

Information Technology, Business & Personal Services

GUIDED PATHWAY: NETWORKING TECHNOLOGIES: CISCO-RED HAT LINUX ADMINISTRATION (Certificate, AAS Degree)

Computer Technology Department



This template provides information for students interested in pursuing a career in Networking Technologies. It does not represent a contract, nor does it guarantee course availability. Completing this pathway will earn students a Computer Information Systems, Networking Technologies with a Specialization in CISCO-RedHat Linux Administration, Associate of Applied Science.

The Networking Technologies curriculum incorporates instruction in the areas of general network design, CISCO technology, Microsoft Server administration technology, server virtualization technology, and network administration in Red Hat Linux. The Computer Technology Department is a Microsoft, CISCO, and Red Hat Linux Academy. This distinction allows the program the privilege of incorporating CISCO (CCNA), Microsoft (Server), and Red Hat Linux certification topics throughout its curriculum. Courses required to complete the Associate of Applied Science Degree (D) and Networking Technologies Certificate I (C1) and Certificate II (2) are noted below. The Network Technologies program offers an Occupational Skills Award (OSA) that is a component of the Certificate I. *All CIS courses require a grade of "C" or better.*

COLLEGE READINESS REQUIREMENTS (only for the AAS)

Enrolling in one or more courses may be necessary if assessment activities and previous academic experiences indicate a need for additional knowledge and skills:

READING & WRITING PLACEMENT	MATH PLACEMENT	ENGLISH LANGUAGE PROFICIENCY
TSI MET: YES NO IF NO, ADVISOR INSERT COURSE(S) NEEDED <input type="checkbox"/> INRW _____ <input type="checkbox"/> OTHER: _____	TSI MET: YES NO IF NO, ADVISOR INSERT COURSE(S) NEEDED <input type="checkbox"/> DEV MATH _____ <input type="checkbox"/> OTHER: _____	TSI MET: YES NO IF NO, ADVISOR INSERT COURSE(S) NEEDED <input type="checkbox"/> ESOL _____ <input type="checkbox"/> OTHER: _____

Exemptions/waivers may exist. Speak with an academic advisor regarding placement in college readiness courses and your ability to enroll in core academic coursework.

SEMESTER BY SEMESTER MAP FOR FULL-TIME STUDENTS²

D	C2	C1	SEMESTER 1	ACTION ITEMS
◆	◆	◆	ITSC 1405 – Introduction to PC Operating Systems	<input type="checkbox"/> Meet with your advisor to confirm academic and career goals before the end of the semester. <input type="checkbox"/> Meet with a career advisor or instructor to research your career options and opportunities for job shadowing. <i>Apply for the 1-Semester Certificate (C2) Completion</i>
◆	◆	◆	ITNW 1425 – Fundamentals of Networking Technologies	
◆	◆	◆	ITSY 1400 – Fundamentals of Information Security	
◆	◆	◆	ITSE 1429 – Programming Logic & Design - Python	

TOTAL SEMESTER CREDIT HOURS: 16

D	C2		SEMESTER 2	ACTION ITEMS
◆	◆		ITCC 1414 – CCNA 1: Introduction to Networks	<input type="checkbox"/> Meet with your advisor to file and official degree plan, confirm or update your academic/career path and program of study. <i>Apply for the 1-Year Certificate (C1) Completion</i>
◆	◆		ITNW 1316 – Network Administration I	
◆	◆		ITSC 1358 – UNIX System Administration I	
◆	◆		ENGL 1301 – Composition I (C)	

TOTAL SEMESTER CREDIT HOURS: 13

D			SUMMER SESSION I	SUMMER SESSION II
◆			Elective – Language, Philosophy and Culture/Creative Arts Elective (C)	Elective – Mathematics Elective (C)

TOTAL SEMESTER CREDIT HOURS: 6

D			SEMESTER 3	ACTION ITEMS
◆			ITCC 1444 – CCNA 2: Switching Routing & Wireless Essentials	<input type="checkbox"/> Meet with a career advisor or coach for assistance in preparing for job search.
◆			ITNW 2305 – Network Administration II	
◆			ITSC 1347 – UNIX System Administration II	
◆			ELECTIVE – American History/Government/Political Science/Social and Behavioral Science Elective (C)	

TOTAL SEMESTER CREDIT HOURS: 13

D			SEMESTER 4	ACTION ITEMS
◆			ITCC 2420 – CCNA 3: Enterprise Networking, Security, and Automation	After reviewing your degree plan and program of study apply for graduation. <input type="checkbox"/> Meet with your advisor to apply for the A.A.S. Sign up for commencement
◆			ITSC 2281 – Cooperative Education – Computer and Information Sciences, General	
◆			ITSY 2359 – Security Assessment and Auditing (Capstone) ³	
◆			ELECTIVE – Speech Elective (C)	

TOTAL SEMESTER CREDIT HOURS: 12

AAS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS/PATHWAY TOTAL: 60 SEMESTER CREDIT HOURS

1. Degree plans may change in later catalogs. Be sure to consult with your advisor if following an older degree plan.
 2. Students must earn at least 25% of the program credit hours (15 hours) through instruction by Laredo College.
 3. CAPSTONE Course: The learning experience in this course involves consolidation of all program skillsets to reinforce program curricula.
 (C) This course is included in the LC Core, if core complete, credits transfer to any public college or university in Texas.

Certification and Licensure Information

CompTIA Network +

Cisco Certified Network Associate (CCNA)

Career Information

Common Job Titles

Network and Computer Systems Administrators

Computer Support Specialists

Computer Network Architects

Regional Labor Market Information

Computer network architects design and build data communication networks, including local area networks (LANs), wide area networks (WANs), and Intranets. Most computer network architects work full time. Some work more than 40 hours per week. Most computer network architects have a bachelor's degree in a computer-related field and experience in a related occupation, such as network and computer systems administrators. The median annual wage for computer network architects was \$112,690 in May 2019. Employment of computer network architects is projected to grow 5 percent from 2019 to 2029, faster than the average for all occupations. Demand for computer network architects will increase as firms continue to expand their information technology (IT) networks.

Source: <https://www.bls.gov/ooh/computer-and-information-technology/computer-network-architects.htm>

Career and labor market research tools

(see Quick Reference Guide Bureau of Labor Statistics: <http://www.bls.gov/ooh/>, O*NET: <https://www.onetonline.org/>)

Career Resources: Students are encouraged to consult with their area of study advisor for additional career assistance. The above information is provided as a guide and reference tool for occupations related to this program. This is not a guarantee of job placement in any of these occupations after successful completion of an LC program. The common job titles listed are representative titles and are provided for career research. These are not the only occupations possible in this area of study.

Transfer Information

The Associate of Applied Science prepares students to directly enter the workforce; however, a Bachelor of Applied Arts and Sciences (BAAS) or Bachelor of Technology (BAT) degree can further a student's knowledge and probability for employment success. Baccalaureate degrees must meet general education requirements and completion of upper level courses.

Transfer Guides: The universities listed here do not constitute a Laredo College endorsement. Transfer course evaluations and determination of which courses will count toward a Bachelor's degree are made by the receiving transfer institution.

Texas A&M University @ San Antonio: <https://www.tamusa.edu/>

South Texas College: <https://www.southtexascollege.edu/>

Western Governors University: <https://partners.wgu.edu/Pages/Transfer.aspx?iid=340>

Additional Transfer Resources: Students are encouraged to consult with a faculty advisor, area of study advisor, and/or their chosen transfer institution to ensure courses taken at LC will apply toward their bachelor's degree program.