



# COMPUTER ENGINEERING TECHNOLOGY (NETWORKING)

*Associate in Science Degree (and related Certificates)*

GET ON THE RUNWAY TO A GREAT CAREER.

The national demand for information technology specialists is projected to grow tremendously over the next few years, with almost half of these new jobs requiring the training and skills of a network specialist. With Valencia's A.S. Degree in Computer Engineering Technology, you will be trained to design, administer, maintain and support Local and Wide Area computer network systems. This cutting-edge program also includes two areas of specialization: Cisco and Microsoft, which helps prepare you for industry certification. Graduates will be qualified for technological roles in network design, network installation and maintenance; inter-network communication and connectivity; network administration; and microcomputer installation, as well as maintenance and repair.

## For a Jump Start on a Great Career...

Take the fast track toward reaching your career goals with one of our certificate programs. Designed to equip you with specialized skills for immediate employment, these programs typically do not contain general education courses, but rather courses related to your degree. They can also be combined with other certificates in the same program, like building blocks, to help you progress toward completing your A.S. degree.

- Cisco Network Associate (CCNA) (12 credits)
- Microcomputer Repairer/Installer (15 credits)
- Microsoft Systems Engineer (MCSE) (27 credits)
- Microsoft Systems Administrator (MCSA) (21 credits)

## Potential Careers

- Network/Systems Administrator
- Wireless Network Technician
- Network Support Technician
- Computer Support Specialist
- Network/Systems Specialist
- PC Technician
- Data Communications Analyst

## Potential Earnings

\$35,000 - \$50,000 per year

## Contacts

### Perspective Students:

Contact Enrollment Services at [enrollment@valenciacc.edu](mailto:enrollment@valenciacc.edu) or call 407-582-1507.

### Current Students:

Mr. George Rausch <i>Lead Faculty</i>	West Campus: 407-582-1938 e-mail: <a href="mailto:grausch@valenciacc.edu">grausch@valenciacc.edu</a>
Ms. Amy Love <i>Career Program Advisor</i>	West Campus: 407-582-1973 e-mail: <a href="mailto:alove8@valenciacc.edu">alove8@valenciacc.edu</a>
Ms. Launa Sickler <i>Career Program Advisor</i>	East Campus: 407-582-2504 e-mail: <a href="mailto:lsickler@valenciacc.edu">lsickler@valenciacc.edu</a>
Ms. Kimberly Foster <i>Career Program Advisor</i>	Osceola Campus: 407-582-4172 e-mail: <a href="mailto:kfoster8@valenciacc.edu">kfoster8@valenciacc.edu</a>

## A.S. to Bachelor's Degree Career Path...

Now the A.S. degree has a career path to continue to a Bachelor's degree. All of Valencia's A.S. degrees will transfer into the new B.A.S. program at UCF's regional campuses, as well as other universities. The B.A.S. degree has seven different tracks you can specialize in – and the cool thing is, the specialization you major in does not have to be in the same area as the A.S. degree.

Check it out at [regionalcampuses.ucf.edu/bas](http://regionalcampuses.ucf.edu/bas)

## The Internship & Placement Office

is available to assist you in locating an internship or job resources.

Vertrilla Hunt, *East Campus*: 407-582-2726

Carmen Diaz, *West Campus*: 407-582-1034

Matthew Abalos, *Osceola Campus*: 407-582-4196

For more information, visit: [valenciacc.edu/ipo](http://valenciacc.edu/ipo)

# COMPUTER ENGINEERING TECHNOLOGY (NETWORKING)

## Computer Engineering Technology (Networking) with Specializations in:

Cisco

Microsoft

### Associate in Science Degree

This program is designed to prepare students for careers in computer and network engineering technology. Graduates will be qualified for technological roles such as network design, network installation and maintenance, inter-network communication and connectivity, network administration, microcomputer installation, maintenance and support. The program includes several courses that are essential in preparing individuals for achieving the requirements take the examinations of various certifications: A+, Network+, Cisco Certified Network Associate (CCNA), Microsoft Certified Professional (MCP), Microsoft Certified Systems Administrator (MCSA), and/or Microsoft Certified Systems Engineer (MCSE).

