



**MWCC Programs for**

**High School Students**



**Mount Wachusett  
Community College**



## Inquire about our programs at Worcester Technical High School!

**For more information on:**

Dual Enrollment

College courses

Contact the Networking Academy office (508) 799-1971

For more information on the courses offered at WTHS, email the Cisco Networking Academy at [netacad@techhigh.us](mailto:netacad@techhigh.us)

To coordinate new MWCC collaborations or for information on how to access new programs, call (978) 630-9248.

**Mount Wachusett Community College**

**Gardner, MA 01440-1000 / USA**

**(978) 632-6600 [www.mwcc.edu](http://www.mwcc.edu)**

**An AA/EEO Institution**



Get a Head Start

on college!



*College credit. Exciting courses. Career exposure.* These are just some of the benefits of enrolling in MWCC courses and programs — even as a junior or senior! MWCC will give you all the support you need along the way: academic and career counseling, tutoring, workshops, and activities.

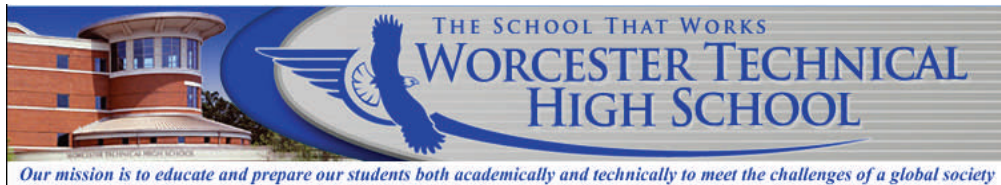
## Open to all High School Students

Dual Enrollment: a head start on college

Whether in high school or home school programs, juniors and seniors can enroll in MWCC classes prior to high school graduation. Take courses that will transfer to most two and four-year public and private colleges and universities while completing your high school graduation requirements.

Participants are considered MWCC students and enjoy all the same benefits. You will be encouraged to participate fully in college activities and programs, including the Honors Program, academic support services, and other co-curricular activities. Enroll at MWCC on either a part or full time basis.

## Take a college course at the Worcester Technical High School Campus!



Beginning with the graduating class of 2008, students who were enrolled in Worcester Technical High School(WTHS) and successfully completed the Networking Academy courses designated in the articulation agreement as evidenced by the Certificate of Completion from Cisco, received college credits. Junior and senior year high school students who successfully complete the Networking Academy courses at WTHS also receive MWCC college credits.

Employers worldwide are looking for highly-trained individuals with demonstrated skill in computer electronics technology. Learn to setup, design and support new technologies in voice, cabling, and data security and to implement networking hardware at associate and professional levels. Emphasis will be placed on networking design, router and switch installation, configuration and management, voice over IP and infrastructure security. This program emphasizes the importance of certification and assists students in preparing for certification examinations.

At the completion of the network academy courses, students will be prepared for the following certification exams: CompTIA A+, Cisco Certified Networking Associate (CCNA), Cisco Certified Networking Professional (CCNP), Securing Cisco Network Devices (SND), Cisco Secure PIX Firewall (CSPF).

## CompTIA A+ Classes

### **CET101 Computer Technology I,**

The topics in this course align with CompTIA A+ Essentials exam required for all A+ candidates. The material presented will cover core competencies in the latest hardware and software technologies, including a greater emphasis on information security skills, safety and environmental issues, and soft skills. This first course will align with the CompTIA A+ Essentials exam required for all A+ candidates. CET101 Computer Technology I, aligns with CompTIA A+ Essentials exam required for all A+ candidates.

### **CET102 Computer Technology II**

This course is designed to introduce the student to the advanced material covered on the CompTIA A+ Certification Exams. Through further self study, obtained partially by completing practice test exams and through hands-on experience during shop, the student

should then be able to take and pass the A+ certification exams. The updated CompTIA A+ credential requires two tests: CompTIA A+ Essentials Exam plus CompTIA A+ 220-602 Exam. A+ Exams will cover hardware and software with added elements of security and soft skills, as well as safety and environmental issues.

