INFORMATION TECHNOLOGY SPECIALIST

College of Rural and Community Development
Community and Technical College
907-455-2800
www.ctc.uaf.edu/its/

Certificate; A.A.S. Degree

Minimum Requirements for Certificate: 30 credits;
for A.A.S. Degree: 60 credits

The information technology specialist certificate and associate programs teach students how to use, support, implement, and troubleshoot the computer and information technology systems found in educational, governmental and corporate settings.

The certificate program focuses on foundation-level support skills required to effectively use and troubleshoot computer and information technology systems. Students completing the certificate program will be prepared for entry-level IT positions and to continue their education in the information technology specialist A.A.S. degree program.

The A.A.S. degree program prepares individuals to implement, support, and troubleshoot computer and information technology systems and obtain employment as an IT professional. Associate degrees in computing technology, network and cybersecurity, and network and system administration are offered.

Students entering either the certificate or A.A.S. degree program should meet with a faculty advisor to discuss program content requirements and develop an education plan that matches the current skills and goals of the student.

This degree program is delivered collaboratively within the UA system.

Certificate Program

1. Complete the general university requirements (page 117).
2. Complete the certificate requirements. (See page 117. As part of the certificate requirements, complete ABUS F154 or ANTH F100X/SOC F100X for the human relations requirement.)
3. Complete the following program (major) requirements*:
   CITS F203—Information Technology Support Fundamentals.....4
   CITS F204—Introduction to Network Support and Administration.....3
   CITS F212—Server Operating Systems.....3
   CITS F261—Computer and Information Security.....3
4. Complete 8-9 credits from the following or program coordinator-approved courses:*
   CIOS F128—Using and Configuring PC Operating Systems.....3
   CIOS F130—Microcomputer Word Processing..... 1-3
   CIOS F135—Microcomputer Spreadsheets..... 1-3
   CIOS F150—Computer Business Applications..... 1-3
   CIOS F189—Microcomputer Applications: Topics.....1-3**
   CIOS F233—Desktop Publishing..... 1-3
   CIOS F240—Microcomputer Databases..... 1-3
   CIOS F255—Microcomputer Graphics..... 1-3
   CIOS F258—Digital Photography..... 1-3
   CITS F201—Microcomputer Operating Systems Support..... 1-3
   CITS F219—Microcomputer Operating Systems: Topics.....1-4**
   CITS F220—Implementing Internet Tools and Technologies.....3
   CITS F221—Graphics and Multimedia for the Web.....3
   CITS F222—Website Design.....3
   CITS F240—System and Network Services Administration.....3
   CITS F241—Networking and LAN Infrastructure Basics 4
   CITS F242—Routers and Routing Concepts.....4
   CITS F262—Cybersecurity Defense and Countermeasures.....3
   CITS F263—Network Security Penetration Testing.....3
   CITS F265—Directory Services Administration 3
   CITS F282—IT Troubleshooting Skills..... 1-3
   CITS F289—Information Technology: Topics..... 1-3
5. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: operating systems, hardware, and network support and troubleshooting.***
6. Minimum credits required 30

Major — A.A.S. Degree

Concentrations: Computing Technology, Network and Cybersecurity, and Network and System Administration

1. Complete the general university requirements (page 118).
2. Complete the A.A.S. degree requirements. (See page 118. As part of the A.A.S. degree requirements, complete DEVM F105 or any course at the F100 level or above in mathematical sciences (computer science, math or statistics) for the computation requirement, and ABUS F154, ANTH F100X/SOC F100X for the human relations requirement.)
3. Complete the following program (major) requirements:*
   CITS F204—Introduction to Network Support and Administration.....3
   CITS F205—Introduction to Microcomputer Programming (1-3)
   or CS F103—Introduction to Computer Programming (3)
   or CS F201—Computer Science I (3).....3
   CITS F212—Server Operating Systems.....3
   CITS F261—Computer and Network Security 3
   CITS F281—Professional Practice in IT.....3
   CITS F284—Independent Project (1-3)
   or CITS F285—Cooperative Work Experience (3).....3
4. Complete an additional 6 credits from CIOS, CITS or CS electives.....6
5. Complete one of the following concentrations:*

Computing Technology

Complete 21-22 credits from the following or from program coordinator-approved courses:
CITS F201—Microcomputer Technology Support..... 1-3
CITS F203—Information Technology Support Fundamentals.....4
CITS F220—Implementing Internet Tools and Technologies.....3
CITS F221—Graphs and Multimedia for the Web.....3
CITS F222—Website Design..... 1-3
CITS F240—System and Network Services Administration.....3
CITS F241—Networking and LAN Infrastructure Basics 4
CITS F242—Routers and Routing Concepts.....4
CITS F243—Intermediate Networking and LAN Infrastructure.....4
CITS F244—Advanced Networking Infrastructure Services.....4
CITS F262—Cybersecurity Defense and Countermeasures.....3
CITS F263—Network Security Penetration Testing.....3
CITS F265—Directory Services Administration 3
CITS F282—IT Troubleshooting Skills..... 1-3
CITS F289—Information Technology: Topics..... 1-3

Network and Cybersecurity

Complete the following:
CITS F241—Networking and LAN Infrastructure Basics 4
CITS F242—Routers and Routing Concepts.....4
CITS F243—Intermediate Networking and LAN Infrastructure.....4
CITS F244—Advanced Networking Infrastructure Services.....4
CITS F262—Cybersecurity Defense and Countermeasures.....3
CITS F263—Network Security Penetration Testing.....3

Network and System Administration

Complete the following:
CITS F240—System and Network Services Administration.....3
CITS F241—Networking and LAN Infrastructure Basics 4
CITS F242—Routers and Routing Concepts.....4
CITS F243—Intermediate Networking and LAN Infrastructure.....4
CITS F244—Advanced Network Infrastructure Services.....4
CITS F265—Directory Services Administration 3

6. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: network support and troubleshooting; system administration; cybersecurity; independent thinking; human relations and support; and professional practices.***

7. Minimum credits required 60

* *Students must earn a C- grade or better in each course.*

** *May be repeated for different topics.*

*** *Prior to graduation, all students are required to pass a certification review that includes a hands-on scenario task and the development and presentation of a portfolio of work.*

Note: Upon admission to the certificate or degree program, each student will be assigned a mentor/committee chairperson who will be responsible for determining the student's current level of competency in the various skill areas; assisting the student in determining the courses/experiences necessary for gaining competency in the deficient skill areas; setting up the student's committee to consist of the mentor and at least one other individual who may be a UA faculty member, an adjunct faculty member, or an expert in the student's community; arranging for practical experiences in the student's community; and organizing the committee's final assessment of the student's work and recommending award of the certificate or degree.