

## **Network Systems Technology (2156) (A.S.)**

### ASSOCIATE IN SCIENCE RECOMMENDED ROADMAP

This academic roadmap is designed to help you select courses each term for your **Associate in Science Degree in Network Systems Technology (2156) (A.S.)**. The mission of the Network Systems Technology (A.S.) degree is to provide a high quality and relevant degree that prepares students for distinctive success in the installation, repair, and maintenance of computers and network-related systems. This hands-on program is designed to respond to the needs of regional businesses by providing computer-related, technical skill training for the I.T. industry.

Full-time students will refer to the term-by-term recommendations, and part-time students will refer to the course-by-course recommendations. "Mile Markers and Notes" on the Roadmap refer to important guidelines for program completion.

This roadmap is intended to provide general guidance about recommended courses and mile markers. For specific guidance about your individual academic degree plan, please see a program advisor. Please also refer to the College Catalog for additional information.

#### **Embedded Certificate(s)**

Six technical certificates are available within this degree program: Network Support Technician (6109) (T.C.), Network Infrastructure (6110) (T.C.), Advanced Network Virtualization (6111) (T.C.), Digital Forensics (6112) (T.C.), Network Enterprise Administration (6113) (T.C.) , and IP Communications (6114) (T.C.). Students may pursue the A.S. degree and earn technical certificates while completing the requirements for the degree or pursue one or more certificates to develop or upgrade their skills in a particular field. Contact an advisor to determine the career education path that is best for you.

**Career Options:** FSCJ is the regional resource for employers in every type of technology. Our partnerships with Cisco Systems, Dell, IBM, Microsoft, Oracle, and Sun Microsystems provide career connections. The College's intranet site posts jobs identifying our students. Graduates are regularly employed by CSX, JEA, Blue Cross Blue Shield, the City of Jacksonville, Medtronic, Mayo Clinic, and other regional employers including the government and military. According to the Bureau of Labor Statistics, employment of computer network support specialists is expected to grow 11 percent from 2016 to 2026, faster than the average for all occupations. Demand for these workers is high and should continue to grow as firms invest in newer, faster technology and mobile networks.

Term Offered: F = Fall Sp = Spring Sm = Summer

Available Modalities: HB = Hybrid OC = On-Campus OL = Online

Full-Time Students: Term-by-Term	Part-Time Students: Course-by-Course	Course: Course Title	Credit Hours	T.C. in Network Support Technician	T.C. in Network Infrastructure*	T.C. in Advanced Network Virtualization**	T.C. in Digital Forensics***	T.C. in Network Enterprise Administration****	T.C. in IP Communications*****	Term Offered	Available Modalities	Mile Markers and Notes
Term 1	1.	ENC 1101: English Composition I	3									<p>Complete an academic degree plan with your advisor.</p> <p>Follow up with an advisor about any accelerated credits that you may have earned (e.g., dual enrollment, AP, CLEP, Industry Certifications, etc.).</p> <p>ENC 1101C can be taken in place of ENC 1101. Please speak with your advisor for more information.</p> <p>See the options for the General Education Requirements in the current College Catalog.</p>
	2.	Choose 1 General Education Mathematics	3									
	3.	CTS 1131C: Hardware Configuration	3	X						F, Sp, Sm	HB, OC, OL	
	4.	CTS 1133C: Software Configuration	3	X						F, Sp, Sm	HB, OC, OL	
Term 2	5.	CTS 1154: Technical Support	3	X						F, Sp, Sm	HB, OC, OL	<p>Contact advisor regarding program track electives.</p>
	6.	CTS 1120C: Fundamentals of Information Security	3							F, Sp, Sm	HB, OC, OL	
	7.	CNT 1015: Operating Systems Foundations	3							F, Sp, Sm	HB, OC, OL	
	8.	CET 2600: Network Fundamentals (CISCO 1)	3	X						F, Sp, Sm	HB, OC, OL	

Term 3	9.	CTS 2655: Routing and Switching Fundamentals (CISCO 2)	4							F, Sp, Sm	HB, OC	Contact advisor regarding Cooperative Internship requirements.
	10.	CTS 1334: Server Configuration	4	X						F, Sp, Sm	HB, OC, OL	T.C. in Network Support Technician earned
	11.	Choose 1 Professional Elective	4									See the list of professional elective options below.
Term 4	12.	Choose 1 General Education Social and Behavioral Sciences	3									See the options for the General Education Requirements in the current College Catalog.
	13.	Choose 1 General Education Humanities	3									See the options for the General Education Requirements in the current College Catalog.
	14.	Choose 1 Professional Elective	4									See the list of professional elective options below.
	15.	Choose 1 Professional Elective	4									See the list of professional elective options below.



