

IT Essentials - Chapter 1, Introduction to the Personal Computer

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 1.0 Introduction						
1.0.1 Welcome						
1.0.1.1 Introduction to the Personal Computer				IT-NET 2.1		
Section 1.1 Personal Computer Systems						
1.1.1 Cases and Power Supplies	K0109	HS-ETS1			901.1.8	Install a power supply based on given specifications
1.1.1.1 Cases	K0109	HS-ETS2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
1.1.1.2 Power Supplies	K0109	HS-ETS3	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
1.1.1.3 Power Supply Wattage	K0109	HS-PS2-4 HS-PS3-1 HS-PS3-5 HS-PS4-5	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O ITEA.16	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
1.1.1.4 Worksheet - Ohm's Law			ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1 CCR.ELA-Literacy. WHST.11-12.7		
1.1.2 Internal PC Components						PC Hardware
1.1.2.1 Motherboards	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O ITEA.16	IT-NET 2.1	901 1.2	Explain the importance of motherboard components, their purpose and properties
1.1.2.2 CPU Architectures	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.6	Install various types of CPUs and apply the appropriate cooling methods.
1.1.2.3 Enhancing CPU Operation	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.6	Install various types of CPUs and apply the appropriate cooling methods.
1.1.2.4 Cooling Systems		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.6	Install various types of CPUs and apply the appropriate cooling methods.

1.1.2.5 ROM	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.5	Install and configure storage devices and use appropriate media
1.1.2.6 RAM	K0114	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC
1.1.2.7 Memory Modules	K0114	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1		
1.1.2.8 Adapter Cards and Expansion Slots	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.4	Install and configure PC expansion cards.
1.1.2.9 Storage Devices	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.5	Install and configure storage devices and use appropriate media.
1.1.2.10 Storage Device Interfaces and RAID	K0109	HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.5	Install and configure storage devices and use appropriate media.
1.1.3 External Ports and Cables	K0192					Identify common PC connector types and associated cables
1.1.3.1 Video Ports and Cables		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.1	Identify common PC connector types and associated cables
1.1.3.2 Other Ports and Cables		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.1	Identify common PC connector types and associated cables
1.1.3.3 Adapter and Converters		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.1	Identify common PC connector types and associated cables
1.1.4 Input and Output Devices					901 1.12	Install and configure common peripheral devices
1.1.4.1 Input Devices		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.12	Install and configure common peripheral devices

1.1.4.2 Output Devices		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.12	Install and configure common peripheral devices
1.1.4.3 Monitor Characteristics		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.12	Install and configure common peripheral devices
Section 1.2 Select Computer Components						
1.2.1 Selecting PC Components						
1.2.1.1 Building a Computer		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.9.K ITEA.11 ITEA.12.O	IT-NET 2.1		
1.2.1.2 Select the Motherboard		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.2	Explain the importance of motherboard components, their purpose and properties
1.2.1.3 Select the Case and Fans		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.6	Install various types of CPUs and apply the appropriate cooling methods.
1.2.1.4 Select the Power Supply		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.8	Install a power supply based on given specifications.
1.2.1.5 Select the CPU and CPU Cooling System		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.6	Install various types of CPUs and apply the appropriate cooling methods.
1.2.1.6 Select RAM		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.3	Compare and contrast various RAM types and their features.

1.2.1.7 Select Adapter Cards	K0114	HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.4	Install and configure PC expansion cards.
1.2.1.8 Select Hard Drives	K0114	HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.4	Install and configure PC expansion cards.
1.2.1.9 Select a Media Reader	K0114	HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.5	Install and configure storage devices and use appropriate media
1.2.1.10 Select Optical Drives	K0114	HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.5	Install and configure storage devices and use appropriate media
1.2.1.11 Select External Storage	K0114	HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.5	Install and configure storage devices and use appropriate media
1.2.1.12 Select Input and Output Devices		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.12	Install and configure common peripheral devices.
1.2.1.13 Lab - Research Computer Components		HS_ETS1-2	ITEA.2 ITEA.4.I ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1 CCR.ELA-Literacy. WHST.11-12.7.		
Section 1.3 Configurations for Specialized Computer Systems		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1		
1.3.1 Specialized Computer Systems		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1		

1.3.1.1 Thick and Thin Clients		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
1.3.1.2 CAx Workstations		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
CCR.ELA-Literacy.RST.11-12.7.		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
1.3.1.4 Virtualization Workstations		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
1.3.1.5 Gaming PCs		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
1.3.1.6 Home Theater PCs		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
1.3.1.6 Lab - Build a Specialized Computer System		HS_ETS1-2	ITEA.2 ITEA.8 ITEA.11.Q ITEA.12.O	IT-NET 2.1 CCR.ELA-Literacy. RST.11-12.3		
Section 1.4 Chapter Summary						
1.4.1 Summary						
1.4.1.1 Introduction to the Personal Computer System						
Chapter 1: Terms and Concept Practice - Flash Cards						

IT Essentials - Chapter 2, Introduction to Lab Procedures and Tool Use

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 2.0 Introduction						
2.0.1 Welcome						
2.0.1.1 Introduction to Lab Procedures and Tool Use		HS-LS2-7 HS-ETS1-4	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1		
Section 2.1 Safe Lab Procedures						
2.1.1 Procedures to Protect People						
2.1.1.1 General Safety		HS-LS2-7 HS-ETS1-4	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1	902 5.3	Given a scenario, use appropriate safety procedures.
2.1.1.2 Electrical Safety		HS-PS3-5	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1	902 5.3	Given a scenario, use appropriate safety procedures.
2.1.1.3 Fire Safety		HS-PS3-4	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1	902 5.3	Given a scenario, use appropriate safety procedures.
2.1.2 Procedures to Protect Equipment and Data						
2.1.2.1 ESD and EMI		HS-PS2-5.	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures.
2.1.2.2 Power Fluctuation Types		HS-PS2-5.	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures.
2.1.2.3 Power Protection Devices		HS-PS2-5.	ITEA.2 ITEA.5 ITEA.6 ITEA.7	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures.
2.1.3 Procedures to Protect the Environment						
2.1.3.1 Safety Data Sheet		HS-LS2-7 HS-ETS1-4	ITEA.12 ITEA.13 ITEA.7	IT-NET 2.1	902 5.2	Given a scenario with potential environmental impacts, apply the appropriate controls.

2.1.3.2 Equipment Disposal	T0966	HS-LS2-7 HS-ETS1-4	ITEA.12 ITEA.13 ITEA.7	IT-NET 2.1	902 5.2	Given a scenario with potential environmental impacts, apply the appropriate controls.
Section 2.2 Proper Use of Tools						
2.2.1 Hardware Tools						
2.2.1.1 General Tool Use	S0058	HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.1.2 ESD Tools		HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.1.3 Hand Tools		HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.1.4 Cable Tools		HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.1.5 Cleaning Tools	T0435	HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.1.6 Diagnostic Tools	K0089/K0111	HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.2 Software Tools						
2.2.2.1 Disk Management Tools	T0068	HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.2.2 Protection Software Tools	K0301	HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
2.2.2.3 Lab - Diagnostic Software		HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1		
2.2.3 Organizational Tools						
2.2.3.1 Reference Tools	T0528	HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures
2.2.3.2 Miscellaneous Tools		HS-LS2-7 HS-ETS1-4	ITEA.1 ITEA.12	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures
2.2.4 Demonstrate Proper Tool Use					902 5.1	Given a scenario, use appropriate safety procedures

2.2.4.1 Antistatic Wrist Strap		HS-LS2-7 HS-ETS1-4	ITEA.1ITEA.12	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures
2.2.4.2 Antistatic Mat		HS-LS2-7 HS-ETS1-4	ITEA.1ITEA.12	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures
2.2.4.3 Hand Tools		HS-LS2-7 HS-ETS1-4	ITEA.1ITEA.12	IT-NET 2.1	902 5.1	Given a scenario, use appropriate safety procedures
2.2.4.4 Lab - Using a Multimeter and a Power Supply Tester		HS-LS2-7 HS-ETS1-4	ITEA.1ITEA.12	IT-NET 2.1 CCR.ELA-Literacy. WHST.11-12.3.		
2.2.4.5 Cleaning Materials		HS-LS2-7 HS-ETS1-4	ITEA.1ITEA.12	IT-NET 2.1		
2.2.4.6 Video - Computer Disassembly		HS-LS2-7 HS-ETS1-4	ITEA.1ITEA.12	IT-NET 2.1 CCR.ELA-Literacy. RST.11-12.7.		
2.2.4.7 Lab - Computer Disassembly				CCR.ELA-Literacy. WHST.11-12.3.		
Section 2.3 Summary						
2.3.1 Conclusion						
2.3.1.1 Lab Procedures and Tool Use				IT-NET 2.1		
Chapter 2: Terms and Concept Practice - Flash Cards				IT-NET 2.1 CCR.ELA-Literacy RST.11-12.4.		

