

INFORMATION TECHNOLOGY SPECIALIST

College of Rural and Community Development
Community and Technical College
907-455-2800
Department of Computer and Information Technology Systems
www.ctc.uaf.edu/its/

Certificate; A.A.S. Degree

Minimum Requirements for Certificate: 30 credits;
for A.A.S. Degree: 60 – 61 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 computer technology support, network and system administration, and web development and 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 95).
2. Complete the certificate requirements. (See page 97. 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*:
 - a. Complete the following IT support foundation courses:
 - CITS F201—Microcomputer Operating Systems Support (3)
and CITS F202—Microcomputer Hardware Support (3)
or CITS F203—Information Technology Support
Fundamentals (4)..... 4 – 6
 - CITS F204—Introduction to Network Support and Administration
3
 - CITS F212—Server Operating Systems 3
 - CITS F261—Computer and Information Security 3

- b. Complete 9 credits from the following or program coordinator approved:
 - CIOS F128—Using and Configuring PC Operating Systems (3)
 - CIOS F130—Microcomputer Word Processing (3)
 - CIOS F133—Microcomputer Presentation Software (3)
 - CIOS F135—Microcomputer Spreadsheets (3)
 - CIOS F146—Using Internet Tools and Technologies (3)
 - CIOS F150—Computer Business Applications (3)
 - CIOS F189—Microcomputer Applications: Topics (3)**
 - CIOS F233—Desktop Publishing (3)
 - CIOS F240—Microcomputer Databases (3)
 - CIOS F255—Microcomputer Graphics (3)
 - CIOS F258—Digital Photography (3)
 - CITS F219—Microcomputer Operating Systems: Topics (3)**
 - CITS F220—Implementing Internet Tools and Technologies (3)
 - CITS F221—Graphics and Multimedia for the Web (3)
 - CITS F222—Internet Authoring and Design (3)
 - CITS F240—System and Network Services Administration (3)
 - CITS F265—Directory Services Administration (3)
 - CITS F282—IT Troubleshooting Skills (3)
 - CITS F289—Information Technology: Topics (1 – 3)..... 9
4. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: operating systems, hardware, and network support and troubleshooting.**
5. Minimum credits required 30

Major — A.A.S. Degree

Concentrations: Computer Technology Support, Network and System Administration, Web Development and Administration

Computer Technology Support

1. Complete the general university requirements (page 95).
2. Complete the A.A.S. degree requirements. (See page 99. 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*:
 - a. Complete the following computer technology support courses:
 - CITS F201—Microcomputer Operating Systems Support (3)
and CITS F202—Microcomputer Hardware Support (3)
or CITS F203—Information Technology Support
Fundamentals (4)..... 4 – 6
 - CITS F204—Introduction to Network Support and
Administration(3)
or CITS F241—Networking and
LAN Infrastructure Basics..... 3 – 4
 - CITS F205—Introduction to Microcomputer Programming (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

- b. Complete 15 – 16 credits from the following or program coordinator approved:
 - CITS F219—Microcomputer Operating Systems: Topics ** (3)
 - CITS F220—Implementing Internet Tools and Technologies (3)
 - CITS F221—Graphics and Multimedia for the Web (3)
 - CITS F222—Internet Authoring and Design (3)
 - CITS F224—Web Scripting (3)
 - CITS F225—Web Databases and Programming (3)
 - CITS F228—Advanced Website Design and Development (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 F249—Networking and Communications: Topics** (3)
 - CITS F265—Directory Services Administration (3)
 - CITS F282—IT Troubleshooting Skills (3)
 - CITS F289—Information Technology: Topics (1 – 3) ** 15 – 16
- c. Complete the following IT professional courses:
 - CITS F281—Professional Practice in IT 3
 - CITS F284—Independent Project (3)
 - or CITS F285—Cooperative Work Experience (3) 3
- 4. Complete CIOS, CITS or CS electives 6
- 5. Complete general electives 0 – 3
- 6. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: operating systems and hardware support and troubleshooting; network support and troubleshooting; independent thinking; human relations and support; and professional practices.***
- 7. Minimum credits required 60

Network and System Administration

- 1. Complete the general university requirements (page 95).
- 2. Complete the A.A.S. degree requirements. (See page 99. 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:*
 - a. Complete the following system administration courses:****
 - CITS F204—Introduction to Network Support and Administration 3
 - CITS F205—Introduction to Microcomputer Programming (3) or CS F103—Introduction to Computer Programming (3) or CS F201—Computer Science I..... 3
 - CITS F212—Server Operating Systems (3) 3
 - CITS F240—System and Network Services Administration 3
 - CITS F261—Computer and Network Security 3
 - CITS F265—Directory Services Administration..... 3
 - b. Complete the following network infrastructure courses:
 - 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
 - c. Complete the following IT Professional courses:
 - CITS F281—Professional Practice in IT 3
 - CITS F284—Independent Project (3) or CITS F285—Cooperative Work Experience 3
 - d. Complete 6 credits of CIOS, CITS or CS electives..... 6

- 4. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: network infrastructure and system administration skills, independent thinking skills, human relations and support skills, and professional practices.***
- 5. Minimum credits required 61

