

## Certificate of Achievement Requirements

Complete all department requirements for the certificate with a cumulative grade point average (GPA) of 2.0 or better. Candidates for a Certificate of Achievement are required to complete at least 20% of the department requirements through SBCC.

### Department Requirements (Total Department Units: 41-42)

<i>Current Course No.</i>	<i>Previous Course No.</i>	<i>Title</i>	<i>Units</i>	<i>Institution &amp; Course No.</i>	<i>Grade</i>	<i>Units (s/q)</i>	<i>Term</i>
• CIS 201.....	(none).....	UNIX/Linux System Administration <b>OR</b> .....	4.0	_____	_____	_____	_____
CIS 206 .....	(none).....	MS Windows Server System Administration <b>OR</b> .....	4.0	_____	_____	_____	_____
CIS 213 .....	(none).....	MS Exchange Server Administration <b>OR</b> .....	3.0...	_____	_____	_____	_____
CIS 219 .....	(none).....	VMWare vSphere System Administration .....	3.0...	_____	_____	_____	_____
• CNEE 101 .....	(ECT 101).....	Intro. to Computer Network Technology.....	3.0	_____	_____	_____	_____
• CNEE 102 .....	(ECT 220/MAT 160).....	Managing & Maintaining Computer Hardware-A+ ...	3.0	_____	_____	_____	_____
• CNEE 106 .....	(ECT 225/MAT 162).....	Telecommunications and WAN.....	3.0	_____	_____	_____	_____
• CNEE 110 .....	(none).....	Networking Essentials .....	3.0	_____	_____	_____	_____
• CNEE 112 .....	(ECT 220/MAT 160).....	Managing & Maintaining Computer Software-A+.....	3.0	_____	_____	_____	_____
• CNEE 120 .....	(none).....	Fundamentals of Network Security.....	3.0	_____	_____	_____	_____
• CNEE 124 .....	(none).....	Internetworking with Tcp/Ip .....	3.0	_____	_____	_____	_____
• CNEE 125* ...	(none).....	CCNA I: Intro to Switching and Routing .....	5.0	_____	_____	_____	_____
• CNEE 126+ ...	(none).....	CCNA II: Adv Routing & Switching & Wireless .....	5.0	_____	_____	_____	_____
• CNEE 146 .....	(none).....	Firewalls and VPNs .....	4.0	_____	_____	_____	_____
• CNEE 206 .....	(none).....	MS Windows Network Infrastructure.....	3.0	_____	_____	_____	_____

\* Students who completed CNEE 131 and 132 are exempt from taking CNEE 125.

+ Students who completed CNEE 133 and 134 are exempt from taking CNEE 126.

Recommended Course Sequence: First semester: CNEE 101, 102, 106. Second semester: CNEE 110, 112, 124, 125. Third Semester: CNEE 120, 126. Fourth semester: CNEE 146, 206, CIS 206.

### Additional Program Information

For further information, contact the Counseling Center, 965-0581, Ext. 2285, or Angel Cárdenas, Department Chair, Ext. 2753.

**Associate Degrees and Certificates of Achievement (In alphabetical order) - For a complete list of programs of study (associate degrees, certificates, skills competency awards and department awards) and requirements, go to [http://www.sbcc.edu/apply/degrees\\_certificates.php](http://www.sbcc.edu/apply/degrees_certificates.php).**

Accounting (AS)  
 Accounting/Assistant Bookkeeper IV (C)  
 Administration of Justice (AA/AS/C)-3 emph. avail (AS&C), 1(AA)  
 Administration of Justice for Transfer (AS-T)  
 Alcohol and Drug Counseling (AA/C)  
 American Sign Language (AA)  
 Animation and Gaming (AA/C)  
 Anthropology (AA)  
 Anthropology for Transfer (AA-T)  
 Applied Photography (AA/C)  
 Art (AA) - 2 emphases available  
 Art History for Transfer (AA-T)  
 Associate Child Care Teacher (C)  
 Automotive Services & Technology (AS/C)

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Biological Sciences (AA)  
 Black Studies (AA)  
 Business Administration (AA/C) – 3 emphases available for AA, 2 for C  
 Business Administration for Transfer (AS-T)

