

ENGINEERING TECHNOLOGY

Emphasis of this program is on practical skills for engineering technicians.

Career Opportunities

Cisco Certified Networking Associate (CCNA)
 Cisco Certified Design Associate (CCDA)
 Cisco Certified Networking Professional (CCNP)
 Microsoft Certified Professional (MCP)
 Microsoft Certified Systems Engineer (MCSE)
 Certified Electronics Technician (CET)
 Programmable Logic Devices Technician

Faculty

Full-Time

Alex Lynch

Part-Time

Richard Carmichael	Dirk DeKreek
Rodger Morris	Jess Sandoval
Albert Wolfkiel	

◆ Computer Networking

Associate in Science Degree and/or
 Certificate of Achievement*

Cisco Option	Units
ENGTR120 First Half of CCNA Prep	4
ENGTR121 Second Half of CCNA Prep	4
ENGTR142 A+ Certification Preparation	4
ENGTR127 Cisco Wireless Fundamentals	3
Total	15

Electives

Select at least 12 units from the following electives	Units
ENGTR110 Direct Current Electronics	4
ENGTR111 Alternating Current Electronics	4
ENGTR122 CCNP Routing	4
ENGTR123 CCNP Remote Access	4
ENGTR124 CCNP Switching	4
ENGTR125 CCNP Support	4
ENGTR130 Admin Microsoft Windows Pro	3
ENGTR131 Admin MS Windows Server	3
ENGTR144 Network+ Certification Prep	4
Electives	12
Total Units	27

◆ Engineering Technology

Associate in Science Degree and/or
 Certificate of Achievement*

Electrical Engineering Technology Option	Units
ENGTR110 Direct Current Electronics	4
ENGTR111 Alternating Current Electronics	4
ENGTR112 Digital Engineering	4
ENGTR113 Circuits Engineering	4
ENGTR114 Introduction to Programmable Logic Controllers	4
ENGTR115 Advanced Programmable Logic Controllers	4
Total Required Units	24

Electives	Units
Select at least 6 units from the following electives	
ENGTR120 First Half of CCNA Prep	4
ENGTR121 Second Half of CCNA Prep	4
ENGTR127 Cisco Wireless Fundamentals	3
ENGTR130 Admin Microsoft Windows Pro	3
ENGTR131 Admin MS Windows Server	3
ENGTR142 A+ Certification Prep	4
ENGTR144 Network+ Certification Prep	4
Electives	6
Total Units	30

*For Associate Degree students must complete an additional 30 units of General Education courses

(See your counselor to determine your required General Education courses)

Engineering Technology Courses

ENGTR098—Short Courses in Engineering Technology ½-10 units

Lecture/lab hours depending on unit formula.

Specialized topics designed to inform or update interested persons in various disciplines within the engineering technology industry. Length of course determines unit credit. Field trips may be required. Course may be taken four times. (2)

ENGTR110—Direct Current Electronics 4 units

2 hours lecture, 6 hours lab weekly

This course helps prepare students for the more rigorous study of direct current electronics found at four-year engineering schools. Students use various engineering techniques to design, draft, construct, test, and evaluate direct current circuits. This course also helps those seeking employment as electronic technicians. Field trips may be required.

Transfer credit: CSU

ENGTR111—Alternating Current Electronics 4 units

Prerequisites: ENGTR110.

2 hours lecture, 6 hours lab weekly

This course helps prepare students for the more rigorous study of alternating current electronics found at four-year engineering schools. Students use various engineering techniques to design, draft, construct, test, and evaluate alternating current circuits. This course also helps those seeking employment as electronic technicians. Field trips may be required.

Transfer credit: CSU

ENGTR112—Digital Engineering 4 units

2 hours lecture, 6 hours lab weekly

This course helps prepare students for the more rigorous study of digital electronics found at four-year engineering schools. Students will use various engineering techniques to design, draft, construct, test, and evaluate digital circuits. This course also helps those seeking employment as electronic technicians. Field trips may be required.

Transfer credit: CSU

ENGTR113—Circuits Engineering 4 units

Prerequisites: ENGTR111.

2 hours lecture, 6 hours lab weekly

This course helps prepare the student for the more rigorous study of circuits engineering found at four-year engineering schools. Students will use various engineering techniques to design, draft, construct, test, and evaluate electronic circuits. The course also helps prepare those seeking employment as engineering technicians. Field trips may be required.

Transfer credit: CSU

ENGT R114—Introduction to Programmable Logic Controllers **4 units**

Prerequisites: ENGT R111 or AC R021.

2 hours lecture, 6 hours lab weekly

A beginning course on the principles of how PLCs work. Course provides practical information about installing, programming, and maintaining PLC systems. Course is designed to help students acquire the necessary qualifications to work in the automation industry. Field trips may be required.

