

ITT Technical Institute
NT2670
Email and Web Services
Onsite Course

SYLLABUS

Credit hours: 4.5

Contact/Instructional hours: 56 (34 Theory Hours, 22 Lab Hours)

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

Prerequisites: NT1330 Client-Server Networking II or equivalent, NT1430 Linux Networking or equivalent

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 studied.

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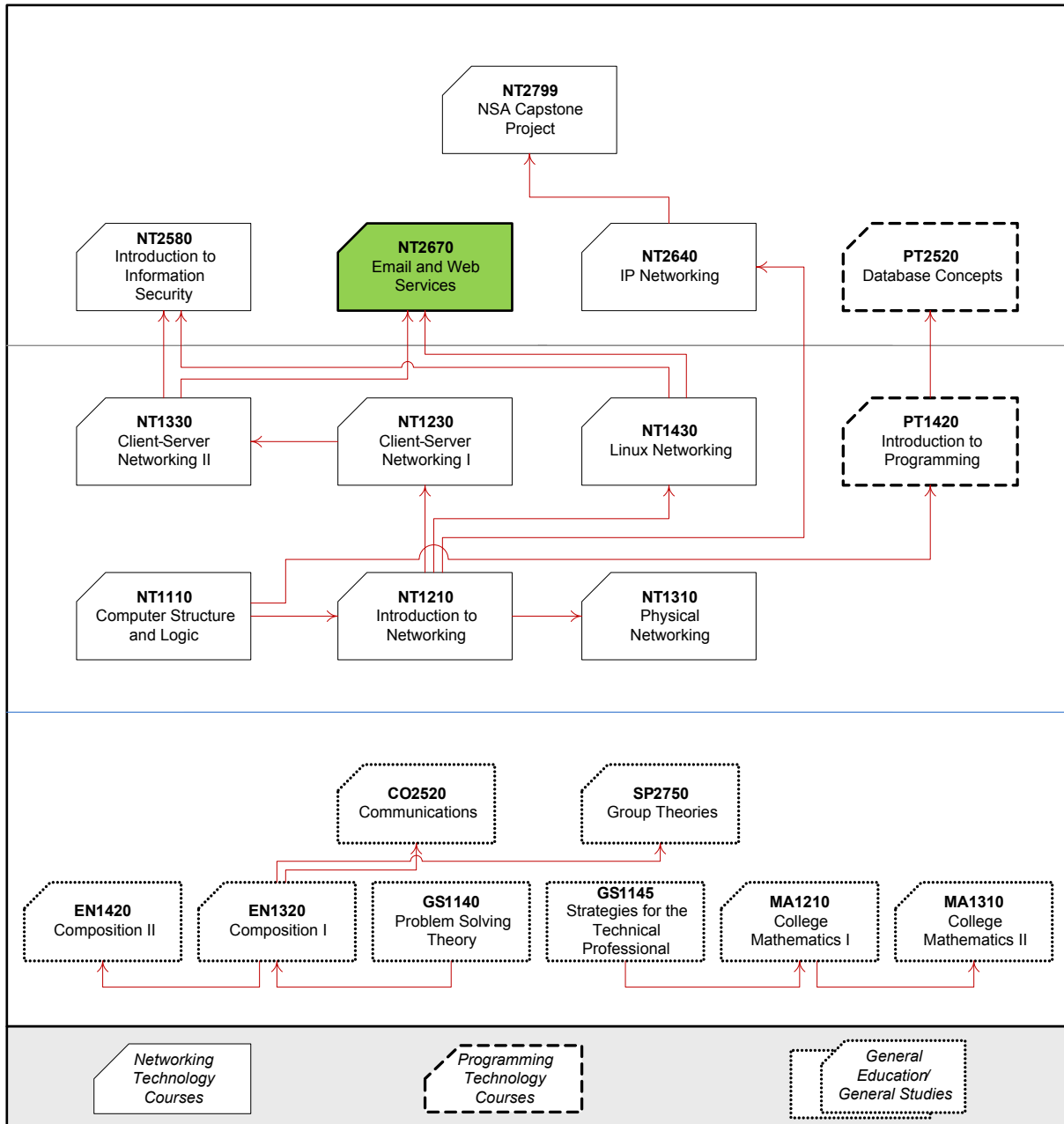
Course Description:

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 studied.

Where Does This Course Belong?

