Technology

The following courses utilize Microsoft E-Learning:

- Computer Applications: Microsoft Access
- Computer Applications: Microsoft Excel
- Computer Applications: Microsoft Outlook
- Computer Applications: Microsoft PowerPoint
- Computer Applications: Microsoft Word
- Database Administration Fundamentals
- Web Development Fundamentals
- Software Development Fundamentals
- Windows Development Fundamentals
- Windows Server Security Fundamentals
- Windows Server Networking Fundamentals
- Digital Literacy

The following courses utilize Microsoft E-books:

- Windows Operating Systems Fundamentals
- .NET Fundamentals
- Mobile Development Fundamentals
- Gaming Development Fundamentals
- HTML5 App Development Fundamentals
- Software Testing Fundamentals

Evidence of Mastery is measured by Chapter exams, Labs, Virtual Labs, Project/Demonstration of Tasks.

Computer Applications: Microsoft Access - *certification available*. This eLearning course is an introduction to the features of Access. Students will be able to structure databases, create and format database elements, enter and modify data, create and modify queries, present and share data, and manage and maintain databases. This course prepares students for Exam 70-605 Using Microsoft Office Access.

Computer Applications: Microsoft Excel - *certification available*. This eLearning course is an introduction to the features of Excel. Students will be able to create and manipulate data, format data and content, create and modify formulas, create and format charts and illustrations, apply conditional formatting, present data visually, and manage

collaborating and securing data. This course prepares students for Exam 70-602 Using Microsoft Office Excel.

Computer Applications: Microsoft Outlook - *certification available*. This eLearning course is an introduction to the features of Outlook. Students will be able to manage messaging, scheduling, tasks, contacts, personal contact information as well as organize information. This course prepares students for Exam 70-604 Using Microsoft Office Outlook.

Computer Applications: Microsoft PowerPoint - *certification available*. This eLearning course is an introduction to the features of PowerPoint. Students will be able to create and format presentations; create and format slide content; create and modify SmartArt diagrams; insert and modify illustrations, shapes, charts, and tables; and manage collaboration and presentation delivery. This course prepares students for Exam 70-603 Using Microsoft Office PowerPoint.

Computer Applications: Microsoft Word - *certification available*. This eLearning course is an introduction to using the features of Word. Students will be able to create and customize documents, format content, insert and format illustrations and text, structure content by using Quick Parts, create and modify tables and lists, review documents, and manage sharing and securing content. This course prepares students for Exam 70-601: Using Microsoft Office Word.

Database Administration Fundamentals (Exam 98-364) – This course is intended to help high-school students gain the foundational knowledge they need to begin building a career by using Microsoft technologies. By following the steps in this learning plan, students will gain the knowledge and skills required to

- Understand core database concepts (DML, DDL, and RDBMS)
- Create database objects (TSQL, data types, tables, and views)
- Manipulate data (SELECT queries, update and delete data)
- Understand data storage
- Administer a database (security, backup, and restore)

Web Development Fundamentals (Exam 98-363) – This course is intended to help high-school students gain the foundational knowledge they need to begin building a Web development career by using Microsoft technologies. By following the steps in this learning plan, students will gain the knowledge and skills required to

- Understand the fundamentals of Web-based application development

- Create ASP.NET applications using server-side and client-side coding techniques and tools
- Understand the Web application event model
- Understand Web services and communications with services
- Access and display data in a Web application
- Deploy and host Web applications using Internet Information Server (IIS)
- Understand the use of various configuration options for ASP.NET applications
- Program Web Applications
- Work with Data and Services (XML)
- Troubleshoot and Debug Web Applications
- Work with Client-Side Scripting (Understand ASP.NET AJAX)

Software Development Fundamentals (Exam 98-361) – This course is intended to help high-school students gain the foundational knowledge they need to begin building a software development career. By following the steps in this learning plan, students will gain an understanding of:

- Core programming concepts, such as computer storage and data types, decision structures, and error handling
- Object oriented programming, including classes, inheritance, polymorphism, and encapsulation
- General Software Development, including application life cycle management, application specifications, algorithms and data structures
- Web Applications, including Web page development (HTML, JavaScript, and CSS), Microsoft ASP.NET Web application development, Web hosting, and Web services
- Desktop Applications, including Windows® Forms applications, console-based applications, and Windows Services
- Databases, including relational database management systems, database query methods, and database connection methods

Windows Development Fundamentals (Exam 98-362) – This course is intended to help high-school students gain the foundational knowledge they need to begin building a Windows development career by using Microsoft technologies. By following the steps in this learning plan, students will gain the knowledge and skills required to:

- Create graphical user interface (GUI) applications that run on Windows by using Windows Forms or Windows Presentation Foundation (WPF)
- Program and host Windows Services on a computer that runs Windows
- Access data from various sources for use in a Windows-based application and

- Deploy a Windows application to target computers

Windows Server Administration Fundamentals (Exam 98-365) –This course is intended to help high-school students gain the foundational knowledge required to begin building a career by using Microsoft technologies. By following the steps in this learning plan, students will gain knowledge of fundamental Windows Server 2008 administration concepts such as server installation, server roles, Active Directory, storage, server performance management, and server maintenance.