Web Development and Administration

- 1. Complete the general university requirements (page 95).
- 2. Complete the A.A.S. degree requirements. (See page 99. 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:*
 - a. Complete the following system administration courses:****
 - CITS F204—Introduction to Network Support and Administration 3
 - CITS F205—Introduction to Microcomputer Programming (3) or CS F103—Introduction to Computer Programming (3) or CS F201—Computer Science I..... 3
 - CITS F212—Server Operating Systems 3
 - CITS F240—System and Network Services Administration 3
 - CITS F261—Computer and Network Security 3
 - CITS F265—Directory Services Administration..... 3
 - b. Complete the following web development courses:
 - CITS F220—Implementing Internet Tools and Technologies 3
 - CITS F221—Graphics and Multimedia for the Web 3
 - CITS F222—Website Design..... 3
 - CITS F224—Web Scripting..... 3
 - CITS F225—Web Databases and Programming..... 3
 - CITS F228—Advanced Website Design and Development..... 3
 - c. Complete the following IT Professional courses:
 - CITS F281—Professional Practice in IT 3
 - CITS F284—Independent Project (3) or CITS F285—Cooperative Work Experience 3
 - d. Complete 3 credits of CIOS, CITS or CS electives..... 3
- 4. Pass a certification review requiring students to demonstrate proficiency in the following skill areas: web development and system administration skills, independent thinking skills, human relations and support skills, and professional practices.
- 5. Minimum credits required 60

* Students must earn a C grade (2.0) 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.
 **** Students are expected to have completed CITS F201 and F202 or CITS F203 or possess equivalent skills prior to beginning course work in this area.
 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.



All degrees (e.g. Certificate, A.A., A.A.S., A.S., etc) require additional courses. Refer to specific degree and program requirements.

Certificate Requirements

COMMUNICATION (2-3)

Complete one of the following:

ENGL F111X.....	(3)	_____
ABUS F170.....	(3)	_____
ABUS F271.....	(3)	_____
ENGL F211X.....	(3)	_____
ENGL F212.....	(3)	_____
ENGL F213X.....	(3)	_____
COMM F131X.....	(3)	_____
COMM F141X.....	(3)	_____
DEVS F104.....	(1 – 3)	_____
DEVS F105.....	(3)	_____

Other program-approved discipline-based communication course or discipline-based courses with embedded communication content. (2 – 3)

* ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.

COMPUTATION (2-3)

Complete one of the following:

Any course at the F100-level or above in mathematical sciences (computer science, math or statistics).....	(3)	_____
ABUS F155.....	(3)	_____
DEVM F105.....	(3)	_____
ECE F117.....	(3)	_____
HLTH F116.....	(3)	_____
HUMS F117.....	(3)	_____
PRT F155.....	(3)	_____
TTCH F131.....	(3)	_____

Other program-approved discipline-based computation course or discipline-based courses with embedded computation content. (2 – 3)

HUMAN RELATIONS (2-3)

Complete one of the following:

ANTH F100X/SOC F100X.....	(3)	_____
ABUS F154.....	(3)	_____
ANL F287.....	(3)	_____
ECE F245.....	(3)	_____
ED/PSY F245.....	(3)	_____
HLTH F106.....	(3)	_____
HUMS F120.....	(3)	_____
RHS F110.....	(1)	_____
AND RHS F115.....	(2)	_____

Other program-approved discipline-based human relations course or discipline-based courses with embedded human relations content. (2 – 3)

MAJOR SPECIALTY CREDITS (minimum)..... 21

Minimum credits for required certificate..... 30

Associate of Applied Science Requirements

COMMUNICATION (9)

ENGL F111X.....	(3)	_____
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Complete one of the following:

ABUS F271.....	(3)	_____
ENGL F211X.....	(3)	_____
ENGL F212.....	(3)	_____
ENGL F213X.....	(3)	_____

* ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.

Complete one of the following:

COMM F131X.....	(3)	_____
COMM F141X.....	(3)	_____

COMPUTATION (3)

Complete one of the following:

Any course at the F100-level or above in mathematical sciences (computer science, math or statistics).....	(3)	_____
ABUS F155.....	(3)	_____
DEVM F105.....	(3)	_____
ECE F117.....	(3)	_____
HLTH F116.....	(3)	_____
HUMS F117.....	(3)	_____
PRT F155.....	(3)	_____
TTCH F131.....	(3)	_____

Other program-approved discipline-based computation course or discipline-based courses with embedded computation content. (3)

HUMAN RELATIONS (2-3)

Complete one of the following:

ANTH F100X/SOC F100X.....	(3)	_____
ABUS F154.....	(3)	_____
ANL F287.....	(3)	_____
ECE F245.....	(3)	_____
ED/PSY F245.....	(3)	_____
HLTH F106.....	(3)	_____
HUMS F120.....	(3)	_____
RHS F110.....	(1)	_____
AND RHS F115.....	(2)	_____

Other program-approved discipline-based human relations course or discipline-based courses with embedded human relations content. (3)

MAJOR SPECIALTY CREDITS (minimum)..... 30

Minimum credits required for degree..... 60



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