IT Essentials - Chapter 3, Computer Assembly

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 3.0 Introduction						
3.0.1 Welcome						
3.0.1.1 Computer Assembly	K0109		ITEA.1	IT-NET 2.1	901.1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
Section 3.1 Assemble the Computer					901.1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
3.1.1 Open the Case and Connect the Power Supply					901.1.8	Install a power supply based on given specifications.
3.1.1.1 Open the Case	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.8	Install a power supply based on given specifications.
3.1.1.2 Install the Power Supply	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.8	Install a power supply based on given specifications.
3.1.1.3 Lab - Install the Power Supply		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
3.1.2 Install the Motherboard	K0109				901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.1.2.1 Install the CPU, Heat Sink and Fan Assembly	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.6	Install various types of CPUs and apply the appropriate cooling methods.
3.1.2.2 Activity - Installing the CPU		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.4.		
3.1.2.3 Install RAM	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.3	Compare and contrast various RAM types and their features.
3.1.2.4 Install the Motherboard	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.1.2.5 Activity - Installing the Motherboard		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.4.		

3.1.2.6 Lab - Install the Motherboard		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
3.1.3 Install the Drives	K0109					
3.1.3.1 Install the Internal Drive	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.5	Install and configure storage devices and use appropriate media.
3.1.3.2 Install the Optical Drive	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.5	Install and configure storage devices and use appropriate media.
3.1.3.3 Lab - Install the Drives		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
3.1.4 Install the Adapter Cards	K0109					
3.1.4.1 Types of Adapter Cards	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.4	Install and configure PC expansion cards
3.1.4.2 Install a Wireless NIC	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.4	Install and configure PC expansion cards
3.1.4.3 Install a Video Adapter Card	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.4	Install and configure PC expansion cards
3.1.4.4 Lab - Install Adapter Cards		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
3.1.5 Install the Cables	K0109					
3.1.5.1 Connect Power to the Motherboard	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
3.1.5.2 Connect Power to the Internal Drive and Case Fans	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
3.1.5.3 Activity - Identify the Power Connection		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		

3.1.5.4 Connect the Internal Data Cables	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
3.1.5.5 Lab - Install Internal Cables		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
3.1.5.6 Install the Front Panel Cables	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.8	Install a power supply based on given specifications
3.1.5.7 Activity - Identify the Front Panel Connectors		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.4.		
3.1.5.8 Lab - Install Front Panel Cables		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
3.1.5.9 Reassemble the Case Assembly	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
3.1.5.10 Install the External Cables	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.11	Identify common PC connector types and associated cables.
3.1.5.11 Activity - Identify the External Connectors		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.4.		
3.1.5.12 Lab - Complete the Computer Assembly		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA- Literacy.RST.11- 12.3.		
Section 3.2 Boot the Computer	T0125					
3.2.1 POST, BIOS and UEFI	T0125					
3.2.1.1 BIOS Beep Component Information	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.1.2 BIOS and CMOS	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.

3.2.1.3 BIOS Setup Program	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.1.4 UEFI Setup Program	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2 BIOS Configuration	T0125				901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.1 BIOS Component Information	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.2 BIOS Configurations	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.3 BIOS Security Configurations	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.4 BIOS Hardware Diagnostics and Monitoring	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.5 UEFI EZ Mode	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.6 UEFI Advanced Mode	T0125	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.7 Activity - Identify Terms		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.1	Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
3.2.2.8 Lab - Boot the Computer		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA-Literacy. RST.11-12.3.		
Section 3.3 Upgrade and Configure a Computer	K0109					
3.3.1 Motherboard and Related Components	K0109					

3.3.1.1 Motherboard Component Upgrades	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.3.1.2 Upgrade the Motherboard	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.3.1.3 Upgrade the BIOS	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.3.1.4 Upgrade CPU and Heat Sink and Fan Assembly	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.3.1.5 Upgrade the RAM	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.2	Explain the importance of motherboard components, their purpose and properties.
3.3.1.6 Lab - BIOS File Search		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1 CCR.ELA-Literacy. WHST.11-12.7.		
3.3.2 Storage Devices	K0109			IT-NET 2.1		
3.3.2.1 Upgrade Hard Drives	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.5	Install and configure storage devices and use appropriate media.
3.3.3 Peripheral Devices	K0109			IT-NET 2.1		
3.3.3.1 Upgrade Input and Output Devices	K0109	HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	IT-NET 2.1	901.1.12	Install and configure common peripheral devices.
3.3.3.2 Worksheet - Upgrade Hardware		HS-PS3-3 HS-ETS1-2	ITEA.8 ITEA.9 ITEA.11 ITEA.12	CCR.ELA-Literacy. WHST.11-12.7 CCR.ELA-Literacy. WHST.11-12.8		
Section 3.4 Chapter Summary						
3.4.1 Conclusion						
3.4.1.1 Computer Assembly	K0109				901.1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
Chapter 3: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4		

IT Essentials - Chapter 4, Overview of Preventive Maintenance

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 4.0 Overview of Preventive Maintenance						
4.0.1.1 Welcome						
4.0.1.1 Overview of Preventive Maintenance	K0103	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.8	902 - 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools
Section 4.1 Preventive Maintenance						
4.1.1 PC Preventive Maintenance Overview						
4.1.1.1 Benefits of Preventive Maintenance	K0103	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.8	902 - 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools
4.1.1.2 Preventive Maintenance Tasks	K0103	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.8	902 - 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools
4.1.1.3 Clean the Case and Internal Components	K0103	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.8	902 - 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools
4.1.1.4 Inspect Internal Components	K0103	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.8	902 - 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools
4.1.1.5 Environmental Concerns	K0103	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.8		
Section 4.2 Troubleshooting Process						
4.2.1 Troubleshooting Process Steps						
4.2.1.1 Introduction to Troubleshooting	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
4.2.1.2 Identify the Problem	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
4.2.1.3 Activity - Identify the Problem	Identify the Problem	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.4		
4.2.1.4 Establish a Theory of Probable Cause	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory

4.2.1.5 Test the Theory to Determine Cause	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
4.2.1.6 Establish a Plan of Action to Resolve the Problem and Implement the Solution	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
4.2.1.7 Verify Full System Functionality and, If Applicable, Implement Preventive Measures	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
4.2.1.8 Document Findings, Actions, and Outcomes	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
4.2.2 Common Problems and Solutions for PCs	T0237					
4.2.2.1 PC Common Problems and Solutions	T0237	HS-ETS1	ITEA.10 ITEA.11 ITEA.12	IT-NET 5.9	01/902 - All of 4	Software, Hardware, & Network Troubleshooting
Section 4.3 Chapter Summary						
4.3.1 Summary						
4.3.1.1 overview of Preventive Maintenance	K0103			IT-NET 5.8	902 - 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools
Chapter 4: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4		

IT Essentials - Chapter 5, Windows Installation

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 5.0 Introduction						
5.0.1 Welcome					902 1.0	Compare and contrast various features and requirements of Microsoft Operating Systems
5.0.1.1 Windows Installation		HS-ETS1. HS-PS4-2.		IT-NET 4.1	902 1.0	Compare and contrast various features and requirements of Microsoft Operating Systems
Section 5.1 Modern Operating Systems					902 1.0	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.1 Operating Systems Terms and Characteristics					902 1.0	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.1.1 Terms		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.0	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.1.2 Basic Functions of an Operating System		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.0	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.1.3 Processor Architecture		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 1.6	Install various types of CPUs and apply the appropriate cooling methods
5.1.2 Types of Operating Systems					901 1.6	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.2.1 Desktop Operating Systems		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 1.6	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.2.2 Network Operating Systems		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Compare and contrast various features and requirements of Microsoft Operating Systems
5.1.2.3 Lab - Search NOS Certifications and Jobs		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA- Literacy.RST.11- 12.3.		

