





COMPUTER HARDWARE (A+)

Training Program

Who can do?

- Managers, Students, & Fresh Graduates
- Using their own computers or Laptops
- Who want to be good and reputable jobs in the market and are like to enhance their skills in computer hardware & Networking.

100,000+ Students have been Trained

since 1997

Invest in
People the
only Asset
that Appreciates

Program is offered by



⊕ www.3dedudcators.com
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About the Program Designer & Instructor

The "Total Computer Hardware Solutions" Program has been designed by the Dr. M. S. Waqar where the program is also covers the international certification contents of A+.

They trainers are foreign qualified and having the degree & certification of Ph.D, MBA, MSc.

As Consultant & Senior Trainers the team of trainers from Engineering side we **3D Educators – Trainers & Consultants** would not compromise on the faculty.

Inauguration

The Training Program will be inaugurated by a senior member of 3DEducators.

Program Structure

No of classes per week
Duration of each class
Total Duration

02 Classes
02 – Hours
32-Hours

Other Learning Activities

Classroom Assignments **02**Presentations by Trainees **01**



Course Objectives:

This course provides practical knowledge (with theoretical lectures) to allow engineers to competently perform finite element analysis (FEA) for Structural and Thermal problems. Participants will be able to efficiently predict and evaluate structural and thermal response of various mechanical components by attending this course. Moreover, it will also bring clarity and insight to the students through customized training material (presentations & software workshops) and professional trainer.

- Identify the hardware components of personal computers and mobile digital devices.
- Identify the basic components and functions of operating systems.
- Identify networking and security fundamentals.
- Identify the operational procedures that should be followed by professional PC technicians.
- Install, configure, and troubleshoot display devices.
- Install and configure peripheral components.
- Manage system components.
- Manage data storage.
- Install and configure Microsoft Windows.
- Optimize and maintain Microsoft Windows.
- Work with other operating systems.
- Identify the hardware and software requirements for client environment configurations.
- Identify network technologies.
- Install and configure networking capabilities.
- Support mobile digital devices.
- Support printers and multifunction devices.
- Identify security threats, vulnerabilities, and controls.
- Implement security controls.
- Troubleshoot system-wide issues.



Course Outline:

Hardware Fundamentals

- Topic A: Personal Computer Components
- Topic B: Storage Devices
- Topic C: Mobile Digital Devices
- Topic D: Connection Interfaces

Managing System Components

- Topic A: Identify Motherboard Components and Features
- Topic B: Install and Configure CPUs and Cooling Systems
- Topic C: Install Power Supplies
- Topic D: Troubleshoot System Components

Managing Data Storage

- Topic A: Identify RAM Types and Features
- Topic B: Troubleshoot RAM Issues
- Topic C: Install and Configure Storage Devices
- Topic D: Configure the System Firmware
- Topic E: Troubleshoot Hard Drives and RAID Arrays

Supporting Display Devices

- Topic A: Install Display Devices
- Topic B: Configure Display Devices
- Topic C: Troubleshoot Video and Display Devices

Installing and Configuring Peripheral Components

- Topic A: Install and Configure Input Devices
- Topic B: Install and Configure Output Devices



- Topic C: Install and Configure Input/Output Devices
- Topic D: Install and Configure Expansion Cards

Customized Client Environments

- Topic A: Types of Common Business Clients
- Topic B: Custom Client Environments
- 7 Supporting Printers and Multifunction Devices
- Topic A: Printer and Multifunction Technologies
- Topic B: Install and Configure Printers
- Topic C: Maintain Printers
- Topic D: Troubleshoot Printers

Networking Technologies

- Topic A: TCP/IP Properties and Characteristics
- Topic B: TCP/IP
- Topic C: Internet Connections
- Topic D: Ports and Protocols
- Topic E: Networking Tools

Installing and Configuring Networking Capabilities

- Topic A: Configure Basic Windows Networking
- Topic B: Configure Network Perimeters
- Topic C: Using Windows Networking Features
- Topic D: Install and Configure SOHO Networks