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Cancer Information Management (AS/C)  
 Chemistry (AA)  
 Chicano Studies (AA)  
 Commercial Music (C)  
 Communication (AA) - 2 emphases available  
 Communication Studies for Transfer (AA-T)  
 Computer App. & Office Mgmt (AS/C) - 2 emphases available  
 Computer Information Systems (AS) – Emph. in System Admin. available  
 Computer Network Engineering (AS/C)  
 Computer Science (AS/C)  
 Construction Technology (AS/C)  
 Cosmetology (AS/C)  
 Creative Writing (C) – 2 emphases available  
 Culinary Arts (AS/C)

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Database Programming and Applications Development (C)  
 Diagnostic Medical Sonography (C)  
 Diversity Issues in ECE (C)  
 Drafting/CAD (AS/C)

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Early Childhood Education (AS/C)  
 Early Childhood Education for Transfer (AS-T)  
 Economics (AA)  
 Economics for Transfer (AA-T)  
 Elementary Teacher Education (AA-T)  
 Engineering (AA/AS)  
 English (AA)  
 English for Transfer (AA-T)  
 Environmental Horticulture (AS/C) - 4 emphases available for AS, 1 for C  
 Environmental Studies (AA)  
 Ethnic Studies (AA)

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Film Production (AA)  
 Film and Media Studies (AA)  
 Finance (AA/C)  
 French (AA)

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Geography (AA)  
 Geography for Transfer (AA-T)  
 Geological Sciences (AS)  
 Geology for Transfer (AS-T)  
 Global Studies (AA)  
 Graphic Design & Photography – Graphic Design Conc. (AA/C)

Health Information Technology (AS)  
 Healthy Aging (AA)  
 History (AA)  
 History for Transfer (AA-T)  
 Honors (C/C with highest honors) – 2 emphases available  
 Hospitality (AS/C)  
 Infant/Toddler Development (C)  
 Interior Design (AA/C)  
 International Business (AA/C)  
 Introduction to Graphic Design (C)

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Journalism (AA/C)  
 Journalism for Transfer (AA-T)

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Kinesiology for Transfer (AA-T)

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Law & Society (AA) - Emphasis in Criminal Justice available  
 Liberal Arts (AA) – Emphasis in Biomedical Sciences  
 Liberal Arts & Sciences (AA) – 3 emphases available  
 Liberal Studies (AA) – Emphasis in Education

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Marine Diving Technician (AS/C)  
 Marketing (AA/C)  
 Mathematics (AA)  
 Mathematics for Transfer (AS-T)  
 Media Arts (AA/C)  
 Medical Coding Specialist (C)  
 Middle East Studies (AA)  
 Music (AA)

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Native American Studies (AA)  
 Natural History (AA)  
 Nursing - ADN (AS)

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PC Support/Network Management (C)  
 Philosophy (AA)  
 Philosophy for Transfer (AA-T)  
 Physical Education (AA) – Emphasis in Athletic/Personal Fitness avail.  
 Physics (AA/AS)  
 Physics for Transfer (AS-T)  
 Political Science (AA)  
 Political Science for Transfer (AA-T)  
 Post-Professional Practice in ADC (C)  
 Psychology (AA)  
 Psychology for Transfer (AA-T)

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Radiography (AS)  
 Real Estate (AS/C)

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School-Age Care (C)  
 Sociology (AA)  
 Sociology for Transfer (AA-T)  
 Spanish (AA)  
 Spanish for Transfer (AS-T)  
 Studio Arts for Transfer (AA-T)

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Theatre Arts (AA) - 3 emphases available  
 Theatre Arts for Transfer (AA-T)  
 Transfer – CSU General Education Breadth Pattern (C)  
 Transfer – IGETC (C)

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Vocational Nursing (AS/C)

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Wastewater Technology Education (C)  
 Water Technology Education (C)

**Key: (AA)=Associate in Arts; (AA-T)=Associate in Arts for Transfer; (AS)=Associate in Science; (AS-T)= Associate in Science for Transfer; (C)=Certificate of Achievement**



**Santa Barbara City College**

# Computer Network Engineering

**2017-18**

## Certificate of Achievement in Computer Network Engineering

The certificate in Computer Network Engineering is a program for those wishing to enter the specialized field of computer network design and support. Students may obtain the certificate as an intermediate step prior to receiving the A.S. Degree.

## Careers in Computer Network Engineering

Computer Network Engineering is a diverse and expanding field which leads to careers that include: telecommunications/data communications technician, LAN/WAN designer, and LAN/WAN support.

***SBCC: Your Open Door to Educational Excellence***