

Cyber Security & Network Administration

ASSOC OF APPLIED SCIENCE

Major code: 2066
Department: Business and Computer Information
Chair: Kilee Saldivar
Advising: Sean Thompson 541-881-5978

PROGRAM OVERVIEW

This program prepares students for work in a variety of computer related careers as a desktop administrator, entry level network engineer, entry level systems engineer or entry level SQL support specialist. This degree is designed for students wishing to directly enter the workforce.

PROGRAM/DISCIPLINE OUTCOMES

Student who complete this area of study will be prepared to:

- Describe communication strategies and professional behaviors needed to support end-users, work with peers and clients to complete business practice analyses
- Prepare proposals for IT projects
- Develop a plan for finding and maintaining a career as an IT professional.
- Students will be prepared for introductory industry certification exams.
- Articulate the principles and best practices of cybersecurity, analyze an organization's security vulnerabilities, and implement technical and procedural solutions to harden and protect an organization's computer and network infrastructure.
- Demonstrate an introductory proficiency with commonly used database and website development tools that would prepare the student to provide initial support of these systems for a small-to medium-sized organization.
- Plan, implement, administer and support the network servers to help a small-to mid-sized organization achieve its business goals and objectives.
- Students will be able to distinguish between, and articulate some of the benefits and challenges of, on premise and cloud-based server infrastructure designs.
- Configure and deploy network switching and routing equipment needed to appropriately segment and control local area, wide area and wireless networks.

REQUIRED COURSES (83 CREDITS)

Courses are listed in suggested sequence.

YEAR 1

<u>COURSE #</u>	<u>COURSE TITLE</u>	<u>CREDITS</u>
- PSY 101	Psychology of Human Relations Or BA 204 Teamwork Dynamics.....	3
- CIS 100	INTRO TO PC NETWORK & CYBERSECURITY.....	4
- CIS 101	INTRODUCTION TO NETWORK.....	4
- CIS 102	ROUTING & SWITCHING ESSENTIALS.....	4
- CIS 110	INFORMATION TECHNOLOGY ESSENTIALS I.....	3
- CIS 140	INTRO TO OPERATING SYSTEMS.....	4
- CS 194	WEB ESSENTIALS.....	3
- CS 195	WEB DESIGN.....	3
- CS 240	SERVER OPERATING SYSTEMS 1.....	4
- CS 241	SERVER OPERATING SYSTEMS 2.....	4
- HDEV 112	FRESHMAN SEMINAR.....	1
- MATH 060	BEGINNING ALGEBRA I.....	5
- WR 115	INTRO TO COLLEGE WRITING.....	4

YEAR 2

<u>COURSE #</u>	<u>COURSE TITLE</u>	<u>CREDITS</u>
- CS 280	- COOP WK EXP.....	3
- COM 111Z	-PUBLIC SPEAKING (4 credits) or SP 219- SMALL GROUP DISCUSSION (3 credits).....	3
- CIS 122	INTRO SQL & DATABASE DEVELOPMENT.....	4
- CIS 123	INTER SQL & DATABASE DEVELOPMENT.....	4
- CIS 283	CYBERSECURITY FOUNDATION & GATEWAY.....	4
- CIS 284	CYBERSECURITY ESSENTIALS.....	4
- CIS 285	CYBERSECURITY INFRASTRUCTURE CONFIG.....	4
- CIS 297	CAPSTONE PROJECT II.....	3
- CS 160	ORIENTATION TO PROGRAMMING.....	4
- CS 242	SERVER OPERATING SYSTEMS 3.....	4

Total number of credits..... 90

ELECTIVES (7 CREDITS)

Electives