Transfer credit: CSU

ENGT R115—Advanced Programmable Logic Controllers **4 units**

Prerequisites: ENGT R114.

2 hours lecture, 6 hours lab weekly

In this second course on Programmable Logic Controllers, emphasis is on advanced programming, editing, and troubleshooting. Course is designed to help students acquire the necessary qualifications to work in the automation industry. Field trips may be required.

Transfer credit: CSU

ENGT R120—First Half of CCNA Prep **4 units**

3 hours lecture, 3 hours lab weekly

This course is offered by the Oxnard College Cisco Networking Academy. It provides instruction in computer basics, Local Area Networks (LANs), the 7-layer OSI model, cabling, and network topologies. This course also covers Wide Area Networks (WANs), router configuration, Cisco IOS images, TCP/IP Protocol Suite, Internet Protocol (IP) addressing, and routing protocols. This course along with ENGT R121 prepares students to take the Cisco Certified Networking Associate (CCNA) exam. ENGT R120 is a core course in the Computer Networking A.S. Degree track in the Engineering Technology Department. Field trips may be required.

Transfer credit: CSU

ENGT R121—Second Half of CCNA Prep **4 units**

Prerequisites: ENGT R120.

3 hours lecture, 3 hours lab weekly

This course is offered by the Oxnard College Cisco Networking Academy. This course provides instruction in the Open System Interconnection reference model and routing, LAN switching, VLANs, routing protocols, access control lists, and network management. It will also cover WANs, point-to-point protocol, ISDN, frame relay, and network management. This course along with ENGT R120 prepares students to take the Cisco Certified Networking Associate (CCNA) exam. This is a core course in the Computer Networking A.S. Degree track in Engineering Technology. Field trips may be required.

Transfer credit: CSU

ENGT R122—CCNP Routing **4 units**

Advisory: ENGT R121.

2 hours lecture, 6 hours lab weekly

This course provides the student with the knowledge to configure Cisco routers for advanced network deployment. The course also prepares students for the Cisco Routing exam. The Cisco Routing exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP). Field trips may be required.

Transfer credit: CSU

ENGT R123—CCNP Remote Access **4 units**

Advisory: ENGT R121.

2 hours lecture, 6 hours lab weekly

This course provides the student with the knowledge to configure remote access networking devices. The course also prepares students for the Cisco Remote Access Networks exam. The Cisco Remote Access Networks exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP). Field trips may be required.

Transfer credit: CSU

ENGT R124—CCNP Switching **4 units**

Advisory: ENGT R121.

2 hours lecture, 6 hours lab weekly

This course provides the student with the knowledge to configure multi-layer switched networks. The course also prepares students for the Cisco Switching exam. The Cisco Switching exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP). Field trips may be required.

Transfer credit: CSU

ENGT R125—CCNP Support **4 units**

Advisory: ENGT R121.

2 hours lecture, 6 hours lab weekly

This course provides the student with the knowledge to troubleshoot and repair various network problems. The course also prepares students for the Cisco Support exam. The Cisco Support exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP). Field trips may be required.

Transfer credit: CSU

ENGT R126—CCDA Preparation **4 units**

Prerequisites: ENGT R121.

2 hours lecture, 6 hours lab weekly

This course provides the student with the knowledge to design a computer network for a small to middle-sized business. This course also helps prepare the student to take the Cisco Certified Design Associate (CCDA) certification exam. Field trips may be required.

Transfer credit: CSU

ENGT R127—Cisco Wireless Fundamentals **3 units**

2½ hours lecture, 1½ hours lab weekly

This course is offered by the Oxnard College Cisco Networking Academy. This is an introductory course in wireless networking technology. At the completion of this course students will have the ability to design, implement, administer, and troubleshoot a Wireless Local Area Network (WLAN) by configuring client adapters, access points, and wireless bridges. This is a core course in the Computer Networking A.S. Degree track in the Engineering Technology Department. Field trips may be required.

Transfer credit: CSU

ENGT R130—Administering Microsoft Windows Professional **3 units**

2½ hours lecture, 1½ hours lab weekly

This course provides in-depth, hands-on introduction to the latest Microsoft Windows Professional operating system administration including creating and administering user and group accounts, network resources security, network printer server set-up and administration, resources and events auditing, and backup procedures. This is one of the two required core courses to become a Microsoft Certified Professional (MCP) and prepares students for related Microsoft exam. This course is an elective in the Computer Networking A.S. Degree track in the Engineering Technology Department. Field trips may be required.