Graduates of specific programs at Orange County Tech Centers and TECO may be eligible for the award of credit in specific courses in this program. For information and requirements, visit the Valencia Web site at [valenciac.edu/asdegrees/tec.cfm](http://valenciac.edu/asdegrees/tec.cfm) to view the articulation agreement. Eligible students should contact the related academic department and/or career program advisor at Valencia for the award of credit.

Students who have earned the CISCO certification, may be eligible to receive college credit for certain courses in this program. For information and requirements, visit the Valencia Web Site at [valenciac.edu/asdegrees/tec.cfm](http://valenciac.edu/asdegrees/tec.cfm) to view the Alternative Award of Credit Agreement and complete a request form. To have the credit awarded, students should bring the required documentation to the Dean's academic department for verification and approval.

Several Florida public universities recently have begun to provide opportunities for A.S. degree graduates to pursue a bachelor's degree. Information about such opportunities, including those at the University of Central Florida, is found in the Introduction to this catalog section. Students who want to continue their education should contact their university of choice.

Students are strongly encouraged to consult a career program advisor in the department office for assistance in determining the best education plan for their career goals.

Although scheduling may not always provide for the following progression of courses, students should use the foundation, intermediate and advanced course sequence as a guide in program planning.

All degree-seeking students must satisfy entry testing requirements and satisfactorily complete all Mandatory Courses in reading, student success, mathematics, English, and English for Academic Purposes in which the student is placed.

### FOUNDATION COURSES

Course	Title	Credits
+ * ENC 1101	Freshman Composition I	3
^A1 CET 2178C	A+ Concepts (Hardware)	3
^ * MTB 1329C	Mathematics for Electronics	3
^A2 CET 2486C	Local Area Networks	3
^ EET 1214C	Introduction to Engineering Technology	2
	<b>Humanities (See A.S. Gen Ed Requirement)</b>	<b>3</b>
	<b>Science or</b>	
+* Mathematics (See A.S. Gen Ed Requirement)		3
	<b>Social Science (See A.S. Gen Ed Requirement)</b>	<b>3</b>
	<b>Gen Ed</b>	
	<b>Elective</b>	<b>1 (See A.S. Gen Ed Requirement)</b>
	<b>Total Credits</b>	<b>26</b>

### INTERMEDIATE COURSES

Course	Title	Credits
^A1 CET 2179C	A+ Concepts (Software)	3
^ * CET 2112C	Digital Systems I	3
* CET 2113C	Digital Systems II	3
^ * CET 2854	Wireless Networks	3
	<b>Total Credits</b>	<b>12</b>

### Cisco Specialization

Course	Title	Credits
M1, M2		
M4* CET 2792	Microsoft Windows Server 2003 Network	4
^ * EST 2220C	Introduction to Fiber Optics	3
M5* CET 1610C	Cisco Router Technology	4
M5* CET 2615C	Cisco Advanced Router Technology	4
M5* CET 2620C	Cisco Projects in Routing Design and Administration	4
^ * CET 2675	Voice Over IP	4
	Computer Engineering Technology	
	Electives	7
	<b>Total Credits</b>	<b>30</b>
	<b>Total Degree Credits</b>	<b>68</b>

### Microsoft Specialization

Course	Title	Credits
M1, M2		
M4* CET 2811	Microsoft Windows XP Professional	4
M1, M2		
M4* CET 2722	Microsoft Windows Server 2003 Environment	3
M1, M2		
M4* CET 2792	Microsoft Windows Server 2003 Network	4
M1, M2		
M4* CET 2793	Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure	4
M1, M2* CET 2794	Microsoft Windows Server 2003 Active Directory	4

Specialized courses may not be offered every session or on every campus.  
 + This course must be completed with a grade of C or better.  
 \* This course has a prerequisite; check description in Valencia catalog.  
 ^ These courses are common with the Electronics Engineering Technology degree.