5.1.3 Customer Requirements for an Operating System					902 1.2	Given a scenario, use appropriate Microsoft operating system features and tools.
5.1.3.1 OS Compatible Applications and Environments		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, use appropriate Microsoft operating system features and tools.
5.1.3.2 Minimum Hardware Requirements and Compatibility with the OS Platform		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.1.4 Operating System Upgrades					902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.1.4.1 Checking OS Compatibility		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.1.4.2 Windows OS Upgrades		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.1.4.3 Data Migration		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.1.4.4 Lab - Data Migration in Windows		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
Section 5.2 Operating System Installation						
5.2.1 Storage Device Setup Procedures					902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods.
5.2.1.1 Storage Device Types		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods.
5.2.1.2 Hard Drive Partitioning		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 4.2	Given a scenario, troubleshoot hard drives and RAID arrays with appropriate tools
5.2.1.3 Activity - Identify Disk Terminology		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.4.		
5.2.1.4 File Systems		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
5.2.1.5 Video - Disk Management		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
5.2.1.6 OS Installation with Default Settings		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.

5.2.1.7 Lab - Install Windows 8, Windows 7 or Vista		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3		
5.2.1.8 Account Creation		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
5.2.1.9 Finalize the Installation		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
5.2.1.10 Lab - Check for updates in Windows		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
5.2.2 Custom Installation Options						
5.2.2.1 Disk Cloning		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.2.2.2 Other Installation Methods		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.2.2.3 Network Installation		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.2.2.4 Restore, Refresh, and Recover		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.2.2.5 System Recovery Options		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods
5.2.2.6 Activity - Identify OS Installation Terminology		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.4.		
5.2.3 Boot Sequence and Registry Files				IT-NET 4.1		
5.2.3.1 Windows Boot Process		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
5.2.3.2 Activity - Identify the BIOS Boot Process Order		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.4.		
5.2.3.3 Startup Modes		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
5.2.3.4 Windows Registry		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.

5.2.4 Multiboot						
5.2.4.1 Multiboot Procedures		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods.
5.2.4.2 Disk Management Utility		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods.
5.2.4.3 Partitions		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods.
5.2.4.5 Video - Disk Partitioning		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.7.	902 1.2	Given a scenario, install Windows PC operating systems using appropriate methods.
5.2.4.4 Drive Mapping or Drive Letter Assignment		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1		
5.2.4.6 Video - Disk Mirroring		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.7.		
5.2.4.7 Lab - Create a Partition in Windows		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
5.2.5 Disk Directories						
5.2.5.1 Directory Structures		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 1.5	Install and configure storage devices and use appropriate media.
5.2.5.2 User and System File Locations		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 1.5	Install and configure storage devices and use appropriate media.
5.2.5.3 File Extensions and Attributes		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 1.5	Install and configure storage devices and use appropriate media.
5.2.5.4 Application, File, and Folder Properties		HS-ETS1. HS-PS4-2.	ITEA.12	IT-NET 4.1	901 1.5	Install and configure storage devices and use appropriate media.
Section 5.3 Summary						
5.3.1 Chapter Summary						
5.3.1.1 Chapter 5: Windows Installation				IT-NET 4.1		
Chapter 5: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4		

IT Essentials - Chapter 6, Windows Configuration and Management

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 6.0 Introduction						
6.0.1 Welcome						
6.0.1.1 Windows Configuration and Management				IT-NET 5.8		
Section 6.1 The Windows GUI and Control Panel				IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1 Windows Desktop, Tools, and Applications				IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.1 Windows Desktop		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.2 Desktop Properties		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.3 Start Menu		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.4 Task Manager		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.5 Lab - Task Manager		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.1.6 Computer and Windows Explorer		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.7 Windows Libraries		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.8 Install and Uninstall Applications		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.1.9 Lab - Install Third-Party Software		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.1	Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
6.1.2 Control Panel Utilities				IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.1 Introduction to Control Panel Utilities		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.2 User Accounts		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.3 Lab - Create User Accounts		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.4 Internet Options		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.5 Lab - Configure Browser Settings		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.5	Given a scenario, use Windows Control Panel utilities.

6.1.2.6 Display Settings		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.7 Folder Options		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.8 Action Center		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.9 Windows Firewall		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.10 Power Options		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.11 System Utility		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.12 Lab - Managing Virtual Memory		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.13 Device Manager, Devices and Printers, and Sound		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.14 Lab - Device Manager		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.15 Regions, Programs and Features, and Troubleshooting		HS-ETS1. HS-PS4-2.	ITEA.6.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.16 Lab - Region and Language Options		HS-ETS1. HS-PS4-2.		IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.2.17 HomeGroup and Network and Sharing Center		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.5	Given a scenario, use Windows Control Panel utilities.
6.1.3 Administrative Tools				IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.1 Computer Management		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.2 Event Viewer		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.3 Services		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.4 System configuration		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.5 Performance Monitor and Windows Memory Diagnostics		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.6 Programming Tools		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.3.7 Lab - Monitor and Manage System Resources		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.

6.1.4 Disk Defragmenter and Disk Error-Checking Tool				IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.4.1 Disk Defragmenter and Disk Error-Checking Tool		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.4.2 Lab - Hard Drive Maintenance in Windows 7		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.4.3 System Information		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.4.4 Lab - Managing System Files in Windows		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.5 Command-Line Tools				IT-NET 5.8	902 1.3	Given a scenario, apply appropriate Microsoft command line tools.
6.1.5.1 Windows CLI Commands		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.3	Given a scenario, apply appropriate Microsoft command line tools.
6.1.5.2 Video - Common Windows CLI Commands		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.7.	902 1.3	Given a scenario, apply appropriate Microsoft command line tools.
6.1.5.3 Video - Log User Access		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.7.	902 1.3	Given a scenario, apply appropriate Microsoft command line tools.
6.1.5.4 Lab - Common Windows CLI Commands		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.3	Given a scenario, apply appropriate Microsoft command line tools.
6.1.5.5 System Utilities		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
6.1.5.6 Lab - System Utilities		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
Section 6.2 Client-Side Virtualization				IT-NET 5.8	902 2.2	Given a scenario, set up and use client-side virtualization.
6.2.1 Purpose and Requirements of Virtualization				IT-NET 5.8	902 2.2	Given a scenario, set up and use client-side virtualization.
6.2.1.1 Purpose of Virtual Machines		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.6. ITEA.12.	IT-NET 5.8	902 2.2	Given a scenario, set up and use client-side virtualization.
6.2.1.2 Hypervisor: Virtual Machine Manager		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.6. ITEA.12.	IT-NET 5.8	902 2.2	Given a scenario, set up and use client-side virtualization.
6.2.1.3 Virtual Machine Requirements		HS-ETS1. HS-PS4-2.	ITEA.2. ITEA.6. ITEA.12.	IT-NET 5.8	902 2.2	Given a scenario, set up and use client-side virtualization.
Section 6.3 Common Preventive Maintenance Techniques for Operating Systems				IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1 OS Preventive Maintenance Plan		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.

6.3.1.1 Preventive Maintenance Plan Contents		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.2 Lab - Managing the Startup Folder		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.3 Updates		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.4 Scheduling Tasks		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.5 Lab - Task Scheduler		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8 CCR.ELA- Literacy.RST.11-12.3.	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.6 Restore Points		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.7 Lab - System Restore		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8 CCR.ELA- Literacy.RST.11-12.3.	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.8 Hard Drive Backup		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.9 Video - Backup Tool		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8 CCR.ELA- Literacy.RST.11-12.7.	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
6.3.1.10 Video - Restore Points		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.8 CCR.ELA- Literacy.RST.11-12.7.	902 1.7	Perform common preventive maintenance procedures using the appropriate Windows OS tools.
Section 6.4 Basic Troubleshooting Process for Operating Systems					902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1 Applying the Troubleshooting Process to Operating Systems					902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1.1 Identify the Problem		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1.2 Establish a Theory of Probable Cause		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1.3 Test the Theory to Determine Cause		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1.4 Establish a Plan of Action to Resolve the Problem and Implement the Solution		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1.5 Verify Full System Functionality and Implement Preventive Measures		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.1.6 Document Findings, Actions, and Outcomes		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.2 Common Problems and Solutions for Operating Systems				IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.
6.4.2.1 Common Problems and Solutions		HS-ETS1. HS-PS4-2.	ITEA.10. ITEA.12.	IT-NET 5.9	902 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools.

