **Structural Maintenance**, System Safety Program Plan (**SSPP**) Inspection, **Building & Road** Design Skills, **Civil Engineering Design**, **Structural Reliability** Engineering, **Road** Construction & Maintenance, **Road** Pavement Design, **Road** Maintenance, **Drainage** System Operations & Maintenance, **Concrete Structures & Building Rehabilitation**, **Reinforced Concrete Structures Protection**, **Concrete** Structure Inspection & Repair, **Concrete** Inspection & Maintenance, **Concrete Maintenance & Reliability Analysis**, Design and Behaviour of **Steel Structures**, **Advanced Steel Design & Stability of Structures Concrete Structural Design**, **Dynamic Analysis of Rotating Equipment** Foundations & **Structural Steel Piperacks**, **Concrete** Technology, **Construction** Planning, **Construction & Concrete Works** Maintenance, **Seismic Design** for Buildings, Advanced **Building Construction Technology**, Advanced **Seismic & Wind Design of Reinforced Concrete**, **Geosynthetics & Ground Improvement Methods**, **Blueprint** Reading & Interpretation, **Blue Print** Documentation, Mechanical **Drawings**, **P&ID**, **Flow Diagram** Symbols, **Cartographic** Representation, Soil Classification, **Cadastral Surveying** & Boundary Definition, **Project Engineering** & Design, **Construction** Management, **Project Planning** & Execution, **Site Management**, **Site Supervision**, Effective **Resource Management**, **Project Evaluation**, **FEED** Management, **EPC Projects** Design, **Project Completion & Workover**, Quality Control and Team Management. He is also well-versed in **Pipeline** Operation & Maintenance, **Pipeline** Design & Construction, **Pipeline** Engineering, Scraper Traps, Burn Pits, Risk Assessment, HSE Plan & Procedures, **Construction** Planning, Methods & Management, **Sloping**, **Benching**, **Embankments**, **Construction** Planning, **Construction Quality** Management, **Project Risk** Assessment, **Project Quality** Plans, **Excavation**, **Backfill & Compaction**, **Excavation & Reinstatement**, **Excavation Safety** for Construction, **Groundworks Supervision**, **Construction Quality** Remote Sensing, Construction Materials, Construction Surveying, **Detailed Engineering** Drawings, Codes & Standards Quality Plan & Procedures, Safety & Compliance Management, Permit-to-Work Issuer, ASME, API, ANSI, ASTM, BS, NACE, ARAMCO & KOC Standards, MS Office tools, **AutoCAD**, **STAAD-PRO**, GIS, ArcInfo, ArcView, Autodesk Map and various programming languages such as FORTRAN, BASIC and AUTOLISP. Currently, he is the **Chartered Professional Surveyor Engineer & Urban-Regional Planner** wherein he is deeply involved in providing exact data, measurements and determining properly boundaries. He is also responsible in preparing and maintaining sketches, maps, reports and legal description of surveys.

During his career, Mr. Magalios has gained his expertise and thorough practical experience through challenging positions such as a **Project Site Construction Manager**, **Construction Site Manager**, **Project Manager**, **Deputy PMS Manager**, **Head of the Public Project Inspection Field Team**, **Technical Consultant**, **Senior Consultant**, **Consultant/Lecturer**, **Construction Team Leader**, **Lead Pipeline Engineer**, **Project Construction Lead Supervising Engineer**, **Civil Engineer**, **Lead Site Engineer**, **Senior Site Engineer Lead Engineer**, **Senior Site Engineer**, **R.O.W. Coordinator**, **Site Representative**, **Supervision Head** and **Contractor** for international Companies such as the Penspen International Limited, Eptista Servicios de Ingeneria S.I., J/V ILF Pantec TH. Papaioannou & Co. – Emenergy Engineering, J/V Karaylannis S.A. – Intracom Constructions S.A., Ergaz Ltd., Alkyonis 7, Palaeo Faliro, Piraeus, Elpet Valkaniki S.A., Asprofos S.A., J/V Depa S.A. just to name a few.

Mr. Magalios is a **Registered Chartered Engineer** and has a **Master's** and **Bachelor's** degrees in **Surveying Engineering** from the **University of New Brunswick**, **Canada** and the **National Technical University of Athens**, **Greece**, respectively. Further, he is currently enrolled for **Post-graduate** in **Quality Assurance** from the **Hellenic Open University**, **Greece**. He has further obtained a Level 4B Certificates in Project Management from the National & Kapodistrian University of Athens, Greece and Environmental Auditing from the Environmental Auditors Registration Association (EARA). Moreover, he is a **Certified Instructor/Trainer**, a **Chartered Engineer** of Technical Chamber of Greece and has delivered numerous trainings, workshops, seminars, courses and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Sunday, 14th of September 2025

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction to Autocad 2024*** *Overview of Autocad 2024 Features & Workspace • Understanding the Autocad Interface • Navigation & Basic Commands.*
0930 - 1030	***Setting Up a Drawing*** *Configuring Units & Scales • Setting up Drawing Limits & Layouts*
1030 - 1045	*Break*
1045 - 1130	***Basic Drawing Tools*** *Utilizing the Line, Polyline, Circle, Rectangle, & Polygon Tools • Creating Basic Geometric Shapes*
1130 - 1230	***Basic Editing Tools*** *Using Move, Copy, Rotate, Scale, & Mirror Commands • Utilizing the Erase Command*
1230 - 1245	*Break*
1245 - 1330	***Using Layers*** *Creating & Managing Layers • Working with Layer Properties*
1330 - 1425	***Object Properties*** *Understanding & Modifying Object Properties • Working with the Properties Palette*
1425 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2: Monday, 15th of September 2025

