

# **IT260T**

## **Networking Application Services and Security**

### **[Onsite]**

**Course Description:**

This course explores common network-based services such as Web services, email and FTP in a given server operating systems environment. Related security issues will also be discussed.

**Prerequisite(s) and/or Corequisite(s):**

Prerequisites: IT222T Microsoft Network Operating System II

**Credit hours: 4**

**Contact hours: 60 (36 Theory Hours, 24 Lab Hours)**

# **Syllabus: Networking Application Services and Security**

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Instructor: \_\_\_\_\_

Office hours: \_\_\_\_\_

Class hours: \_\_\_\_\_

## **Major Instructional Areas**

1. Deployment of Microsoft Windows Server 2008
2. Internet Information Service (IIS) and Exchange Server
3. Security policies and tools
4. Deployment of Web applications
5. Client configuration for Microsoft Outlook and Microsoft Internet Explorer
6. Integration of ISS and Exchange Server in a Windows Server environment
7. Business continuity and disaster recovery

## **Course Objectives**

1. Manage the installation and deployment of Windows Server 2008.
2. Configure Internet Information Services (IIS) in a Windows Server 2008 environment.
3. Apply security settings to IIS to secure it against potential attacks.
4. Configure Web applications for the implementation of a Web server.
5. Configure network application services to provide multimedia content and workspace collaboration capabilities for users.
6. Analyze the role of Exchange Server 2007 as messaging and collaboration software.
7. Install Exchange Server 2007.
8. Configure Exchange Server roles and recipient objects.

9. Configure Public folders and e-mail protocols to enable users to share information and maintain connectivity.
10. Configure appropriate security settings to maintain the integrity of Exchange Server.

## SCANS Objectives

SCANS is an acronym for Secretary's Commission on Achieving Necessary Skills. The committee, created by the National Secretary of Labor in the early 1990s, created a list of skills and competencies that the committee feels are necessary for employees to function in a high-tech job market.

1. Acquire and evaluate information through critical thinking and problem solving.
2. Explain how the components and elements of a system process information.
3. Analyze the use of various technologies in securing a system.
4. Understand the importance of securing an information system.

## Course Outline

Note: All graded activities, except the quizzes and exams, are listed below in the pattern of <Unit Number>.<Assignment Number>. For example, Lab 2.1 refers to the 1<sup>st</sup> lab activity in Unit 2.

Unit	Activities
1–Deploying an Application Server	<ul style="list-style-type: none"> <li>• Content Covered:               <ul style="list-style-type: none"> <li><i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 1, “Deploying an Application Server”</li> </ul> </li> </ul> </li> <li>• Labs: 1.1</li> </ul>
2–Deploying IIS Services	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 5, “Deploying IIS Services”</li> </ul> </li> <li>• Labs: 2.1</li> <li>• Quizzes: 1</li> </ul>
3–Securing IIS Services	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 6, “Securing IIS Services”</li> </ul> </li> </ul>

Unit	Activities
	<ul style="list-style-type: none"> <li>• Labs: 3.1</li> <li>• Quizzes: 2</li> </ul>
4—Deploying Web Applications	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 7, “Deploying Web Applications”</li> </ul> </li> <li>• Labs: 4.1</li> <li>• Quizzes: 3</li> </ul>
5—Deploying Network Application Services	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 11, “Using Network Application Services”</li> </ul> </li> <li>• Labs: 5.1</li> <li>• Quizzes: 4</li> </ul>
6—Introducing Exchange Server 2007	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 1, “Exchange Server 2007 Basics”</li> <li>○ Lesson 2, “Working with Active Directory”</li> </ul> </li> <li>• Labs: 6.1</li> <li>• Exam 1</li> </ul>
7—Deploying Exchange Server	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 3, “Deploying Exchange Server 2007”</li> </ul> </li> <li>• Labs: 7.1</li> <li>• Quizzes: 5</li> </ul>
8—Configuring Exchange Server and Recipient Objects	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i> <ul style="list-style-type: none"> <li>○ Lesson 4, “Configuring a New Exchange Server”</li> <li>○ Lesson 5, “Working with Recipient Objects”</li> </ul> </li> </ul>

Unit	Activities
	<ul style="list-style-type: none"> <li>• Labs: 8.1</li> <li>• Quizzes: 6</li> </ul>
9–Working with E-Mail Protocols and Public Folders	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration</i>:               <ul style="list-style-type: none"> <li>○ Lesson 7, “Working with Public Folders”</li> <li>○ Lesson 8, “Configuring Email Protocols and Transport Rules”</li> </ul> </li> <li>• Labs: 9.1</li> <li>• Quizzes: 7</li> </ul>
10–Maintaining Security and Service Continuity	<ul style="list-style-type: none"> <li>• Read from <i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration</i>:               <ul style="list-style-type: none"> <li>○ Lesson 9, “Configuring Security”</li> <li>○ Lesson 10, “Backing Up, Restoring, and Repairing Exchange”</li> </ul> </li> <li>• Labs: 10.1</li> <li>• Quizzes: 8</li> </ul>
11–Course Review and Exam	<ul style="list-style-type: none"> <li>• Exam 2</li> </ul>

## Instructional Methods

This course builds on your prior knowledge, gained earlier in this program, of Windows Server 2008. The course is designed to help you understand specific applications such as e-mail and Web services.