Section 6.4 Chapter Summary				IT-NET 5.9		
6.5.1 Chapter Summary				IT-NET 5.9		
6.7.1.1 Chapter 6: Microsoft Windows Operating System				IT-NET 5.9		
Chapter 6: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4		

IT Essentials - Chapter 7, Networking Concepts

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 7.0 Introduction						
7.0.1 Welcome						
7.0.1.1 Networking Concepts				IT-NET 3		
Section 7.1 Principles of Networking						
7.1.1 Computer Networks						
7.1.1.1 Network Definition	K0470	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features
7.1.1.2 Host Devices	K0109	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
7.1.1.3 Intermediary Devices	K0011	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features.
7.1.1.4 Network Media	K0011	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.2	Compare and contrast the characteristics of connectors and cabling.
7.1.1.5 Activity - Advantages and Disadvantages of Networking		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4		
7.1.1.6 Bandwidth and Latency	K0050	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.7	Compare and contrast various PC connection interfaces, their characteristics and purpose.
7.1.1.7 Data Transmission	K0622	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings
7.1.2 Types of Networks				IT-NET 3		
7.1.2.1 LANs	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.2 WLANs	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.3 PANs	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.4 MANs	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.5 WANs	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.6 Peer-to-Peer Networks	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.7 Client/Server Networks	K0113	HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12..	901 2.7	Compare and contrast Internet connection types, network types and their features.
7.1.2.8 Activity - Matching Network Types		HS-ETS1-2.	ITEA.2.	CCR.ELA-Literacy. RST.11-12.7		
Section 7.2 Networking Standards						
7.2.1 Reference Models						

7.2.1.1 Open Standards	K0054	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.5	Compare and contrast various WiFi networking standards and encryption types.
7.2.1.2 Protocols	K0001	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.4	Explain common TCP and UDP ports, protocols and their purpose.
7.2.1.3 OSI Reference Model	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 4.0 Hardware and Network Troubleshooting	Given a scenario, troubleshoot a problem accordingly
7.2.1.4 TCP/IP Model	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 4.0 Hardware and Network Troubleshooting	Given a scenario, troubleshoot a problem accordingly
7.2.1.5 Protocol Data Units	K0452	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 4.0 Hardware and Network Troubleshooting	Given a scenario, troubleshoot a problem accordingly
7.2.1.6 Encapsulation Example	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 4.0 Hardware and Network Troubleshooting	Given a scenario, troubleshoot a problem accordingly
7.2.1.7 De-Encapsulation Example	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 4.0 Hardware and Network Troubleshooting	Given a scenario, troubleshoot a problem accordingly
7.2.1.8 Comparing the OSI and TCP/IP Models	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 4.0 Hardware and Network Troubleshooting	Given a scenario, troubleshoot a problem accordingly
7.2.1.9 Activity - Place the OSI and TCP/IP Model Layers		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4		
7.2.2 Wired and Wireless Ethernet Standards						
7.2.2.1 CSMA/CD	K0011	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
7.2.2.2 Ethernet Cable Standards	K0417	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.2	Compare and contrast the characteristics of connectors and cabling.
7.2.2.3 CSMA/CA	K0442	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
7.2.2.4 Wireless Standards	K0614	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
7.2.2.5 Wireless Security	K0375	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.5	Compare and contrast various WiFi networking standards and encryption types.
Section 7.3 Physical Components of a Network						
7.3.1 Network Devices						

7.3.1.1 Modems	K0057	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features.
7.3.1.2 Hubs, Bridges, and Switches	K0011	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features.
7.3.1.3 Wireless Access Points and Routers	K0011	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features.
7.3.1.4 Hardware Firewalls	K0516	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features.
7.3.1.5 Other Devices	K0556	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features.
7.3.1.6 Activity - Identify Network Devices		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4		
7.3.2 Cables and Connectors						
7.3.2.1 Coaxial Cables	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 1.11	Identify common PC connector types and associated cables.
7.3.2.2 Twisted-Pair Cables	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.1	Identify the various types of network cables and connectors.
7.3.2.3 Twisted-Pair Category Ratings	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.1	Identify the various types of network cables and connectors.
7.3.2.4 Twisted-Pair Wire Schemes	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.1	Identify the various types of network cables and connectors.
7.3.2.5 Activity - Cable Pinouts		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4		
7.3.2.6 Lab - Building Build and Test Network Cables		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3		
7.3.2.7 Activity - Cabling a Simple Network		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4		
7.3.2.8 Fiber-Optic Cables	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.1	Identify the various types of network cables and connectors
7.3.2.9 Types of Fiber Media	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.1	Identify the various types of network cables and connectors
7.3.2.10 Fiber-Optic Connectors	K0108	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.1	Identify the various types of network cables and connectors
Section 7.4 Basic Networking Concepts and Technologies						
7.4.1 Network Equipment Addressing						
7.4.1.1 Network Addressing	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.2 IP Addresses	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.3 IPv4 Address Format	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.4 Classful and Classless IPv4 Addressing	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.5 Number of IPv6 Addresses	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.6 IPv6 Address Format	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.7 Video - IPv4 vs. IPv6		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.7		
7.4.1.8 Static Addressing	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.

7.4.1.9 Dynamic Addressing	K0471	HS-ETS1-2.	ITEA.2.		901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.10 ICMP	K0471	HS-ETS1-2.	ITEA.2.		901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.1.11 Lab - Configure a NIC to Use DHCP in Windows		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3		
7.4.1.12 Packet Tracer - Adding Computers to an Existing Network		HS-ETS1-2.	ITEA.2.	CCR.ELA-Literacy. RST.11-12.9		
7.4.2 Transport Layer Protocols						
7.4.2.1 Role of the Transport Layer	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.2.2 Transport Layer Features	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.2.3 Transport Layer Protocol	K0061	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.2.4 TCP	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.2.5 UDP	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
7.4.2.6 Port Numbers	K0471	HS-ETS1-2.	ITEA.2.	IT-NET 3	901 2.4	Explain common TCP and UDP ports, protocols and their purpose.
7.4.2.7 Activity - TCP vs. UDP		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4.		
7.4.2.8 Activity - Protocol Definitions and Default Ports		HS-ETS1-2.	ITEA.2.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.4.		
Section 7.5 Chapter Summary						
7.5.1 Conclusion						
7.5.1.1 Networking Concepts	K0205			IT-NET 3	901 2.0	Networking
Chapter 7: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 8 Applied Networking

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 8.0 Introduction						
8.0.1 Welcome						
8.0.1.1 Applied Networking		HS-ETS1-2.	ITEA.9.	IT-NET 3		
Section 8.1 Computer to Network Connection						
8.1.1 Networking Cards						
8.1.1.1 Network Installation Completion List	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 2.8	Compare and contrast network architecture devices, their functions and features
8.1.1.2 Selecting a NIC	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
8.1.1.3 Installing and Updating a NIC	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.4	Install and configure PC expansion cards.
8.1.1.4 Configuring a NIC	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.4	Install and configure PC expansion cards.
8.1.1.5 Advanced NIC Settings	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.1.2 Wireless and Wired Router Configurations	T0035				901 2.8	Compare and contrast network architecture devices, their functions and features.
8.1.2.1 Connecting the NIC	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.9	Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
8.1.2.2 Connecting the Router to the Internet	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
8.1.2.3 Setting the Network Location	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
8.1.2.4 Logging In to the Router	T0035	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings
8.1.2.5 Basic Network Setup	K0205	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
8.1.2.6 Basic Wireless Settings	T0609	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
8.1.2.7 Testing Connectivity with the Windows GUI	K0318	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.1.2.8 Testing Connectivity with the Windows CLI	K0318	HS-ETS1-2.	ITEA.9.	IT-NET 3	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.1.2.9 Video - Network CLI Commands		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.7.	901 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.1.2.10 Lab - Connect to a Router for the First Time		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3.	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.