0730 – 0930	***Advanced Drawing Tools*** *Working with Arcs, Ellipses, & Splines • Exploring Points & Polylines*
0930 - 1030	***Block Creation*** *Creating & Modifying Blocks • Inserting Blocks & Using Designcenter*
1030 - 1045	***Break***
1045 - 1130	***Working with Text*** *Adding Text, Multiline Text, & Text Styles • Editing Text Objects*
1130 - 1230	***Dimensioning*** *Creating & Managing Dimensions • Understanding Dimension Styles & Overrides*
1230 - 1245	*Break*
1245 - 1330	***Hatching*** *Applying Hatch & Gradient Fills • Editing Hatch Patterns*
1330 - 1425	***Advanced Editing Tools*** *Utilizing Trim, Extend, Offset, & Array Commands • Working with Break & Join*
1425 - 1430	*Recap*
1430	*Lunch & End of Day Two*

Day 3: Tuesday, 16th of September 2025

0730 – 0930	***External References*** *Attaching & Managing External References • Overlaying & Clipping Xrefs*
0930 - 1030	***Attributes & Tables*** *Creating & Editing Attributes • Generating & Modifying Tables*
1030 - 1045	*Break*
1045 - 1130	***Dynamic Blocks*** *Creating Dynamic Blocks with Parameters & Actions • Editing & Using Dynamic Blocks*
1130 - 1230	***Efficiency Techniques*** *Using Quick Select & Filter • Creating & Using Templates*
1230 - 1245	***Break***
1245 - 1330	***Layouts & Viewports*** *Configuring Layouts & Viewports • Setting Up Page Setups & Plotting*
1330 - 1425	***Plotting & Publishing*** *Configuring Plot Styles • Plotting Drawings & Publishing*
1425 - 1430	*Recap*
1430	*Lunch & End of Day Three*

Day 4: Wednesday, 17th of September 2025

0730 – 0930	***Introduction to 3D Modeling*** *Exploring 3D Basics & Coordinate Systems • Creating 3D Primitives*
0930 - 1030	***3D Editing Tools*** *Using 3D Gizmos & Editing Commands • Working with 3D Modify Tools*
1030 - 1045	*Break*
1045 - 1130	***Solid Modeling*** *Creating 3D Solid Models • Editing Solids & Solid Faces*
1130 - 1230	***Mesh Modeling*** *Creating & Editing 3D Mesh Models • Working with Subdivision Surfaces*
1230 - 1245	*Break*
1245 - 1330	***Surface Modeling*** *Creating & Modifying 3D Surfaces • Working with Surface Networks*
1330 - 1425	***Materials And Lighting*** *Applying Materials to 3D Models • Configuring Lights & Shadows*
1425 - 1430	*Recap*
1430	*Lunch & End of Day Four*

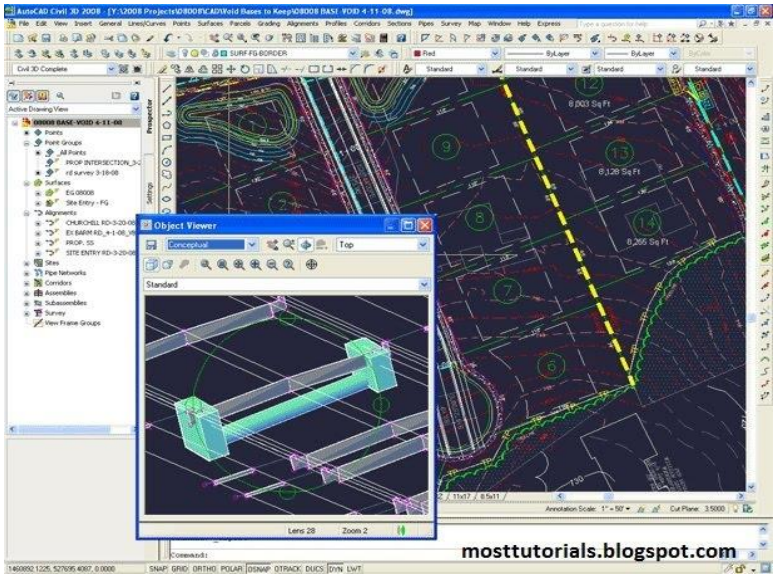
Day 5: Thursday, 18th of September 2025

0730 – 0930	***Advanced Solid Modeling*** *Creating Complex Solids & Surfaces • Combining & Extracting Geometry*
0930 - 1030	***3D Navigation & Visualization*** *Navigating 3D Models & Using Viewpoints • Visualizing Models with Visual Styles & Section Planes*
1030 - 1045	*Break*
1045 - 1130	***Rendering*** *Configuring Render Settings • Creating Photorealistic Renderings*
1130 - 1200	***Cameras & Animation*** *Creating Cameras & Walkthroughs • Generating Animation Paths*
1200 - 1215	*Break*

1215 - 1300	***Point Clouds*** *Importing & Attaching Point Clouds • Editing & Visualizing Point Cloud Data*
1300 - 1325	***Final Project & Review*** *Developing a Comprehensive Project Integrating Learned Skills • Reviewing Key Concepts & Answering Questions*
1325 - 1400	***Course Conclusion***
1400 - 1415	***POST - TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the state-of-the-art simulator "AutoCAD".



AutoCAD 2024

Course Coordinator

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