# COMPUTER ENGINEERING TECHNOLOGY (NETWORKING)

M1,M2*	CET 2795	Designing Microsoft Windows Server 2003 Active Directory Infrastructure Computer Engineering Technology Electives	4 7
		<b>Total Credits</b>	<b>30</b>
		<b>Total Degree Credits</b>	<b>68</b>

## COMPUTER ENGINEERING TECHNOLOGY ELECTIVES

These courses may be used for Elective credit if not a Specialization requirement.

Course	Title	Credits
* CET 1600C	Cisco Networking Fundamentals	4
^ * CET 2675	Voice Over IP	4
^ * CET 2123C	Fundamentals of Microprocessors	3
A2* CET 2588	Network +	4
* CET 2784	Wide Area Networks	3
M1,M3		
* > CET 2810	Microsoft Exchange 2000 Server Implementation and Administration	4
M1,M3		
* > CET 2812	SQL Server 2000 System Administration	4
* CET 2880	Computer Forensics	4
* CET 2930	Selected Topics in Computer Engineering Technology	1-5
* CET 2942	Internship in Networking	1-4
* COP 2220	C Programming	3
* CTS 1120	Introduction to Network Security	3
* CTS 2433	SQL Server Database Design and Implementation	4
^ * EET 2330	Introduction to Transmission Lines	3
^ * EST 2220C	Introduction to Fiber Optics	3
* EST 1210	Introduction to Photonics	3
SLS 1303	Job Search	1

### NOTES:

<sup>1</sup> ENC 1210 Technical Communication is strongly recommended.

All specialized program courses are offered on the West Campus; some specialized courses are offered at other locations.

General Education courses are in bold print in the course listing.

This A.S. degree is transferable to UCF's regional campuses offering the B.A.S. degree. Check with UCF regional offices for their local campus offerings. The degree may also be transferable to B.A.S. programs offered by USF and DBCC. Check with USF and DBCC for acceptance of this degree.

Students will be required to take 36 credit hours of General Education courses to earn a Bachelor of Applied Science (B.A. S) degree from UCF.

To graduate from UCF's B.A.S. program, students will also have to fulfill the state's foreign language requirement which is as follows: Two years of the same high school foreign language or two semesters of the same college-level foreign language.

> This course can be used as an elective for MCSE Certification.

A1 This is a required course leading to A+ Certification.

A2 This is a required course leading to N+ Certification.

M1 This course will prepare the student for Microsoft Certified Professional (MCP) Certification.

M2 This is a required course leading to a Microsoft Certified Systems Engineer (MCSE) Certification.

M3 This course could be used as the required elective for MCSE or MCSA Certifications.

M4 This is a required course leading to a (MCSA) Microsoft Certified Systems Associate Certification.

M5 This is a required course leading to a Cisco Certified Network Associate (CCNA) Certification.

## Cisco Network Associate (CCNA)

### Technical Certificate

This Cisco certificate program provides the student with the skills necessary to work with traditional Cisco-based networks that predominately include local area network and wide area network routers and switches. The program also will prepare the student to take the Cisco Certified Network Associate (CCNA) certification exams.

### FOUNDATION COURSES

Course	Title	Credits
* CET 1610C	<sup>1</sup> Cisco Router Technology	4
* CET 2615C	Cisco Advanced Router Technology	4
* CET 2620C	Cisco Projects in Routing Design and Administration	4
	<b>Total Certificate Credits</b>	<b>12</b>

### NOTE:

All certificate courses are offered on the East, Osceola and West Campuses.

Specialized courses may not be offered every session or on every campus.

+ This course must be completed with a grade of C or better.

\* This course has a prerequisite; check description in Valencia catalog.

^ These courses are common with the Electronic Engineering degree.

# COMPUTER ENGINEERING TECHNOLOGY (NETWORKING)

## Microcomputer Repairer/Installer

### Technical Certificate

This certificate program prepares the student with excellent preparation for employment as a computer support specialist, help desk specialist, computer system analyst, and/or computer service representative. Students who complete this program will have the expertise needed to take CompTia certification A+ and Network+ examinations.