This course is required for the Associate degree in Network Systems Administration program.

The following diagram demonstrates how this course fits in the standard program:



NOTE: Refer to the catalog for the state-specific course and program information, if applicable.

Course Summary

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 IIS 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.

Learning Materials and References

Required Resources

Complete Textbook Package	New to this Course	Carried over from Previous Course(s)	Required for Subsequent Course(s)
Zacker, C. (2011). Custom excerpts from <i>Microsoft® official academic course 70-643: Windows server® 2008 applications infrastructure configuration</i> and Eckert, J. (2011). <i>Microsoft® official academic course 70-236: Microsoft® exchange server® 2007 configuration</i> . Hoboken, NJ: John Wiley and Sons, Inc.	■		
Zacker, C. (2011). <i>Customized excerpts from Microsoft® official academic course 70-643 lab manual: Windows server® 2008 applications infrastructure configuration</i> and Eckert, J. (2011). <i>Microsoft® official academic course 70-236 lab manual: Microsoft® exchange server® 2007 configuration</i> . Hoboken, NJ: John Wiley and Sons, Inc.	■		

Recommended Resources

Books, Professional Journals

- Bruzzese, J.P. (2008). *Exchange server 2007 how-to*. Upper Saddle River, NJ: Pearson Education.
- Lockett, R., Lefkovich, W., and Suneja B. (2007). *Microsoft exchange 2007: The complete reference*. McGraw-Hill.
- McBee, J. (2009). *Mastering microsoft exchange server 2007 SP1*. Hoboken, NJ: John Wiley and Sons, Inc.
- Stidley, J. (2009). *MCTS: Microsoft exchange server 2007 configuration study guide: Exam 236*. Hoboken, NJ: John Wiley and Sons, Inc.

ITT Tech Virtual Library (accessed via Student Portal | <https://studentportal.itt-tech.edu>)

- Books > Books 24/7 >
- Glenn, W., Lowe, S. and Maher, J. (2008). *Microsoft exchange server 2007 administrator's companion, second edition*. Microsoft Press.
- Mancuso, P., Miller, D. R., Sena, S. and GrandMasters. (2009). *Mciitp self-paced training kit (exam 70-237): designing messaging solutions with microsoft exchange server 2007*. Microsoft Press.

- Mclean, I., and Thomas, O. (2007). *MCTS self-paced training kit (Exam 70-236): Configuring microsoft exchange server 2007*. Microsoft Press.
- Stanek, W. *Microsoft exchange server 2007 administrator's pocket consultant*. Microsoft Press.

External

- Publisher's Student Companion Sites

Wiley offers Student Companion Sites for the course's required text content. Students can log on to: <http://bcs.wiley.com/he-bcs/Books?action=index&bcsId=5823&itemId=0470875046> and <http://bcs.wiley.com/he-bcs/Books?action=index&itemId=0470312270&bcsId=4808>

(Note: Do NOT use the lab manual worksheets from these sites. Your custom Lab Manual has different worksheets for this course)

NOTE: All links are subject to change without prior notice.

Information Search

Use the following keywords to search for additional online resources that may be used for supporting your work on the course assignments:

- Windows Server 2008 features
- Windows Server 2008 roles
- IIS7 Features
- FTP Sites
- Configuring Web Sites
- HTML tags
- IIS Security
- Port scanning Software
- Web server applications
- IIS application hosting
- Simple Mail Transfer Protocol (SMTP)
- SMTP Security
- Windows Media Services
- Windows SharePoint Services
- Securing Windows Media Services
- Exchange Server 2007 roles
- Active Directory
- Group Policy
- Installing Exchange Server 2007
- Exchange Server 2007 setup options
- Exchange Server 2007 prerequisites
- Exchange Server 2007 recipient objects
- Exchange Server 2007 connectors
- Mail-enabled groups

- Exchange Server 2007 public folders
- Exchange Server 2007 Client Access Protocols
- Exchange Server 2007 clients
- Exchange Server 2007 security
- Exchange Server 2007 blacklists

Suggested Learning Approach

In this course, you will be studying individually and within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.