Windows Server Networking Fundamentals (Exam 98-366) –This course is intended to help high-school students gain the foundational knowledge required to begin building a career by using Microsoft technologies. By following the steps in this learning plan, students will gain a fundamental understanding of networking concepts in a Windows Server 2008 environment such as network infrastructures, network hardware, and protocols and services.

Windows Server Security Fundamentals (Exam 98-367) –This course is intended to help high-school students gain the foundational knowledge required to begin building a career by using Microsoft technologies. By following the steps in this learning plan, students will gain a fundamental understanding of security concepts in a Windows Server 2008 environment such as security layers, operating system security, network security, and security software.

Digital Literacy. Whether you are new to computing or have some experience, Digital Literacy will help you develop a fundamental understanding of computers. The courses help you learn the essential skills to begin computing with confidence, be more productive at home and at work, stay safe online, use technology to complement your lifestyle, and consider careers where you can put your skills to work.

The Microsoft Digital Literacy curriculum has three levels.

- The Basic curriculum features a course called A First Course Toward Digital Literacy. This course teaches the value of computers in society and introduces you to using a mouse and the keyboard.
- The Standard curriculum features five courses that cover computer basics; using the internet and productivity programs; security and privacy; and digital lifestyles. These five courses are available in three versions that use examples and screenshots from different versions of Windows and Microsoft Office. Please read the details below.

- The Advanced curriculum features four courses that cover creating an e-mail account, creating a great resume, searching for content on the World Wide Web and social networking.

Windows Operating Systems Fundamentals - The Windows Operating System Fundamentals course is designed to cover all the learning objectives for that MTA exam 98-349. The Microsoft Technology Associate (MTA) exam objectives are highlighted throughout the textbook. MTA text covers the following Windows Operating System vital fundamental skills:

- Understanding Operating System Configurations
- Installing and Upgrading Client Systems
- Understanding Native Applications, Tools, Mobility, and Remote Management and Assistance
- Manage Applications, Services, Folders, and Libraries
- Manage Devices
- Understanding File and Print Sharing
- Maintaining, Updating, and Protecting Windows
- Understanding Backup and Recovery Methods

.NET Fundamentals - The Microsoft .NET Fundamentals course is designed to cover all the learning objectives for that MTA exam 98-372. The Microsoft Technology Associate (MTA) exam objectives are highlighted throughout the textbook. MTA text covers the following .NET Fundamental skills:

- Understanding Object-Oriented Programming
- Understanding Data Types and Collections
- Understanding Events and Exceptions
- Understanding Code Compilation and Deployment
- Understanding Input/Output (I/O) Classes
- Understanding Security

Mobile Development Fundamentals – This course is designed to cover all the learning objectives for that MTA exam 98-373. The Microsoft Technology Associate (MTA) exam objectives are highlighted throughout the textbook. MTA text covers the following Mobile Development Fundamentals skills:

- Understanding Mobile Devices, Interactions, and Tools
- Working in a Mobile App Development Environment
- Exploring Networked Data and Data Stores

- Exploring Mobile Device Networking
- Understanding Silverlight and Mobile Code
- Understanding Mobile App Development Concepts and Working with APIs
- Using Mobile Device Controls and Creating User Interfaces
- Testing, Debugging, and Deploying a Mobile App

Gaming Development Fundamentals – This course is designed to cover all the learning objectives for MTA Exam 98-374. The Microsoft Technology Associate (MTA) exam objectives are highlighted throughout the textbook. MTA text covers the following Gaming Development Fundamentals skills:

- Ideating and Conceptualizing a Game
- Identifying and Managing Game Requirements
- Creating the Game Output Design
- Designing Specific Game Components
- Developing the Game User Interface (UI)
- Developing the Game Functionality

HTML5 App Development Fundamentals – This course is designed to cover all the learning objectives for that MTA exam 98-375. The Microsoft Technology Associate (MTA) exam objectives are highlighted throughout the textbook. MTA text covers the following HTML5 App Development Fundamentals skills:

- Managing the Application Life Cycle
- Building the User Interface by Using HTML5: Text, Graphics, and Media
- Building the User Interface by Using HTML5: Organization, Input, and Validation
- Understanding CSS Essentials: Content Flow, Positioning, and Styling
- Understanding CSS Essentials: Layouts
- Managing Text Flow by Using CSS
- Managing the Graphical Interface by Using CSS
- Understanding JavaScript and Coding Essentials
- Creating Animations, Working with Graphics, and Accessing Data
- JavaScript Coding for the Touch Interface, Device and Operating System Resources, and More

Software Testing Fundamentals - This course is designed to cover all the learning objectives for that MTA exam 98-379. The Microsoft Technology Associate (MTA) exam objectives are highlighted throughout the textbook. MTA text covers the Software Testing Fundamentals skills:

- Manage the Application Life Cycle
- Build the User Interface by Using HTML5
- Format the User Interface by Using CSS
- Code by Using JavaScript