The classroom session will include lectures with a demonstration of procedures and an illustration of the key concepts to be covered in a unit. Whenever possible, instructor will use real-world examples and scenarios for illustrating the objectives being taught. Lab assignments are designed to assess you on concepts and procedures covered in the lectures.

Quizzes will assess your understanding of concepts covered in previous units. These quizzes will help you review the concepts covered to determine what you know and what you might need to study further to prepare for your exams.

This course has two exams, which are scheduled in Unit 6 and Unit 11. The exams are designed to assess your cumulative knowledge of the key concepts covered in the previous units. Exam 1 will cover the content from Units 1 to 5, and Exam 2 will cover the content from Units 6 to 10.

Labs will provide you with hands-on experience to practice the implementation of network-based applications such as IIS and Exchange Server. The labs are designed using real-life scenarios in a nonthreatening environment to help build your confidence.

## Instructional Materials and References

### Student Textbook Package

- A custom textbook package that contains the following titles:
  - Craig T. Zacker. *Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration*. John Wiley and Sons, 2011.
  - Jason W. Eckert. *Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration*. Hoboken, NJ: John Wiley and Sons, 2011.
  
- A Lab Manual from the following titles:

- *Microsoft® Official Academic Course 70-643 Lab Manual: Windows Server® 2008 Applications Infrastructure Configuration. Hoboken, NJ: John Wiley and Sons, 2011.*
- *Microsoft® Official Academic Course 70-236 Lab Manual: Microsoft® Exchange Server® 2007 Configuration. Hoboken, NJ: John Wiley and Sons, 2011.*

### Other Required Resources

In addition to the student textbook package, the following is also required in this course:

- A removable hard drive (either internal removable master hard drive or external USB hard drive)
- Software:
  - Windows Server 2008 Standard Edition (either carried from previous courses or download from the MSDNAA site\*)
  - VMware Player (downloadable from <http://downloads.vmware.com>)
  - Microsoft Exchange Server 2007(download from MSDNAA site)
  - Microsoft Windows XP Professional with SP3 (download from MSDNAA site)
  - Device drivers—drivers for the lab computer model (obtain them from school SST)
  - Microsoft Office 2007 Professional Suite with Outlook (This should have been provided with the Microsoft Office suite for other courses early in the program)

### References

#### ITT Tech Virtual Library

Log on to the ITT Tech Virtual Library at <http://www.library.itt-tech.edu/> to access online books, journals, and other reference resources selected to support ITT Tech curricula.

#### Books

You may click “Books” or use the “Search” function on the home page to find the following books.



### Books24x7

- Johansson, Jesper M., and The Microsoft Security Team. *Windows Server 2008 Security Resource Kit*. Redmond, Washington: Microsoft Press, 2008.
- Johnson, Steven. *MCITP–Windows Server 2008 Enterprise Administrator Study Guide*. Indianapolis, Indiana: Wiley Publishing, 2009.
- Lockett, Richard, William Lefkovich, and Bharat Suneja. *Microsoft Exchange Server 2007–The Complete Reference*. New York: McGraw-Hill, 2008.
- Stanek, William. *Microsoft Exchange Server 2007 Administrator's Pocket Consultant*. 2<sup>nd</sup> ed. Redmond, Washington: Microsoft Press, 2008.

### School Of Study

You may click “School Of Study” or use the “Search” function on the home page to find the following resources.

#### School of Information Technology> Recommended Links

- Microsoft TechNet  
This Web site offers white papers, downloads, news, discussions, and frequently asked questions (FAQs) related to Microsoft products.  
<http://technet.microsoft.com/en-us/default.aspx> (accessed October 8, 2010).
- Microsoft Training & Certification  
This Web site provides innovative learning products that enable you to make the most of your investment in Microsoft technology. The products include classroom training, e-learning, certification, Microsoft Press books, skills assessments, and more to serve the needs of customers and partners worldwide.  
<http://www.microsoft.com/learning/en/us/default.aspx> (accessed October 8, 2010).

### Other References

The following resources may be found **outside** of the ITT Tech Virtual Library, whether online or in hard copy.

Books

- Gerber, Barry, and Jim Mcbee. *Mastering Microsoft Exchange Server 2007*. Indianapolis, Indiana: Wiley Publishing, 2007.
- Schaefer, Kenneth, Jeff Cochran, Scott Forsyth, Rob Baugh, Mike Everest, and Dennis Glendenning. *Professional IIS 7*. Indianapolis, Indiana: Wrox Press, 2008.
- Tiensivu, Aaron. *Securing Windows Server 2008: Prevent Attacks from Outside and Inside Your Organization*. Burlington, MA: Syngress Publishing, 2008.

All links to Web references outside of the ITT Tech Virtual Library are always subject to change without prior notice.

## Course Evaluation and Grading

### Evaluation Criteria Table

The final grades will be based on the following categories:

CATEGORY	WEIGHT
Labs	35%
Quizzes	25%
Exam 1	20%
Exam 2	20%
<b>Total</b>	<b>100%</b>

Note: Students are responsible for abiding by the Plagiarism Policy.

### Grade Conversion Table

The final grades will be calculated from the percentages earned in the course, as follows:

A	90-100%	4.0
B+	85-89%	3.5
B	80-84%	3.0
C+	75-79%	2.5
C	70-74%	2.0
D+	65-69%	1.5
D	60-64%	1.0
F	<60%	0.0

*(End of Syllabus)*

