COURSE DESCRIPTION: This class covers a microcomputer operating system used by personal and/or workstation computer. With new computer systems being introduced, this class will introduce students to the most current “version” and to a specific operating system. The specific operating system name will be provided in the class schedule after “CPU O/S=Win 7” and may vary in credit hours. Preparation MCP for Exam 70-680

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

I. Introducing Windows 7
   A. List the new features in Windows 7.
   B. Name the various editions of Windows 7, their intended markets, and the differences between them.
   C. Understand the Windows 7 system requirements.
   D. Determine whether an existing computer is capable of running Windows 7.
   E. Explain the upgrade paths to Windows 7.
   F. Describe the modular architecture of Windows 7.
II. Installing Windows 7
   A. Distinguish between the various types of Windows 7 installations.
   B. Boot to the Windows PE environment.
   C. Perform a clean installation.
   D. Migrate user profiles.
   E. Use Windows Easy Transfer.
   F. Upgrade Windows 7 editions.
   G. Perform a dual boot installation

III. Deploying Windows 7
   A. Understand the Windows 7 mass deployment process.
   B. Install and use the deployment tools provided by Microsoft.
   C. Capture image files.
   D. Modify image files.
   E. Deploy image files.

IV. Working with Disks and Devices
   A. Select a disk partitioning style.
   B. Select a disk type.
   C. Create disk partitions and volumes.
   D. Select a file system.
   E. Work with disk tools.
   F. Understand the role of VHDs in Windows 7.
   G. Use Device Manager

V. Connecting to a Network
   A. Understand the structure of the OSI model and the services performed by each layer.
   B. Understand what happens when Windows 7 detects a network interface adapter in a computer.
   C. Use the Network and Sharing Center.
   D. Manage Network Connections.
   E. Use TCP/IP Tools.

VI. Sharing Resources
   A. Understand the Windows permission system.
   B. Manage NTFS permissions.
   C. Distinguish between the three types of sharing.
   D. Manage share permissions

VII. Working with Applications
   A. Configure Internet Explorer.
   B. Use IE8 security tools.
   C. Set compatibility modes.
   D. Use Windows XP mode.
   E. Use the Application Compatibility Toolkit.
   F. Use Applocker

VIII. Managing and Monitoring Windows 7 Performance
   A. Update Windows 7.
   B. Use Event Viewer.
   C. Use Performance Monitor.
   D. Manage Performance Settings.

IX. Working with Workgroups and Domains
   A. Work with local users and groups.
B. Understand user profiles.
C. Configure UAC.

X. Securing Windows 7
A. Understand the authentication mechanisms that Windows 7 can use.
B. Configure Windows Firewall.
C. Use Encrypting File System.

XI. Administering Windows 7
A. Troubleshoot Windows 7.
B. Use remote administration tools.
C. Troubleshoot the Windows startup process.
D. Use BranchCache.
E. Perform backups and restores.

XII. Using Mobile Computers
A. Configure wireless network adapters.
B. Use the Windows Mobility Center.
C. Use BitLocker
D. Use DirectAccess.

EXPECTED LEARNER OUTCOMES:

A. Upon completion of the course the student will have knowledge of installing Windows 7 operating system.
B. Upon completion of the course the student will have knowledge of working with disks, devices, connecting to a network, and sharing Windows 7 resources.
C. Upon completion of the course the student will have knowledge of working with applications, managing and monitoring Windows 7 performance.
D. Upon completion of the course the student will have knowledge of working with Workgroups and Domains.
E. Upon completion of the course the student will have knowledge of securing Windows 7, administering Windows 7, and using Windows 7 on a mobile computer.

COURSE COMPETENCIES:

Upon completion of the course the student will have knowledge of installing Windows 7 operating system.

1. The student will be able to describe the new features in Windows 7.
2. The student will be able to show the Windows 7 system requirements.
3. The student will be able to perform Windows 7 installation.
4. The student will be able to migrate to Windows 7.

Upon completion of the course the student will have knowledge of working with disks, devices, connecting to a network, and sharing Windows 7 resources.

5. The student will be able to select a disk partitioning style and disk type.
6. The student will be able to create disk partitions and volumes.
7. The student will be able to work with disk tools.
8. The student will be able to describe the structure of the OSI model and the services performed by each layer.
9. The student will be able to manage network connections and use TCP/IP Tools.
10. The student will be able to manage NTFS permissions.
11. The student will be able to distinguish between the types of sharing.
12. The student will be able to manage share permissions.

Upon completion of the course the student will have knowledge of working with applications, managing and monitoring Windows 7 performance.

13. The student will be able to configure Internet Explorer.
14. The student will be able to distinguish Windows update types.
15. The student will be able to use Event Viewer.
16. The student will be able to use Performance Monitor.

Upon completion of the course the student will have knowledge of working with Workgroups and Domains.

17. The student will be able to work with local users and groups.
18. The student will be able to manage user profiles.
19. The student will be able to manage group memberships.

Upon completion of the course the student will have knowledge of securing Windows 7, administering Windows 7, and using Windows 7 on a mobile computer

20. The student will be able to configure user password policies.
21. The student will be able to use security tools.
22. The student will be able to create a custom MMC console.
23. The student will be able to configure remote desktop access.
24. The student will be able to use troubleshooting tools.
25. The student will be able to create a custom backup job.
26. The student will be able to perform backups and restores.
27. The student will be able to show the wireless network technology.
28. The student will be able to use the Windows Mobility Center.
29. The student will be able to participate with others in an online environment.
30. The student will be able to demonstrate the ability to meet deadlines.

**ASSESSMENT OF LEARNER OUTCOMES:** Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

**SPECIAL NOTES:**
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

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