Transfer credit: CSU

ENGT R131—Administering Microsoft Windows Server **3 units**

2½ hours lecture, 1½ hours lab weekly

This course provides in-depth, hands-on introduction to the latest Microsoft Windows Server operating system administration including configuring server roles, maintaining server availability with clusters, planning a TCP/IP network infrastructure, and deploying security features. This is one of the two required core courses to become a Microsoft Certified Professional (MCP) and prepares students for related Microsoft exam. This course is an elective in the Computer Networking A.S. Degree track in the Engineering Technology Department. Field trips may be required.

Transfer credit: CSU

**ENGT R132—Administering Microsoft Windows 2000
Infrastructure 4 units**

2 hours lecture, 6 hours lab weekly

This course prepares the student to set up and support a Windows 2000 Network Infrastructure. It also helps prepare students for Microsoft's certification exam 70-216, "Implementing and Administering a Microsoft Windows 2000 Network Infrastructure." This exam is one of Microsoft's required core exams for those wishing to become a Microsoft Certified Systems Engineer (MCSE). Field trips may be required.

Transfer credit: CSU

**ENGT R133—Administering Microsoft Windows 2000
Directory Services 4 units**

2 hours lecture, 6 hours lab weekly

This course prepares the student to set up and support the Windows 2000 Directory Services. It also helps prepare students for Microsoft's certification exam 70-217, "Implementing and Administering Microsoft Windows 2000 Directory Services." This exam is one of Microsoft's required core exams for those wishing to become a Microsoft Certified Systems Engineer (MCSE). Field trips may be required.

Transfer credit: CSU

**ENGT R134—Designing Microsoft Windows 2000
Directory Services 4 units**

2 hours lecture, 6 hours lab weekly

This course prepares the student to design a Windows 2000 Directory Services. It also helps prepare students for Microsoft's certification exam 70-219, "Designing Microsoft Windows 2000 Directory Services." This is one of the seven exams needed for anyone wishing to become a Microsoft Certified Systems Engineer (MCSE). Field trips may be required.

Transfer credit: CSU

**ENGT R135—Designing Microsoft Windows 2000
Security 4 units**

2 hours lecture, 6 hours lab weekly

This course prepares the student to design security for a Windows 2000 directory network. It also helps prepare students for Microsoft's certification exam 70-220, "Designing Microsoft Windows 2000 Security." This is one of the seven exams needed for anyone wishing to become a Microsoft Certified Systems Engineer (MCSE). Field trips may be required.

Transfer credit: CSU

**ENGT R136—Designing a Microsoft Windows 2000
Network 4 units**

2 hours lecture, 6 hours lab weekly

This course prepares the student to design a Windows 2000 network. It also helps prepare students for Microsoft's certification exam 70-221, "Designing a Microsoft Windows 2000 Network." This is one of the seven exams needed for anyone wishing to become a Microsoft Certified Systems Engineer (MCSE). Field trips may be required.

Transfer credit: CSU

ENGT R141—Electronic Soldering Techniques 4 units

2 hours lecture, 6 hours lab weekly

This course prepares the student to identify electronic components, read color codes, remove and insert electronic components, and repair printed circuit boards. All electronic technicians need these skills and this is a required course for the Engineering Technology (Electronics) Certificate and Degree Programs. Field trips may be required.

Transfer credit: CSU

ENGT R142—A+ Certification Preparation 4 units

2 hours lecture, 6 hours lab weekly

This course provides instruction in computer repair and upgrade. This course also helps prepare students to take the two required exams for the Computing Technology Industry Association (CompTIA) A+ certification. Field trips may be required.

Transfer credit: CSU

ENGT R143—Introduction to LINUX 4 units

2 hours lecture, 6 hours lab weekly

In recent years LINUX operating systems have become a low-cost alternative to the various Microsoft Windows operating systems. This introductory course teaches students to locate, install, and use LINUX operating systems. Field trips may be required.

Transfer credit: CSU

ENGT R144—Network+ Certification Preparation 4 units

2 hours lecture, 6 hours lab weekly

This course provides instruction in computer networking. This course also prepares students to take the CompTIA Network+ certification exam. Field trips may be required.

Transfer credit: CSU

**ENGT R198—Short Courses in Engineering
Technology 1½-6 units**

Lecture and/or lab hours as required by unit formula

Courses and/or workshops in selected areas of Engineering Technology are developed to meet specific needs of the industry as requested or required. Field trips may be required.