Supporting Mobile Digital Devices

- Topic A: Install and Configure Exterior Laptop Components
- Topic B: Install and Configure Interior Laptop Components
- Topic C: Other Mobile Devices



- Topic D: Mobile Device Accessories and Ports
- Topic E: Mobile Device Connectivity
- Topic F: Mobile Device Synchronization
- Topic G: Troubleshoot Mobile Device Hardware

Operating System Fundamentals

- Topic A: PC and Mobile Operating Systems
- Topic B: PC Operating System Tools and Utilities

Installing and Configuring Microsoft Windows

- Topic A: Implement Client-Side Virtualization
- Topic B: Install Microsoft Windows
- Topic C: Use Microsoft Windows
- Topic D: Configure Microsoft Windows
- Topic E: Upgrade Microsoft Windows

Optimizing and Maintaining Microsoft Windows

- Topic A: Optimize Microsoft Windows
- Topic B: Back Up and Restore System Data
- Topic C: Perform Disk Maintenance
- Topic D: Update Software

Working With Other Operating Systems

- Topic A: The OS X Operating System
- Topic B: The Linux Operating System

Networking and Security Fundamentals

- Topic A: Network Types
- Topic B: Network Components



- Topic C: Common Network Services
- Topic D: Cloud Concepts
- Topic E: Security Fundamentals

Security Threats, Vulnerabilities, and Controls

- Topic A: Common Security Threats and Vulnerabilities
- Topic B: General Security Controls
- Topic C: Mobile Security Controls
- Topic D: Data Destruction and Disposal Methods

Implementing Security Controls

- Topic A: Secure Operating Systems
- Topic B: Secure Workstations
- Topic C: Secure SOHO Networks
- Topic D: Secure Mobile Devices

Troubleshooting System-Wide Issues

- Topic A: Troubleshoot PC Operating Systems
- Topic B: Troubleshoot Mobile Device Operating Systems and Applications
- Topic C: Troubleshoot Wired and Wireless Networks
- Topic D: Troubleshoot Common Security Issues

Safety and Operational Procedures

- Topic A: Basic Maintenance Tools and Techniques
- Topic B: Personal and Electrical Safety
- Topic C: Environmental Safety and Materials Handling
- Topic D: Professionalism and Communication
- Topic E: Organizational Policies and Procedures
- Topic F: Troubleshooting Theory



ONLINE LIVE CLASSES FACILITY AVAILABLE

- Instructor Led Training
- Real Time Presentations
- Interactive Classes
- Complete Notes and Other Stuff shall be provided through our Secure Student Login Member's Area
- For Online Live Classes, you may please download the Admission Form through our website http://www.3deducators.com. Fill it properly and attached the required document along with Picture and send back to info@3deducators.com with scanned fee submitted youcher in the bank.
- For Pakistan you may submit the fee at any MCB Branch with the title of "3D EDUCATORS-TRAINERS & CONSULTANTS".
- If you are outside Pakistan then you may transfer via Bank to Bank or any western union, Fast Track, Money Gram or else International Transfer Body.
- After Admission, if you don't have GMAIL Account then you are requested to kindly make one GMAIL Account and shared it info@3deducators.com. Then further correspondence shall be made by our institute official.
- Extra Bandwidth Charges shall be incurred.

DISTANCE NOT MATTER

You can join in the live classes Sessions of 3D EDUCATORS – TRAINERS & CONSULTANTS from anywhere of the world.



PRECAUTIONARY MEASURES

- During Classes, you are requested to make sure that you are in isolated room, where no noise should be there except your voice.
- Kindly Switch Off your Cell Phone during the class, because it will disturb the quorum of class.
- If you have taken the admission in the course online lonely, then ethically it is recommended and suggested that you alone in the class.
- Recording of Lectures are not allowed at your end.

This world is emerging and growing in the 21st Century very rapidly because of latest and remarkable technologies and its advancement. Due to advancement of technology, we 3D EDUCATORS offer Live Interactive class sessions

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