#### FOUNDATION COURSES

Course	Title	Credits
EET 1214C	Introduction to Engineering Technology	2
CET 2178C	A+ Concepts (Hardware)	3
CET 2179C	A+ Concepts (Software)	3
CET 2486C	Local Area Networks	3
	Microcomputer Repairer/Installer Electives	4
	<b>Total Certificate Credits</b>	<b>15</b>

#### MICROCOMPUTER REPAIRER/INSTALLER ELECTIVES

Course	Title	Credits
* CET 2588	Network+	4
* CET 2811	Microsoft Windows XP Professional	4
* CET 1600C	Cisco Networking Fundamentals	4
* CET 2854	Wireless Networks	3
* CET 2942	Internship in Networking	1

#### NOTE:

All certificate courses are offered on the West Campus; some courses are offered at other locations.

## Microsoft Systems Administrator (MCSA)

### Technical Certificate

This certificate program is designed to provide students with the skills necessary to implement, manage and troubleshoot existing Microsoft network and server 2003 environments. The program helps prepare students to take the Microsoft certification examinations, including the Microsoft Certified Professional (MCP), Microsoft Certified Systems Administrator (MCSA), and CompTia certification examinations.

#### FOUNDATION COURSES

Course	Title	Credits
CET 2178C	A+ Concepts (Hardware)	3
CET 2486C	Local Area Networks	3
* CET 2811	Microsoft Windows XP Professional	4
* CET 2722	Microsoft Windows Server 2003 Environment	3
* CET 2792	Microsoft Windows Server 2003 Network	4
	Microsoft Systems Administrator Elective(s)	4
	<b>Total Certificate Credits</b>	<b>21</b>

#### MICROSOFT SYSTEMS ADMINISTRATOR ELECTIVES

Course	Title	Credits
* CET 2810	Microsoft Exchange 2003 Server Implementation and Administration	4
* CET 2812	SQL Server 2000 System Administration	4
* CET 2588	Network+	4
CET 2179C	A+ Concepts (Software)	3

#### NOTES:

CET 2810 or CET 2812 or both CET 2588 and CET 2179C will satisfy the Microsoft elective requirement for the MCSA industry certification.

All certificate courses are offered on East and West Campuses; some courses are offered at other locations.

## Microsoft Systems Engineer (MCSE)

### Technical Certificate

This certificate program is designed to provide students with the skills necessary to install and maintain Windows 2003 operating systems. The program helps prepare students to take the Microsoft certification examinations, including the Microsoft Certified Systems Engineer (MCSE) examinations.

#### FOUNDATION COURSES

Course	Title	Credits
* CET 2722	Microsoft Windows Server 2003 Environment	3
* CET 2792	Microsoft Windows Server 2003 Network	4
* CET 2811	Microsoft Windows XP Professional	4
* CET 2793	Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure	4
* CET 2794	Microsoft Windows Server 2003 Active Directory	4
* CET 2795	Designing Microsoft Windows Server 2003 Active Directory Infrastructure	4
	Microsoft Systems Engineer Elective	4
	<b>Total Certificate Credits</b>	<b>27</b>

#### MICROSOFT SYSTEMS ENGINEER ELECTIVES

Course	Title	Credits
* CET 2810	Microsoft Exchange 2003 Server Implementation and Administration	4
* CET 2812	SQL Server 2000 System Administration	4