## CCNA Classes

### **EDC102 Networking for Home and Small Businesses**

This course will teach basic skills needed to install networks in a SOHO environment. It provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in home and small business environments. Prerequisites: CET101 and CET102 or permission of instructor.

### **EDC 103 Working at a Small-to-medium Business or ISP**

This course prepares students for jobs as network technicians. It also helps students develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It also familiarizes students with servers that provide e-mail services, Web space, and authenticated access. Students also learn about soft skills required for help desk and customer service positions. Network monitoring and basic troubleshooting skills are taught in context. Prerequisite: EDC102.

### **EDC104 Routing and Switching in the Enterprise**

This course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Prerequisite: EDC103.

### **EDC105 Designing and Supporting Computer Networks**

This course introduces students to network design processes. Students follow a standard design process to expand and upgrade each network, which includes requirements gathering, proof-of-concept, and project management. Lifecycle services, including upgrades, competitive analyses, and system integration, are presented in the context of pre-sale support. There will be Packet Tracer and lab exercises, pen-and-paper exercises, and role-playing exercises that students complete while developing their network upgrade proposals. Prerequisite: EDC104.

## CCNP Classes

### **EDC110 Building Scalable Networks**

This course will teach advanced skills required to implement and support enterprise-class IP routing networks. The course will cover multi-cast routing, expanded coverage of IPv6, and routing protocol authentication with outer routing protocol updates; it will also leverage the latest IOS software. This course includes a more in-depth look at EIGRP and Single Area OSPF, along with Multi-Area OSPF, IS-IS, BGP, route summarization, route authentication, redistribution between routing protocols, multicast routing, discard routes, loop avoidance,

and IPv6. Structure and lookup process of the IP routing table is also discussed. This will align with the Building Scalable Cisco Internetworks (BSCI) 642-901 exam. Prerequisite: EDC 105.

#### **EDC111 Implementing Secure Converged Wide-area Networks**

This course will teach advanced skills required to secure and enhance services in enterprise networks for teleworkers and remote sites. It will focus on securing remote access, VPN client configuration and other topics involved Multi-Protocol Label Switching (MPLS), IPsec, Cisco device hardening, IOS firewall features, and IOS threat defense features. The course aligns with the Implementing Secure converged WANs (ISCW) 642-825 exam. Prerequisite: EDC 105.

#### **EDC112 Building MultiLayer Switched Networks**

This course teaches advanced skills required for building enterprise-class switched networks with integrated VoIP and wireless applications. The course will cover wireless LANs, basic quality of service (QoS) to support voice, high-availability features, and enhanced security for switches. This course includes a more-depth look at VLANs, trunking, STP, RSPT and inter-VLAN routing, along with multilayer switching, CEF, high availability in switched networks with HSRP, VRRP and GLBP; IP Telephony (VoIP), and securing switched networks. This will align with the Building Cisco Multilayer Switched Network (BCMSN) 642-812 exam. Prerequisite: EDC 105.

#### **EDC113 Optimized Converged Networks**

This course will teach advanced skills required to optimize QoS in converged networks supporting voice, wireless, and security applications. This course discusses VoIP implementation, packetized voice, IP Quality of Service, DiffServ, DSCP, IP packet classification and marking, QoS service class, Network Based Application Recognition (NBAR) queuing implementations including WFQ, CBWFQ, LLQ; congestion avoidance mechanisms such as RED, WRED, CB-WRED; traffic shaping and policing, WAN link efficiency mechanisms, and VPNs. This course aligns with the Optimizing Converged Cisco Networks (ONT) 642-845 examination. Prerequisite: EDC 105.

## Microsoft IT Academy Courses

#### **EDC117 Configuring Vista Client (MCTS)**

This course will focus on four main areas of the Windows Vista Operating System: installing, securing, networking, and browsing. By the end of the course, the student will have installed and configured a Windows Vista desktop that is secure, on the network, and ready for browsing. This is the first course in the Windows Vista curriculum and will serve as the entry point for other Windows Vista Technology Specialist courses.

**For more information on the courses offered and current class schedules at Worcester Technical High School, email the Cisco Networking Academy at [netacad@techhigh.us](mailto:netacad@techhigh.us)**