Transfer credit: CSU

ENGLISH

Career Opportunities

B.A. Level

(Most careers require a bachelors degree)

Copywriter	Copy Editor
Editor	Journalist
Report Writer	Proofreader
Novelist	Playwright

Faculty

Full-Time

Elissa Caruth	Gaylene Croker
Patricia Dozen	Lynn Fauth
James Merrill	Jeannette Redding
Matilde Sánchez	Shelley Savren
Shant Shahoian	Vernon Simmen
Karen Sutton	Evangeline Wilkes-Vacca
Anthony Rodriguez	Beverley Young

Part-Time

Jack Ahrens	Elaine Alarcon-Totten
Betty Benson	Hector Betancourt
Eric Boys	Deborah DeVries
W. Kay Doyle	Kay Hawkins
Elizabeth Hermes	Cristina Herrera
Jacqueline Hewitt	Margaret M
Patrick Newton	Betty Patten
Patricia Scroggins	Peggy Smith
Guadalupe Villalpando	

◆ English

Associate in Arts Degree

Required Courses:	Units
ENGL R101 College Composition	4
ENGL R102 Critical Thinking: Composition	3
ENGL R104 English Literature I	3
ENGL R105 English Literature II	3
ENGL R107 American Literature I	3
OR	
ENGL R108 American Literature II	3
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Additional Required Courses:

	Units
Complete six units from the following:	
SPCH R101 Introduction to Oral Communication	3
JOUR R101 News Writing and Reporting	3
OR	
JOUR R102 Intermediate News Writing and Reporting	3
Any other English course numbered 100 or above	3
	<hr/> 6
Total Required Units	21

Only three units of Journalism may be applied to the major.

English Courses

ENGL R012—Basic Composition II 3 units

Advisory: Satisfactory grade in ENGL R066.
3 hours lecture weekly

Spelling, grammar, punctuation, sentence structure, diction vocabulary, transitional devices, parallelism, paragraphing techniques, and theme organization will be taught and learned through numerous and varied writing assignments emphasizing techniques for improving composition. Students will receive much individual help; a diagnostic-prescriptive approach will be used. Not applicable for degree credit. Course may be taken two times.

ENGL R020—Vocational English Lab 1 unit

3 hours lab weekly

Vocational students are more job-ready when able to write English and converse in a way that is clearly understood by their associate workers, supervisors, and customers. Likewise, ability to read English makes the vocational student more employable. Course designed to introduce non-English speaking students to use of written and oral language in their job setting. Not applicable for degree credit. Course may be taken two times. (1)

ENGL R022—Vocational English 1 unit

3 hours laboratory weekly

Course teaches the essential skills of reading, listening and notetaking, test-taking, writing, and oral communication within context of student's vocational program. Not applicable for degree credit. Course may be taken two times. (1)

ENGL R030—English Skills 1/2-3 units

Lecture and/or lab hours as required by unit formula

Self-instructional modules in study and communication skills. Students may enroll at any time; units will be awarded on the basis of specific module selected, time devoted, work completed, and progress made. Not applicable for degree credit. Asterisked (*) modules may be repeated for credit up to maximum units shown. (1)

ENGL R030CD—Comprehension Development	1 unit
ENGL R030E—Taking Essay Tests	1 unit
ENGL R030G*—Skills Brush-Up	1/2-1 1/2 units
ENGL R030K—Study Skills	1 unit
ENGL R030L—Using Library Resources	1 unit
ENGL R030N—Notetaking	1/2 unit
ENGL R030P—Phonics	1 unit
ENGL R030R—Speed Reading	1 unit
ENGL R030S*—Spelling	1-2 units
ENGL R030V*—Vocabulary	1-2 units
ENGL R030W—Writing Resumes	1 unit
ENGL R030Y—Tactics in Reading	1 unit

ENGL R030T—Techniques of Tutoring 1 unit

1 hour lecture weekly

Course provides background for students to become effective as tutors of a special subject across the curriculum. Interpersonal skills, effective tutoring techniques, available materials and equipment and how to use them will be covered. Designed for anyone who plans to or is tutoring. Approach to the topic studied is to improve effectiveness of the tutoring sessions in all subject areas. (2)

ENGL R056—Reading Skills 4 3 units

Advisory: ESL R054 or ENGL R054.

3 hours lecture weekly

This course is designed for students who want to prepare themselves for content-area reading and study skills and/or for low-advanced students of English as a second language who want to prepare themselves for study skills and content area reading. This course will introduce critical thinking through rhetorical patterns of reading. Other topics include inferential comprehension, study-reading techniques (SQ3R), time relationships, e.g. chronological order, and research techniques. Not applicable for degree credit. Course may be taken two times. (2)

ENGL R066—Grammar/Writing 4 3 units

Prerequisites: ESL R064 or ENGL R064

2 hours lecture, 3 hours lab weekly

Course is designed primarily to instruct the low-advanced ESL learner or native speaker of English desiring instruction in the forms and usage of compound and complex sentence structure and other grammar points focusing on grammar, but applying it to writing, reading, speaking and listening. Not applicable for degree credit. Course may be taken two times. (2)