8.1.2.11 Activity - Connect to Wireless Router and Configure Basic Settings		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.9.	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
8.1.2.12 Lab - Configure Wireless Router in Windows		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3.	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
8.1.2.13 Activity - Connect Wireless Computers to a Wireless Router		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.9.	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
8.1.2.14 Lab - Test the Wireless NIC in Windows		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3.	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
8.1.2.15 Activity - Test a Wireless Connection		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.9.	901 2.6	Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
8.1.3 Network Sharing					902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.1 Domain and Workgroup		HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.2 Connecting to a Workgroup or a Domain		HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.3 Windows 7 Homegroup		HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.4 Sharing Resources in Windows Vista	S0012	HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.5 Network Shares and Mapping Drives	S0012	HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.6 Administrative Shares	S0012	HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.7 Network Drive Mapping	S0012	HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop
8.1.3.8 Video - Share a Folder		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.7.	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop.
8.1.3.9 Lab - Share Resources in Windows		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3.	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop.
8.1.4 Remote Connections					902 1.6	Given a scenario, install and configure Windows networking on a client/desktop.
8.1.4.1 VPN		HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop.
8.1.4.2 Remote Desktop and Remote Assistance		HS-ETS1-2.	ITEA.9.	IT-NET 3	902 1.6	Given a scenario, install and configure Windows networking on a client/desktop.

8.1.4.3 Lab - Remote Assistance in Windows		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3.		
8.1.4.4 Lab - Remote Desktop in Windows		HS-ETS1-2.	ITEA.9.	IT-NET 3 CCR.ELA-Literacy. RST.11-12.3.		
Section 8.2 ISP Connection Technologies	K0274				902 1.6	Compare and contrast network architecture devices, their functions and features
8.2.1 Broadband Technologies	K0274				901 2.7	Compare and contrast Internet connection types, network types and their features.
8.2.1.1 Brief History of Connection Technologies	K0274	HS-ETS1-2.	ITEA.7.	IT-NET 3		
8.2.1.2 DSL and ADSL		HS-ETS1-2.	ITEA.7.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
8.2.1.3 Line of Sight Wireless Internet Service	K0274	HS-ETS1-2.	ITEA.7.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
8.2.1.4 WiMAX		HS-ETS1-2.	ITEA.7.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
8.2.1.5 Other Broadband Technologies	K0274	HS-ETS1-2.	ITEA.7.	IT-NET 3	901 2.7	Compare and contrast Internet connection types, network types and their features.
8.2.1.6 Selecting an ISP for the Customer	K0471	HS-ETS1-2.	ITEA.7.	IT-NET 3		
8.2.1.7 Activity - Identify ISP Connection Types		HS-ETS1-2.	ITEA.7.	CCR.ELA-Literacy. RST.11-12.7.		
Section 8.3 Internet Technologies						
8.3.1 Data Centers and Cloud Computing						
8.3.1.1 Data Center	T0251	HS-ETS1-2.		IT-NET 3		
8.3.1.2 Cloud Computing versus Data Center	K0283	HS-ETS1-2.		IT-NET 3	902 2.3	Identify basic cloud concepts.
8.3.1.3 Characteristics of Cloud Computing	K0230	HS-ETS1-2.		IT-NET 3	902 2.3	Identify basic cloud concepts.
8.3.1.4 SaaS, IaaS and PaaS	S0365	HS-ETS1-2.		IT-NET 3	902 2.3	Identify basic cloud concepts.
8.3.1.5 Cloud Types	S0365	HS-ETS1-2.		IT-NET 3	902 2.3	Identify basic cloud concepts.
8.3.1.6 Activity - Identify Cloud Terminology		HS-ETS1-2.		CCR.ELA-Literacy. RST.11-12.7.		
8.3.2 Networked Host Services						
8.3.2.1 DHCP Services	K0452	HS-ETS1-2.		IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
8.3.2.2 DNS Services	K0332	HS-ETS1-2.		IT-NET 3	901 2.3	Explain the properties and characteristics of TCP/IP.
8.3.2.3 Web Services	K0398	HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.
8.3.2.4 File Services	K0116	HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.
8.3.2.5 Print Services	K0114	HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.
8.3.2.6 Email Services	K0444	HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.

8.3.2.7 Proxy Settings		HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.
8.3.2.8 Authentication Services	K0336	HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.
8.3.2.9 Intrusion Detection and Prevention Services	K0405	HS-ETS1-2.		IT-NET 3	902 2.4	
8.2.3.10 Universal Threat Management	K0469	HS-ETS1-2.		IT-NET 3	902 2.4	Summarize the properties and purpose of services provided by networked hosts.
8.3.2.11 Activity - Identify the Network Host Service		HS-ETS1-2.		CCR.ELA-Literacy. RST.11-12.7.		
Section 8.4 Common Preventive Maintenance Techniques Used for Networks	K0419				902 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.4.1 Network Maintenance	K0419				902 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.4.1.1 Preventive Maintenance Procedures	K0419	HS-ETS1-2.		IT-NET 5.8	902 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
Section 8.5 Basic Troubleshooting Process for Networks	T0237				902 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.5.1 Applying the Troubleshooting Process to Networks	T0237				902 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
8.5.1.1 Identify the Problem	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
8.5.1.2 Establish a Theory of Probable Cause	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
8.5.1.3 Test the Theory to Determine Cause	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
8.5.1.4 Establish a Plan of Action to Resolve the Problem and Implement the Solution	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
8.5.1.5 Verify Full System Functionality and Implement Preventive Measures	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
8.5.1.6 Document Findings, Actions, and Outcomes	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
8.5.2 Common Problems and Solutions for Networks	T0237				902 4.0	Software Troubleshooting
8.5.2.1 Identify Common Problems and Solutions	T0237	HS-ETS1-2.	ITEA.10.	IT-NET 5.9	902 4.0	Software Troubleshooting
Section 8.6 Summary						
8.6.1 Conclusion						
8.6.1.1 Applied Networking		HS-ETS1-2.		IT-NET 3	902 1.4	Given a scenario, use appropriate Microsoft operating system features and tools.
Chapter 8: Terms and Concept Practice - Flash Cards		HS-ETS1-2.		CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 9, Laptops and Mobile Devices

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 9.0 Introduction						
9.0.1 Welcome					901.9.	
9.0.1.1 Laptops and Mobile Devices	K0109			IT-NET 1.4	901 3.1	Install and configure laptop hardware and components
Section 9.1 Laptop Components				IT-NET 1.4		
9.1.1 Features of Laptop Components				IT-NET 1.4		
9.1.1.1 External Features Unique to Laptops		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.1.1.2 Common Input Devices and LEDs in Laptops	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.2	Explain the function of components within the display of a laptop.
9.1.1.3 Internal Components	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.1.1.4 Special Function Keys		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.3	Given a scenario, use appropriate laptop features.
9.1.1.5 Docking Station versus Port Replicator		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.3	Given a scenario, use appropriate laptop features.
9.1.1.6 Worksheet - Research Docking Stations		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.1.2 Laptop Displays						
9.1.2.1 LCD, LED, OLED Displays	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.2	Explain the function of components within the display of a laptop.
9.1.2.2 Backlights and Inverters	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.2	Explain the function of components within the display of a laptop.
9.1.2.3 Wi-Fi Antenna Connectors	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.1.2.4 Webcam and Microphone	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.2	Explain the function of components within the display of a laptop.
Section 9.2 Laptop Configuration						
9.2.1 Power Settings Configuration						

9.2.1.1 Power Management		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 2.1	901 3.1	Install and configure laptop hardware and components.
9.2.1.2 Managing ACPI Settings in the BIOS		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 2.1	901 3.1	Install and configure laptop hardware and components.
9.2.1.3 Activity - Match ACPI Standards		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 2.1 CCR.ELA-Literacy. RST.11-12.7.		
9.2.1.4 Managing Laptop Power Options		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 2.1	901 3.1	Install and configure laptop hardware and components.
9.2.2 Wireless Configuration						
9.2.2.1 Bluetooth		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	901 3.5	Compare and contrast accessories and ports of other mobile devices.
9.2.2.2 Cellular WAN		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	901 2.7	Compare and contrast Internet connection types, network types and their features.
9.2.2.3 Wi-Fi		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
Section 9.3 Laptop Hardware and Component Installation and Configuration						
9.3.1 Expansion Slots						
9.3.1.1 Expansion Cards	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.1.2 Flash Memory	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.1.3 Smart Card Reader	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.1.4 SODIMM Memory	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.1.5 Worksheet - Research Laptop RAM		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.3.2 Replacing Hardware Devices						