Use the following advice to receive maximum learning benefits from your participation in this course:

DO	DON'T
<ul style="list-style-type: none">▪ Do take a proactive learning approach▪ Do share your thoughts on critical issues and potential problem solutions▪ Do plan your course work in advance▪ Do explore a variety of learning resources in addition to the textbook▪ Do offer relevant examples from your experience▪ Do make an effort to understand different points of view▪ Do connect concepts explored in this course to real-life professional situations and your own experiences	<ul style="list-style-type: none">▪ Don't assume there is only one correct answer to a question▪ Don't be afraid to share your perspective on the issues analyzed in the course▪ Don't be negative about the points of view that are different from yours▪ Don't underestimate the impact of collaboration on your learning▪ Don't limit your course experience to reading the textbook▪ Don't postpone your work on the course deliverables – work on small assignment components every day

Course Outline

Unit 1: DEPLOYING AN APPLICATION SERVER			
<p>Upon completion of this unit, the students are expected to:</p> <ul style="list-style-type: none"> Analyze the various roles of Windows Server 2008 that implement common server functions. Analyze the support services provided by Windows Server 2008 that enable administrators to deploy applications in different ways. Manage the installation and deployment of Windows Server 2008. Perform a secure installation of Windows Server 2008. Perform post-installation tasks, including the installation of roles with Server Manager. Create batch files to manage administrative tasks. Create a virtual image of Windows Server 2008. Create users. 			
READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> <ul style="list-style-type: none"> Lesson 1 	Assignment	Unit 1 Assignment 1: Installing Server Roles with a Batch File	3%
	Lab	Unit 1 Lab 1: Preparing a Virtual Server Image	2%
		Unit 1 Lab 2: Preparing an Application Server	2%
		Unit 1 Lab 3: Creating Users With a Batch File	2%

Unit 2: DEPLOYING IIS SERVICES			
<p>Upon completion of this unit, the students are expected to:</p> <ul style="list-style-type: none"> Configure Internet Information Services (IIS) in a Windows Server 2008 environment. Install the IIS application. Create an IIS Web site. Configure a File Transfer Protocol (FTP) Web site. Identify HTML tags. 			
READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i>	Assignment	Unit 2 Assignment 1: Identifying HTML Tags	3%
	Lab	Unit 2 Lab 1: Preparing a Second Application Server	2%
		Unit 2 Lab 2: Deploying a Web Server	2%
	Quiz	Unit 2 Quiz 1	2.5%

• Lesson 5		
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Unit 3: SECURING IIS SERVICES
 Upon completion of this unit, the students are expected to:

- Apply security settings to IIS to secure it against potential attacks.
- Analyze the process of creating and enforcing security policies to secure IIS.
- Configure Web site authentication and permissions.
- Configure Secure Socket Layer (SSL) security.
- Configure port scanning software to increase server security.
- Explain the purpose of port scanning.
- Choose port scanning software to increase server security.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration: • Lesson 6	Assignment	Unit 3 Assignment 1: Choosing Port Scanning Software	3%
	Lab	Unit 3 Lab 1: Configuring IIS7†	2%
	Quiz	Unit 3 Quiz 2	2.5%

Unit 4: DEPLOYING WEB APPLICATIONS
 Upon completion of this unit, the students are expected to:

- Describe Web applications as a major part of most Web server implementations.
- Analyze the application-hosting capabilities of ISS.
- Configure Universal Discovery, Description, and Integration (UDDI) services to publish listings about the activities and services of a Web site.
- Configure Simple Mail Transfer Protocol (SMTP) to handle e-mail messages.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration: • Lesson 7	Assignment	Unit 4 Assignment 1: SMTP Security Best Practices	3%
	Lab	Unit 4 Lab 1: Deploying an FTP Server	2%
	Quiz	Unit 4 Quiz 3	2.5%

Unit 5: DEPLOYING NETWORK APPLICATION SERVICES

Upon completion of this unit, the students are expected to:

- Configure network application services to provide multimedia content and workspace collaboration capabilities for users.
- Deploy multimedia content using Windows Media Services.
- Configure Windows SharePoint Services to enable users to employ browser-based workspaces to share information.
- Configure Windows Digital Rights Management to protect information resources.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-643: Windows Server® 2008 Applications Infrastructure Configuration:</i> • Lesson 11	Assignment	Unit 5 Assignment 1: Securing Windows Media Services	3%
	Lab	Unit 5 Lab 1: Using Network Application Services	2%
	Quiz	Unit 5 Quiz 4	2.5%

Unit 6: INTRODUCING EXCHANGE SERVER 2007

Upon completion of this unit, the students are expected to:

- Analyze the role of Exchange Server 2007 as messaging and collaboration software.
- Identify the purpose and use of Exchange Server 2007.
- Describe standard e-mail terminology.
- Configure Active Directory Web sites to provide access to user and computer information in a domain.
- Explain the need for maintaining an updated Active Directory domain for secure network applications.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i> • Lesson 1 • Lesson 2	Assignment	Unit 6 Assignment 1: Maintaining Web Services with a Dynamic External IP Address	3%
	Lab	Unit 6 Lab 1: DNS Resolution and Active Directory Objects	2%
		Unit 6 Lab 2: Configuring a Windows 7 Client Machine and Installing Microsoft Outlook	2%
	Exam	Unit 6 Midterm Exam	10%

Unit 7: DEPLOYING EXCHANGE SERVER

Upon completion of this unit, the students are expected to:

- Install Exchange Server 2007.
- Prepare the infrastructure and servers for the installation of Exchange Server.
- Use an appropriate setup program to install Exchange Server.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i> <ul style="list-style-type: none"> • Lesson 3 	Assignment	Unit 7 Assignment 1: Designing an Exchange Server†	3%
	Lab	Unit 7 Lab 1: Deploying Microsoft Exchange Server 2007 SP3†	2%
		Unit 7 Lab 2: Configuring Microsoft Exchange Server 2007 SP3†	2%
	Quiz	Unit 7 Quiz 5	2.5%

Unit 8: CONFIGURING EXCHANGE SERVER AND RECIPIENT OBJECTS

Upon completion of this unit, the students are expected to:

- Configure Exchange Server roles and recipient objects.
- Configure Exchange Server roles.
- Configure connectors and client connectivity.
- Configure recipients and mail-enabled groups for e-mail relay and access.
- Configure mailboxes.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i> <ul style="list-style-type: none"> • Lesson 4 • Lesson 5 	Lab	Unit 8 Lab 1: Configuring Recipient Objects	2%
		Unit 8 Lab 2: Using the Exchange Best Practices Analyzer	2%
	Quiz	Unit 8 Quiz 6	2.5%

Unit 9: WORKING WITH E-MAIL PROTOCOLS AND PUBLIC FOLDERS

Upon completion of this unit, the students are expected to:

- Configure Public folders and e-mail protocols to enable users to share information and maintain connectivity.
- Configure Public folders to provide a flexible means of storing and sharing different types of items that e-mail users work with.
- Analyze the role of Client Access protocols in an Exchange Server organization.
- Configure client connectivity using e-mail protocols to ensure access and relay of e-mail.

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i>	Lab	Unit 9 Lab 1: Configuring Public Folders	2%
		Unit 9 Lab 2: Configuring Protocols and Transport Rules	2%
	Quiz	Unit 9 Quiz 7	2.5%
<ul style="list-style-type: none"> • Lesson 7 • Lesson 8 			

Unit 10: MAINTAINING SECURITY AND SERVICE CONTINUITY

Upon completion of this unit, the students are expected to:

- Configure appropriate security settings to maintain the integrity of Exchange Server.
- Configure antivirus and antispam systems to maintain network security.
- Monitor Exchange 2007 system performance
- Monitor Email in Exchange Server 2007
- Create Exchange 2007 reports

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
<i>Microsoft® Official Academic Course 70-236: Microsoft® Exchange Server® 2007 Configuration:</i>	Lab	Unit 10 Lab 1: Configuring Security	2%
	Quiz	Unit 10 Quiz 8	2.5%
<ul style="list-style-type: none"> • Lesson 9 			

Unit 11: COURSE REVIEW AND FINAL EXAM

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Review All Chapters	Exam	Final Examination	15%

† Candidates for ePortfolio

Evaluation and Grading

Evaluation Criteria

The graded assignments will be evaluated using the following weighted categories:

Category	Weight
Assignment	21%
Lab	34%
Quiz	20%
Exam	25%
TOTAL	100%

Grade Conversion

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

Grade	Percentage	Credit
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

Academic Integrity

All students must comply with the policies that regulate all forms of academic dishonesty or academic misconduct, including plagiarism, self-plagiarism, fabrication, deception, cheating, and sabotage. For more information on the academic honesty policies, refer to the Student Handbook and the Course Catalog.

(End of Syllabus)