#### NOTE:

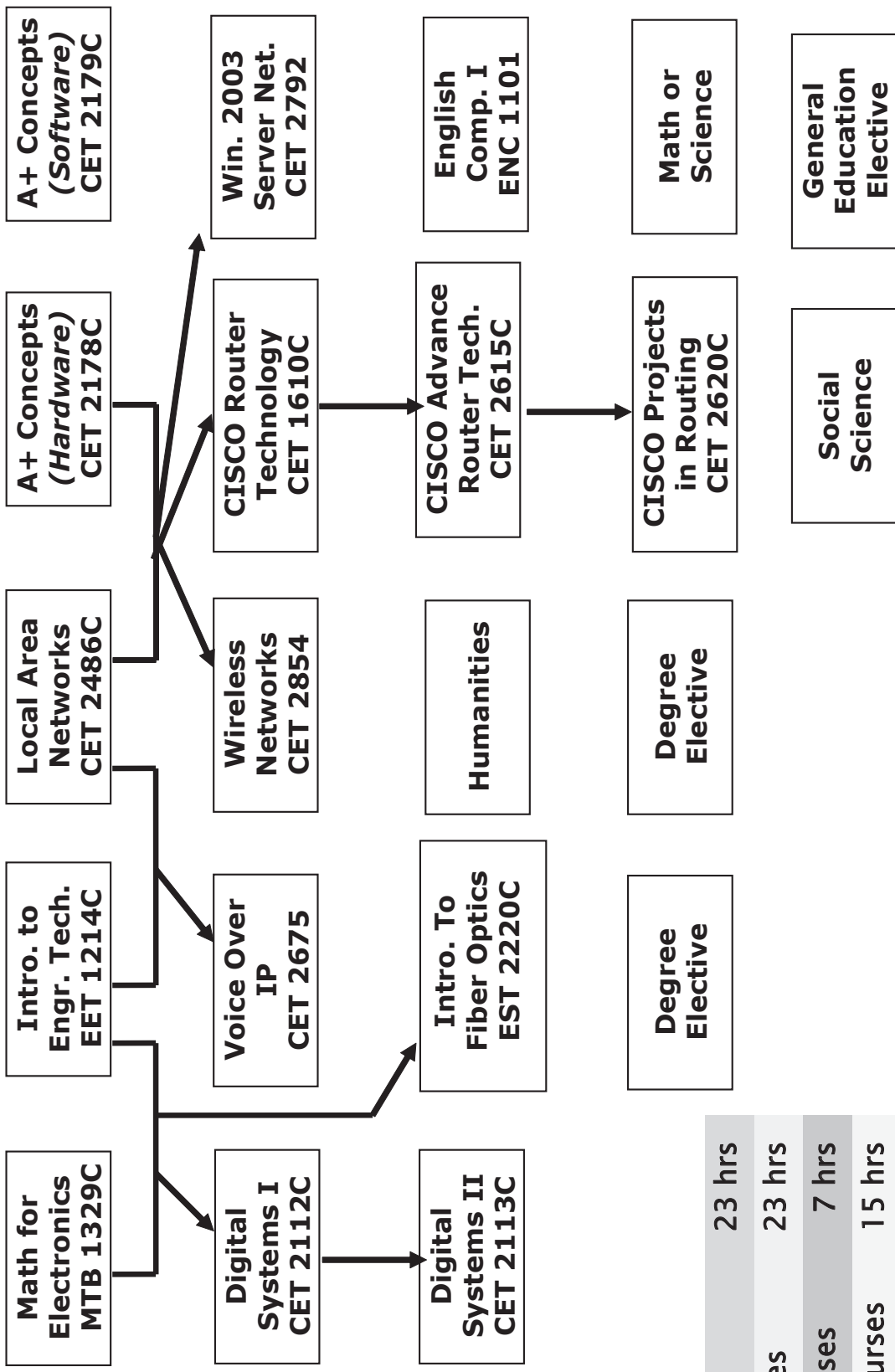
All certificate courses are offered on East and West Campuses; some courses are offered at other locations.

Specialized courses may not be offered every session or on every campus.  
 + This course must be completed with a grade of C or better.  
 \* This course has a prerequisite; check description in Valencia catalog.

# Department of Architecture, Engineering, and Technology

## Computer Engineering Technology

### CISCO Specialization



Core Courses	23 hrs
Upper Division Courses	23 hrs
Degree Electives Courses	7 hrs
General Education Courses	15 hrs
<b>TOTAL</b>	<b>68 hrs</b>