9.3.2.1 Overview of Hardware Replacement	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.2 Power	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 2.1	901 3.1	Install and configure laptop hardware and components.
9.3.2.3 Worksheet - Research Laptop Batteries		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.3.2.4 Keyboard, Touchpad, and Screen	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.3	Given a scenario, use appropriate laptop features.
9.3.2.5 Worksheet - Research Laptop Screens		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.3.2.6 Internal Storage Drive and Optical Drive	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.7 Worksheet - Research Laptop Hard Drives		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.3.2.8 Wireless Card	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.9 Speakers	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.10 CPU	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.11 Motherboard	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.12 Plastic Frames	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.1	Install and configure laptop hardware and components.
9.3.2.13 Video - Replace Laptop Components		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.3.2.14 Worksheet - Research Building a Specialized Laptop		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
Section 9.4 Mobile Device Hardware Overview						

9.4.1 Mobile Device Hardware						
9.4.1.1 Mobile Device Parts	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.5	Compare and contrast accessories and ports of other mobile devices.
9.4.1.2 Non-Upgradeable Hardware	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.5	Compare and contrast accessories and ports of other mobile devices.
9.4.1.3 Touchscreens	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 1.12	Install and configure common peripheral devices.
9.4.1.4 Solid State Drives	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 1.5	Install and configure storage devices and use appropriate media.
9.4.1.5 Connection Types	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.5	Compare and contrast accessories and ports of other mobile devices.
9.4.1.6 Activity - Identify Connection Types		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
9.4.1.7 Accessories	K0109	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.5	Compare and contrast accessories and ports of other mobile devices.
9.4.2 Other Mobile Devices						
9.4.2.2 Wearable Devices		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.4	Explain the characteristics of various types of other mobile devices.
9.4.2.2 Specialty Devices		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	901 3.4	Explain the characteristics of various types of other mobile devices.
Section 9.5 Common Preventive Maintenance Techniques for Laptops and Mobile Devices						
9.5.1 Scheduled Maintenance for Laptops and Mobile Devices						
9.5.1.1 Scheduling Maintenance	S0058	HS-ETS1.	ITEA.12.		901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
Section 9.6 Basic Troubleshooting Process for Laptops and Mobile Devices						
9.6.1 Applying						
9.6.1.1 Identify the Problem	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
9.6.1.2 Establish a Theory of Probable Cause	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
9.6.1.3 Test the Theory to Determine Cause	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.

9.6.1.4 Establish a Plan of Action to Resolve the Problem and Implement the Solution	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
9.6.1.5 Verify Full System Functionality and Implement Preventative Measures	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
9.6.1.6 Document Findings, Actions, and Outcomes	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
9.6.2 Common Problems and Solutions for Laptops and Mobile Devices						
9.6.2.1 Identify Common Problems and Solutions	S0058	HS-ETS1.	ITEA.10.	IT-NET 5.9	901 4.5	Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
9.6.2.2 Worksheet - Research Laptop Problems		HS-ETS1.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. WHST.11-12.7.		
9.6.2.3 Worksheet - Gather Information from the Customer		HS-ETS1.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. WHST.11-12.7.		
9.6.2.4 Worksheet - Investigating Support Websites and Repair Companies		HS-ETS1.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. WHST.11-12.7.		
Section 9.7 Summary						
7.8.1 Summary						
7.8.1.1 Laptops and Mobile Devices	K0109			IT-NET 5.9	901 3.0	Mobile Devices
Chapter 9: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 10, Mobile, Linux, and OS X Operating System

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 10.0 Introduction						
10.0.1 Welcome						
10.0.1.1 Mobile, Linux, and OS X Operating System	K0077			IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
Section 10.1 Mobile Operating Systems	K0077					
10.1.1 Android vs. iOS						
10.1.1.1 Open Source versus Closed Source		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.1.2 Mobile Application Development		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.1.3 Application and Content Sources		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.2 Android Touch Interface				IT-NET 4.1		
10.1.2.1 Home Screen Items		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.2.2 Managing Apps, Widgets, and Folders		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.2.3 Lab - Working with Android		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
10.1.3 iOS Touch Interface						
10.1.3.1 Home Screen Items		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.3.2 Managing Apps and Folders		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.3.3 Lab - Working with iOS		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
10.1.4 Windows Phone Touch Interface						
10.1.4.1 Start Screen Items		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.

10.1.4.2 Managing Apps and Folders		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.5 Common Mobile Device Features				IT-NET 4.1		
10.1.5.1 Screen Orientation and Calibration		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.5.2 GPS		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.5.3 Lab - Mobile Device Features		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
10.1.5.4 Lab - Mobile Device Information		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.7.		
10.1.5.5 Convenience Features		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
10.1.5.6 Information Features		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 2.5	Identify basic features of mobile operating systems.
Section 10.2 Methods for Securing Mobile Devices						
10.2.1 Passcode Locks						
10.2.1.1 Overview of Passcode Locks		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 3.5	Compare and contrast various methods for securing mobile devices.
10.2.1.2 Lab - Passcode Locks - Android and iOS		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
10.2.1.3 Restrictions on Failed Login Attempts		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 3.5	Compare and contrast various methods for securing mobile devices.
10.2.2 Cloud-Enabled Services for Mobile Devices						
10.2.2.1 Remote Backup		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 3.5	Compare and contrast various methods for securing mobile devices.
10.2.2.2 Locator Applications		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 3.5	Compare and contrast various methods for securing mobile devices.

10.2.2.3 Remote Lock and Remote Wipe		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 4.1	902 3.5	Compare and contrast various methods for securing mobile devices.
10.2.3 Software Security						
10.2.3.1 Antivirus		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.8	902 3.5	Compare and contrast various methods for securing mobile devices.
10.2.3.2 Patching and Updating Operating Systems		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.8	902 3.5	Compare and contrast various methods for securing mobile devices.
Section 10.3 Network Connectivity and Email						
10.3.1 Wireless and Cellular Data Network						
10.3.1.1 Wireless Data Network		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.1.2 Lab - Mobile Wi-Fi - Android and iOS		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5 CCR.ELA-Literacy. RST.11-12.3.		
10.3.1.3 Cellular Communications		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.2 Bluetooth						
10.3.2.1 Bluetooth for Mobile Devices		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.2.2 Bluetooth Pairing		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 3.5	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.3 Configuring Email						
10.3.3.1 Introduction to Email		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.3.2 Activity - Matching Email Protocols		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1 CCR.ELA-Literacy. RST.11-12.7.		
10.3.3.3 Android Email Configuration		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.3.4 iOS Email Configuration		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1	902 2.6	Install and configure basic mobile device network connectivity and email.
10.3.3.5 Internet Email		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1	902 2.6	Install and configure basic mobile device network connectivity and email.

10.3.4 Mobile Device Synchronization						
10.3.4.1 Types of Data to Synchronize		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1	902 2.7	Summarize methods and data related to mobile device synchronization
10.3.4.2 Synchronization Connection Types		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.1	902 2.7	Summarize methods and data related to mobile device synchronization
Section 10.4 Linux and OS X Operating Systems						
10.4.1 Linux and OS X Tools and Features						
10.4.1.1 Introduction to Linux and OS X Operating Systems		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.1.2 Overview of Linux and OS X GUI	K0397	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.1.3 Overview of Linux and OS X CLI		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.1.4 Lab - Install Linux in a Virtual Machine and Explore the GUI		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. RST.11-12.3.		
10.4.1.5 Overview of Backup and Recovery		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.1.6 Overview of Disk Utilities		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.1.7 Video - Multiboot		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. RST.11-12.7.		
10.4.2 Linux an OS X Best Practices	K0397					
10.4.2.1 Scheduled Tasks	K0397	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.2.2 Security	K0397	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.3 Basic CLI	K0397					
10.4.3.1 File and Folder Commands	A0058	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.
10.4.3.2 Administrative Commands	A0058	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4	902 2.1	Identify common features and functionality of the Mac OS and Linux operating systems.

