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

Certificate; AAS Degree
Minimum Requirements for Certificate: 30 credits;
for AAS 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 AAS degree program.

The AAS degree program prepares individuals to implement, sup-
port, and troubleshoot computer and information technology systems
and obtain employment as an IT professional. Associate degrees in com-
puting technology, network and cybersecurity, and network and system
administration are offered.

Students entering either the certificate or AAS 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 94).
2. Complete the certificate requirements. (See page 96. 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
   CITS F262—Computer and Information Technology Support Fundamentals .................................3
   CITS F263—Network Security Penetration Testing...............................3
   CITS F264—Introduction to Network Support and
       Administration........................................................................3
   CITS F265—Directory Services Administration.................................3
   CITS F282—IT Troubleshooting Skills................................................1–3
   CITS F289—Information Technology: Topics.....................................3

5. Pass a certification review requiring students to demonstrate profi-
ciency in the following skill areas: operating systems, hardware, and
network support and troubleshooting.***

6. Minimum credits required .................................................................30

Major — AAS Degree

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

1. Complete the general university requirements (page 94).
2. Complete the AAS degree requirements. (See page 98. As part of the
AAS 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 coordina-
tor-approved courses:
   CITS F201—Microcomputer Technology Support..........................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 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 Networking 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.