- \*\*The required courses for the technical certificate in Advanced Network Visualization vary from those for the Associate in Science in Network Systems Technology. Therefore, the Advanced Network Visualization professional coursework, which totals 34 credit hours, is listed below:
  - CTS 1131C: Hardware Configuration (Credit Hours: 3)
  - CTS 1133C: Software Configuration (Credit Hours: 3)
  - CTS 1334: Server Configuration (Credit Hours: 4)
  - CTS 2302: Server Administration (Credit Hours: 4)
  - CTS 2411: Information Storage Management (Credit Hours: 4)
  - CTS 2370: Virtual Infrastructure: Installation and Configuration (VMware) (Credit Hours: 4)
  - CTS 2371: Virtual Infrastructure: Deployment, Security, and Analysis (Cloud) (Credit Hours: 4)
  - CTS 2372: Virtualized Desktop Infrastructure I (Credit Hours: 4)
  - CTS 2303: Configuring Advanced Server (Credit Hours: 4)
- \*\*\*The required courses for the technical certificate in Digital Forensics vary from those for the Associate in Science in Network Systems Technology. Therefore, the Digital Forensics professional coursework, which totals 32 credit hours, is listed below:
  - CTS 1131C: Hardware Configuration (Credit Hours: 3)
  - CTS 1133C: Software Configuration (Credit Hours: 3)
  - CTS 1120C: Fundamentals of Information Security (Credit Hours: 3)
  - CNT 1015: Operating Systems Foundations (Credit Hours: 3)
  - CTS 1334: Server Configuration (Credit Hours: 4)
  - CAP 2140: Data Forensics I (Credit Hours: 4)
  - CAP 2141: Data Forensics II: Advanced (Credit Hours: 4)
  - CNT 2404: Intrusion Detection Systems and Auditing (Credit Hours: 4)
  - CET 2662: Techniques of Computer Hacking and Incident Handling (Credit Hours: 4)
- \*\*\*\*The required courses for the technical certificate in Network Enterprise Administration vary from those for the Associate in Science in Network Systems Technology. Therefore, the Network Enterprise Administration professional coursework, which totals 29 credit hours, is listed below:
  - CTS 1131C: Hardware Configuration (Credit Hours: 3)
  - CTS 1133C: Software Configuration (Credit Hours: 3)
  - CTS 1334: Server Configuration (Credit Hours: 4)
  - CTS 2302: Server Administration (Credit Hours: 4)
  - CTS 2303: Configuring Advanced Server (Credit Hours: 4)
  - CTS 2304: Server Infrastructure (Credit Hours: 4)
  - CTS 2305: Advanced Server Infrastructure (Credit Hours: 4)
  - CTS 2960: Server Capstone (Credit Hours: 3)
- \*\*\*\*\*The required courses for the technical certificate in IP Communications vary from those for the Associate in Science in Network Systems Technology. Therefore, the IP Communications professional coursework, which totals 32 credit hours, is listed below:
  - CTS 1131C: Hardware Configuration (Credit Hours: 3)
  - CTS 1133C: Software Configuration (Credit Hours: 3)
  - CET 2600: Network Fundamentals (Cisco 1) (Credit Hours: 3)
  - CTS 2655: Routing and Switching Fundamentals (Cisco 2) (Credit Hours: 4)
  - CNT 1015: Operating Systems Foundations (Credit Hours: 3)
  - CTS 1334: Server Configuration (Credit Hours: 4)
  - CTS 1120C: Fundamentals of Information Security (Credit Hours: 3)
  - CTS 1154: Technical Support (Credit Hours: 3)

CNT 2942: Cooperative Education (Internship) (Credit Hours: 2)  
CTS 2662: Voice over IP (VoIP) (Credit Hours: 4)

- Internships are a perfect way to network and display your educational knowledge. The School of Technology and Industry does not assign you to an internship position; rather, this process is similar to finding employment. The desired position should be related to your respective degree. Once the internship location has been identified, please contact your advisor for an Internship Approval form. The form should be completed and then emailed to the facilitating instructor for that semester. Please note that you will not have the ability to self-register for the internship class. A representative from the Technology department will register you for the class once approval has been given by the instructor.

FSCJ offers a great resource for students! It's called the Career Development department, which provides an array of services. Please use the following link to explore: <https://www.fscj.edu/student-services/career-development> .

Additionally, FSCJ partners with CareerSource of Northeast Florida. CareerSource offers internship and employment assistance to our students. There are CareerSource offices at most campuses and centers. Please use the following link for off-campus locations: <https://careersourcenortheastflorida.com/locations>.

- **Professional Elective Options for the A.S. Degree** (17 credit hours required)

CNT 2102: Advanced Routing and Switching (Cisco 3) (Credit Hours: 4)  
CNT 2210: WAN Fundamentals (Cisco 4) (Credit Hours: 4)  
CTS 2411: Information Storage Management (Credit Hours: 4)  
CTS 2370: Virtual Infrastructure: Installation and Configuration (VMware) (Credit Hours: 4)  
CTS 2371: Virtual Infrastructure: Deployment, Security, and Analysis (Cloud) (Credit Hours: 4)  
CTS 2372: Virtualized Desktop Infrastructure I (Credit Hours: 4)  
CAP 2140: Data Forensics I (Credit Hours: 4)  
CAP 2141: Data Forensics II: Advanced (Credit Hours: 4)  
CNT 2404: Intrusion Detection Systems and Auditing (Credit Hours: 4)  
CET 2662: Techniques of Computer Hacking and Incident Handling (Credit Hours: 4)  
CTS 2302: Server Administration (Credit Hours: 4)  
CTS 2303: Configuring Advanced Server (Credit Hours: 4)  
CTS 2304: Server Infrastructure (Credit Hours: 4)  
CTS 2305: Advanced Server Infrastructure (Credit Hours: 4)  
CTS 2960: Server Capstone (Credit Hours: 3)  
CTS 2662: Voice over IP (VoIP) (Credit Hours: 4)  
CTS 1136: A+ Certification Review (Credit Hours: 2)  
CTS 2657: Building Scalable Networks (CCNP Route) (Credit Hours: 4)  
CET 2629: Internet Troubleshooting Support (CCNP TSHOOT) (Credit Hours: 4)  
CTS 2659: Building Multilayer Switched Networks (CCNP Switch) (Credit Hours: 4)  
CTS 2656: Basic Routing and Switching Certification Review (Credit Hours: 2)  
CET 2588: Network+ Certification Review (Credit Hours: 2)