10.4.3.3 Lab - Working with the Linux Command Line		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 1.4 CCR.ELA-Literacy. RST.11-12.3.		
Section 10.5 Basic Troubleshooting Process for Mobile, Linux, and OS X Operating System	T0237					
10.5.1 Applying the Troubleshooting Process to Mobile, Linux, and OS X Operating System	T0237					
10.5.1.1 Identify the Problem	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.1.2 Establish a Theory of Probable Cause	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.1.3 Test the Theory to Determine Cause	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.1.4 Establish a Plan of Action to Resolve the Problem and Implement the Solution	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.1.5 Verify Full System Functionality and Implement Preventive Measures	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.1.6 Document Findings, Actions, and Outcomes	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.2 Common Problems and Solutions for Mobile Devices	T0237					
10.5.2.1 Identify Common Problems and Solutions	T0237	HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8	902 4.3	Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
10.5.2.2 Lab - Troubleshooting Mobile Devices		HS-ETS1.	ITEA.2. ITEA.9. ITEA.17.	IT-NET 5.8 CCR.ELA-Literacy. RST.11-12.3.		
Section 10.6 Chapter Summary						
10.6.1 Conclusion						
10.6.1.1 Mobile, Linux, and OS X Operating System				IT-NET 5.8	902 2.0	Other Operating Systems and Technologies
Chapter 10: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 11, Printers

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Exam Objective
Section 11.0 Introduction						
11.0.1 Welcome						
11.0.1.1 Printers				IT-NET 1.4		
Section 11.1 Common Printer Features					902 1.12	Install and configure common peripheral devices.
11.1.1 Characteristics and Capabilities					902 1.12	Install and configure common peripheral devices.
11.1.1.1 Characteristics and Capabilities of Printers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.12	Install and configure common peripheral devices.
11.1.1.2 Printer Connection Types		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.1.2 Printer Types					902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.1.2.1 Inkjet Printers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.1.2.2 Laser Printers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.1.2.3 Laser Printing Process		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.1.2.4 Activity - Part 1: Identify the Laser Printing Process Part 2: Order the Laser Printing Process		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4 CCR.ELA-Literacy. RST.11-12.7.	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.2.1.5 Thermal Printers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.2.1.6 Impact Printers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
11.2.1.7 Virtual Printers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 1.4	902 1.14	Compare and contrast differences between the various print technologies and the associated imaging process.
Section 11.2 Installing and Configuring Printers					902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.1 Installing and Updating a Printer					902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.

11.2.1.1 Installing a Printer		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.1.2 Types of Print Drivers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.1.1.3 Updating and Installing Print Drivers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.1.4 Printer Test Page		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.1.5 Test Printer Functions		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.1.6 Lab - Install a Printer in Windows 8 Install a Printer in Windows 7 and Vista		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		
11.2.2 Configuring Options and Default Settings					902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.2.1 Common Configuration Settings		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.2.2 Global and Individual Document Options		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.2.3 Optimizing Printer Performance					902 1.15	Given a scenario, perform appropriate printer maintenance.
11.2.3.1 Software Optimization		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.15	Given a scenario, perform appropriate printer maintenance.
11.2.3.2 Hardware Optimization		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	902 1.15	Given a scenario, perform appropriate printer maintenance.
Section 11.3 Sharing Printers					901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.1 Operating System Settings for Sharing a Printer					901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.1.1 Configuring Printer Sharing		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.1.2 Connecting to a Shared Printer		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.1.3 Wireless Printer Connections		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.2 Print Servers					901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.2.1 Purposes of Print Servers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.2.2 Software Print Servers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.

11.3.2.3 Hardware Print Servers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.2.4 Dedicated Printer Servers		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1	901 1.13	Install SOHO multifunction device/printers and configure appropriate settings.
11.3.2.5 Lab - Share a Printer in Windows 8 Share a Printer in Windows 7 and Vista		HS-ETS1.	ITEA.2. ITEA.8.	IT-NET 4.1 CCR.ELA-Literacy. RST.11-12.3.		<ul style="list-style-type: none"> • Two computers directly connected or connected through a hub or switch • Windows 7 installed on both computers • A printer installed on one of the computers
Section 11.4 Maintaining and Troubleshooting Printers					901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.1 Printer Preventive Maintenance					901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.1.1 Vendor Guidelines		HS-ETS1.	ITEA.12.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.1.2 Replacing Consumables		HS-ETS1.	ITEA.12.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.1.3 Cleaning Methods		HS-ETS1.	ITEA.12.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.1.4 Operational Environment		HS-ETS1.	ITEA.12.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
9.5.1.5 Worksheet - Search for Certified Printer Technician Jobs		HS-ETS1.	ITEA.12.	IT-NET 5.4 CCR.ELA-Literacy. WHST.11-12.7.		<ul style="list-style-type: none"> • Activity PDF • Connection to the Internet
11.4.2 Troubleshooting Printer Issues					901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.2.1 Identify the Problem		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.2.2 Establish a Theory of Probable Cause		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.2.3 Test the Theory to Determine Cause		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.2.4 Establish a Plan of Action to Resolve the Problem and Implement the Solution		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.2.5 Verify Full System Functionality and Implement Preventative Measures		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.2.6 Document Findings, Actions, and Outcomes		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
11.4.3 Common Problems and Solutions for Printers					901 4.6	Given a scenario, troubleshoot printers with appropriate tools.

11.4.3.1 Identify Common Problems and Solutions		HS-ETS1.	ITEA.10.	IT-NET 5.4	901 4.6	Given a scenario, troubleshoot printers with appropriate tools.
Section 11.5 Chapter Summary						
11.5.1 Conclusion						
11.5.1.1 Printers				IT-NET 4.1		
Chapter 11: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 12, Security

PAGE	NICE	NGSS	ITEA	DODEA	Exam Standard	Exam Objective
Section 12.0 Introduction						
12.0.1 Welcome						
12.0.1.1 Security				IT-NET 3.8		
Section 12.1 Security Threats						
12.1.1 Types of Security Threats		HS-ETS1.	ITEA.2.		220-902 3.0	3.0 Security
12.1.1.1 Malware		HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.1	3.1 Identify common security threats and vulnerabilities
12.1.1.2 Activity - Identify Malware Types		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.4.		
12.1.1.3 Phishing	K0480	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.1	3.1 Identify common security threats and vulnerabilities
12.1.1.4 Spam	K0480	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.1	3.1 Identify common security threats and vulnerabilities
12.1.1.5 TCP/IP Attacks	K0480	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.1	3.1 Identify common security threats and vulnerabilities
12.1.1.6 Activity - Identify TCP/IP Attacks		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.4.		
12.1.1.7 Zero-Day Attacks	K0480	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.1	3.1 Identify common security threats and vulnerabilities
12.1.1.8 Social Engineering	K0480	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.1	3.1 Identify common security threats and vulnerabilities
Section 12.2 Security Procedures					220-902 3.1	3.1 Identify common security threats and vulnerabilities
12.2.1 Windows Local Security Policies	K0158				220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.1 What Is a Security Policy?	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.2 Accessing Windows Local Security Policy	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.3 Usernames and Passwords	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.4 Security Settings for Account Policies	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.5 Local Password Management	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.6 Security Settings for Local Policies	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.7 Exporting the Local Security Policy	K0158	HS-ETS1.	ITEA.6.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.1.8 Lab - Configure Windows Local Security Policy		HS-ETS1.		IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.3.		
12.2.2 Securing Web Access	K0624			IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.2.1 Web Security	K0624	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods

12.2.2.2 ActiveX Filtering	K0624	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.2.3 Pop-up Blocker	K0624	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.2.4 SmartScreen Filter	K0624	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.2.5 InPrivate Browsing	K0624	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.3 Protecting Data				IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.3.1 Software Firewalls	K0049	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.3.2 Biometrics and Smart Cards	K0075	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.3.3 Data Backups	K0021	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12.2.3.4 File and Folder Permissions	K0049	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12.2.3.5 File and Folder Encryption	K0049	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12.2.3.6 Windows BitLocker	K0049	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12.2.3.7 Data Wiping	K0038	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.6	3.6 Given a scenario, use appropriate data destruction and disposal methods
12.2.3.8 Hard Drive Recycling and Destruction	K0038	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.6	3.6 Given a scenario, use appropriate data destruction and disposal methods
12.2.3.9 Activity - Identify Data Protection Terminology		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.4.		
12.2.4 Protection Against Malicious Software				IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.4.1 Malicious Software Protection Programs	S0076	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.4.2 Remediating Infected Systems	T0296	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.3.3 Signature File Updates	K0191	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.5 Security Techniques				IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.5.1 Common Communication Encryption Types	K0417	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.5.2 Service Set Identifiers	K0108	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.5.3 Wireless Security Modes	K0428	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.5.4 Universal Plug and Play	K0332	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.2.5.5 Firmware Updates	T0418	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.7	3.7 Given a scenario, secure SOHO wireless and wired networks
12.2.5.6 Firewalls	S0076	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.5.7 Port Forwarding and Port Triggering	S0076	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.7	3.7 Given a scenario, secure SOHO wireless and wired networks
12.2.5.8 Activity - Configure Wireless Security		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.4.	220-902 3.2	

