



IT Technician Pathways Course Guide

C-ID

Stage	Course Name or Topic	Related 3 rd Party Certifications	IT-MC C-ID	Course Description	NETLAB+ Labs available	College Course Title and Course Number
Computer Retail Sales and Support	Introduction to Retail or Business Fundamentals		BUS 100	Generic Retail Management, Retail Sales Business Concepts		
	Customer Service/Human Relations			This course provides students with basic knowledge of customer service by examining customer service from the provider's and customer's perspectives. It takes a pragmatic approach to applying the principles of service within an organization. Topics include leadership in customer service, customer retention and satisfaction, classifications of service organizations, and principles and practices of internal service. This course introduces students to human behavior as it relates to business. Topics include leadership, communication, status, decision making, motivation, and personnel problems.		
	Business Communication		BUS 115	This course applies the principles of ethical and effective communication to the creation of letters, memos, emails, and written and oral reports for a variety of business situations. The course emphasizes planning, organizing, composing, and revising business documents using word processing software for written documents and presentation-graphics software to create and deliver professional-level oral reports. This course is designed for students who already have college-level writing skills.		
	Microsoft Office Essentials			Overview: This course is designed for students interested in an overview and basic working knowledge of Microsoft Office Professional suite for personal and/or professional purposes. Emphasis is placed on MS Word, Excel, Access, Power Point and Outlook, and the integration of data within and between the programs		

	Information & Communications Technology Essentials	CompTIA A+	ITIS 110	This course provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional will be introduced. Preparation for the CompTIA A+ certification exams.	NISGTC Labs <ul style="list-style-type: none"> A+ A+ v2 	
	Business Information Systems, Computer Information Systems		ITIS 120	Examination of information systems and their role in business. Focus on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware and software components. Application of these concepts and methods through hands-on projects developing computer-based solutions to business problems. This course will provide students with business case studies and the application of technology solutions to solve the problems. The course provides students with basic database and spreadsheets knowledge and skills.		
Help Desk User Support	Computer Network Fundamentals	CompTIA Network+	ITIS 150	This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Preparation for the CompTIA Network+ certification exam.	NISGTC <ul style="list-style-type: none"> Network+ 	
	Systems and Network Administration (Network Operating Systems)	MCSA Server 2016	ITIS 155	This course will provide a student with the knowledge and skills required to build, maintain, troubleshoot and support server hardware and software technologies. The student will be able to identify environmental issues; understand and comply with disaster recovery and physical / software security procedures; become familiar with industry terminology and concepts; understand server roles / specializations and interaction within the overall computing environment.		
	Installing, Configuring and Administering a Microsoft OS (Desktop Support Technician I)	MCTS:Win10 (Microsoft Certified Technology Specialist:Win 10 Config)		This course will provide students with the knowledge and skills to install and configure Windows desktops and to configure mobile computers and applications that run on Windows in a network environment. Course content follows the Microsoft Official Academic Course curriculum and is intended to prepare students to take the	CSSIA <ul style="list-style-type: none"> Windows 10 Admin 	

				Microsoft Client component of the Microsoft Certified IT Professional (MCITP) and Microsoft Certified Technology Specialist (MCTS) certification exam.		
	Introduction to Information Security Systems (Security+ Certification Training)	CompTIA Security+	ITIS 160	An introduction to the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. It addresses hardware, software, processes, communications, applications, and policies and procedures with respect to organizational Cybersecurity and Risk Management.	NISGTC Labs <ul style="list-style-type: none"> • Security+ CSSIA • CompTIA Security+ 	
IT Technician	Routing & Switching Essentials	Cisco CCENT	ITIS 151	This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure routing and a switching for basic and secure functionality. By the end of this course students will be able to configure, secure, and troubleshoot routers and switches and resolve common issues with routing protocols, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.	CCNA Routing & Switching <ul style="list-style-type: none"> • CCNA1 Intro. to Networks • CCNA2 Routing & Switching Essentials 	
	Installing, Configuring and Administering Linux Operating System (Linux +)	CompTIA Linux+		This is a project-oriented course that provides students with the knowledge and skills to work as a junior level Linux administrator. This course follows the official Computing Technology Industry Association (CompTIA) curriculum and is intended to prepare students to take the Linux+ exam.	NISGTC Labs <ul style="list-style-type: none"> • Linux+ Series 1 • Linux+ Series 2 	
	Introduction to Scripting (Python/PowerShell)				The course will provide an overview of the history and use of scripting languages and will focus on Python, which is used in software development, internet and security applications. Windows PowerShell will also be covered.	

Cybersecurity Specialist	Principles of Cybersecurity Analysis	CompTIA CSA+	ITIS 166*	Focused on learning the critical knowledge and skills that are required to prevent, detect, and combat cybersecurity threats, and includes the application of behavioral analytics to improve the overall state of IT security.	NISGTC Labs <ul style="list-style-type: none"> • Python Security 	
	Certified Ethical Hacker (cybersecurity)	EC Council CEH	ITIS 164	This course introduces students, who have completed the Introduction to Information Security Systems course, to the various methodologies for attacking a network. Students will be introduced to the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network within the context of properly securing a network. The course will emphasize network attack methodologies with the emphasis on student use of network attack	<ul style="list-style-type: none"> • NDG Ethical Hacking • NISGTC Ethical Hacking 	

				techniques and tools and appropriate defenses and countermeasures. Students will experience a hands-on practical approach to penetration testing measures and ethical hacking.		
	Introduction to Computer Forensics Investigations	IACIS CFCE	ITIS 165	The class will cover such topics as how to recognize that a computer crime has occurred and steps to follow when acquiring, authenticating, and analyzing data on a compromised system. Hands-on portion will explore the use of several Computer Forensics tools.	<ul style="list-style-type: none"> • NDG Forensics • NISGTC Forensics 	
	CCNA Security	CCNA Security		Provides an introduction to the core security concepts and skills needed for the installing, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices.	<ul style="list-style-type: none"> • CCNA Security V1.1 • CCNA Security V1.2 • CCNA Security V2.0 	
	Advanced Security Concepts	CISSP		This course walks the student through the steps to become a cybersecurity consultant. Topics will include what a cybersecurity consultant does and ways to become one. Tools used, type of training needed, and the ethics of security consulting are explained. There will be a lecture and hands-on portions of the course with the hands-on portion demonstrating tools commonly used by a security consultant.		

IT Networking Specialist	CCNA 3: Scaling Networks	Cisco CCNA		The focus of this course is on the architecture, components, and operations of routers and switches in a larger and more complex network. You will learn how to configure routers and switches for advanced functionality. By the end of this course, you will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks.	<ul style="list-style-type: none"> • CCNA3 Scaling Networks 	
	CCNA 4: Connecting Networks	Cisco CCNA		The focus of this course is on the WAN technologies and network services required by converged applications in a complex network. In this course, you will learn the selection criteria of network devices and WAN technologies to meet network requirements.	<ul style="list-style-type: none"> • CCNA4 Connecting Networks 	
	Cisco Wireless Network Fundamentals	CCNA Wireless		Implementing Cisco Wireless Network Fundamentals course is designed for individuals who are involved in the technical management of Cisco wireless platforms and solutions, which involves installing, configuring, operating and troubleshooting.		

	Firewall Essentials	Palo Alto Networks ACE		Successful completion of this course will enhance the student's understanding of how to configure and manage Palo Alto Networks® firewalls. The student will learn and get hands-on experience configuring, managing, and monitoring a firewall.	Palo Alto Networks Academy <ul style="list-style-type: none">• Firewall Essentials	
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