12.2.6 Protecting Physical Equipment				IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.6.1 Physical Equipment Protection Methods	T0192	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.6.2 Security Hardware	T0192	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.2.6.3 Activity - Identify Physical Security Device		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.4.	220-902 3.2	
Section 12.3 Common Preventive Maintenance Techniques for Security				IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.3.1 Security Maintenance				IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.3.1.1 Operating System Service Packs and Security Patches	K0074	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.3.1.2 Data Backups	K0021	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.4	3.4 Given a scenario, deploy and enforce security best practices to secure a workstation
12.3.1.3 Lab - Configure Data Backup and Recovery in Windows		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.3.		
12.3.1.4 Windows Firewall	S0076	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.2	3.2 Compare and contrast common prevention methods
12.3.1.5 Lab - Configure a Firewall in Windows		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.3.		
12.3.1.6 Maintaining Accounts	K0158	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12.3.1.7 Managing Users	K0158	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12.3.1.8 Managing Groups	K0158	HS-ETS1.	ITEA.2.	IT-NET 3.8	220-902 3.3	3.3 Compare and contrast differences of basic Windows OS security settings
12..1.9 Lab - Configure Users and Groups in Windows		HS-ETS1.	ITEA.2.	IT-NET 3.8 CCR.ELA-Literacy. RST.11-12.3.		
Section 12.4 Basic Troubleshooting Process for Security					220-902 3.2	
12.4.1 Applying the Troubleshooting Process to Security					220-902 3.2	
12.4.1.1 Identify the Problem	T0237	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.1.2 Establish a Theory of Probable Cause	T0237	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.1.3 Test the Theory to Determine Cause	T0237	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.1.4 Establish a Plan of Action to Resolve the Problem and Implement the Solution	T0237	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.1.5 Verify Full System Functionality and, If Applicable Implement Preventive Measures	T0237	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.1.6 Document Findings, Actions and Outcomes	T0237	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.2 Common Problems and Solutions for Security		HS-ETS1.	ITEA.2.		220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory

12.4.2.1 Identify Common Problems and Solutions	T0531	HS-ETS1.	ITEA.2.	IT-NET 5.8	220-902 5.5	5.5 Given a scenario, explain the troubleshooting theory
12.4.2.2 Lab - Document Customer Information in a Work Order		HS-ETS1.	ITEA.2.	IT-NET 5.8 CCR.ELA-Literacy .RST.11-12.3.		
Section 12.5 Summary					220-902 3.0	3.0
12.5.1 Conclusion					220-902 3.0	3.0
12.5.1.1 Security				IT-NET 5.8	220-902 3.0	3.0
Chapter 12: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 13, The IT Professional

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standard
Section 13.0 The IT Professional						
13.0.1 Welcome						
13.0.1.1 The IT Professional				IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
Section 13.1 Communication Skills and the IT Professional						
13.1.1 Communication Skills, Troubleshooting, and Professional Behavior						
13.1.1.1 Relationship Between Communication Skills and Troubleshooting	K0010		ITEA.10.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.1.2 Relationship Between Communication Skills and Professional Behavior	K0010		ITEA.3.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.1.3 Worksheet - Technician Resources				IT-NET 1.4 CCR.ELA-Literacy. WHST.11-12.7.		
13.1.2 Working with a Customer						
13.1.2.1 Using Communication Skills to Determine Customer Problems	K0010		ITEA.4.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.2.2 Displaying Professional Behavior with Customers	K0010		ITEA.4.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.2.3 Activity - Putting a Customer on Hold			ITEA.4.	IT-NET 1.4 CCR.ELA-Literacy. RST.11-12.4.		
13.1.2.5 Keeping the Customer Focused on the Problem			ITEA.4.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.2.6 Using Proper Netiquette			ITEA.4.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.3 Employee Best Practices					902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.3.1 Time and Stress Management Techniques				IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.3.2 Observing Service Level Agreements				IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.1.3.3 Following Business Policies				IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
Section 13.2 Ethical and Legal Issues in the IT Industry					902.5.4	Demonstrate proper communication techniques and professionalism.
13.2.1 Ethical and Legal Considerations					902.5.4	Demonstrate proper communication techniques and professionalism.
13.2.1.1 Ethical Considerations in IT			ITEA.5.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.2.1.2 Legal Considerations in IT			ITEA.5.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.2.1.3 Licensing			ITEA.5.	IT-NET 1.4	902.5.3	
13.2.2 Legal Procedures Overview						
13.2.2.1 Computer Forensics			ITEA.5.	IT-NET 1.4	902.5.3	Given a scenario, explain the troubleshooting theory
13.2.2.2 Cyber Law and First Response			ITEA.5.	IT-NET 1.4	902.5.3	Given a scenario, explain the troubleshooting theory
13.2.2.3 Documentation and Chain of Custody			ITEA.5.	IT-NET 1.4	902.5.3	Given a scenario, explain the troubleshooting theory

Section 13.3 Call Center Technicians				IT-NET 1.4		
13.3.1 Call Centers, Level One and Level Two Technicians						
13.3.1.1 Call Centers			ITEA.6.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.3.1.2 Level One Technician Responsibilities			ITEA.6.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
13.3.1.3 Level Two Technician Responsibilities			ITEA.6.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
Section 13.4 Summary						
13.4.1 Conclusion						
13.4.1.1 The IT Professional			ITEA.6.	IT-NET 1.4	902.5.4	Demonstrate proper communication techniques and professionalism.
Chapter 13: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		

IT Essentials - Chapter 14, Advanced Troubleshooting

PAGE	NICE	NGSS	ITEA	DODEA	Exam Objective	Objective Standards
Section 14.0 Introduction						
14.0.1 Welcome						
14.0.1.1 Advanced Troubleshooting	T0237	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	901/902 - 4.0	Software, Hardware, and Network troubleshooting
14.0.1.2 Six Steps for Troubleshooting Review	T0237	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	902 - 5.5	Given a scenario, explain the troubleshooting theory
Section 14.1 Computer Components and Peripherals						
14.1.1 Apply Troubleshooting Process to Computer Components and Peripherals						
14.1.1.1 Advanced Problems and Solutions for Components and Peripherals	T0237	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	901 - 4.1	Given a scenario, troubleshoot common problems related to motherboards, RAM, CPU and power with appropriate tools
14.1.1.2 Lab - Troubleshoot Hardware Problems		HS-ETS1-3.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
14.1.1.3 Lab - Remote Technician - Repair Boot Problem		HS-ETS1-3.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
Section 14.2 Operating Systems						
14.2.1 Apply Troubleshooting Process to Operating Systems						
14.2.1.1 Advanced Problems and Solutions for Operating Systems	T0237	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	902 - 4.1	Given a scenario, troubleshoot PC operating system problems with appropriate tools
14.2.1.2 Lab - Troubleshoot Operating System Problems		HS-ETS1-3.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
14.2.1.3 Lab - Remote Technician - Fix an Operating System Problem		HS-ETS1-3.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
Section 14.3 Networks						
14.3.1 Apply Troubleshooting Process to Networks						
14.3.1.1 Advanced Problems and Solutions for Networks	S0041	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	901 - 4.4	Given a scenario, troubleshoot wired and wireless networks with appropriate tools
14.3.1.2 Lab - Troubleshoot Network Problems		HS-ETS1-3.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
14.3.1.3 Lab - Remote Technician - Fix a Network Problem		HS-ETS1-3.	ITEA.10.	IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
Section 14.4 Security						
14.4.1 Apply Troubleshooting Process to Security						
14.4.1.1 Advanced Problems and Solutions for Security	S0124	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	902 - 4.2	Given a scenario, troubleshoot common PC security issues with appropriate tools and best practices
14.4.1.2 Lab - Troubleshoot Security Problems				IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		

14.4.1.3 Lab - Remote Technician - Fix a Security Problem				IT-NET 5.9 CCR.ELA-Literacy. RST.11-12.3.		
Section 14.7 Summary						
14.7.1 Conclusion						
14.7.1.1 Advanced Troubleshooting	T0237	HS-ETS1-3.	ITEA.10.	IT-NET 5.9	901/902 - 4.0	Software, Hardware, and Network troubleshooting
Chapter 14: Terms and Concept Practice - Flash Cards				CCR.ELA-Literacy. RST.11-12.4.		