

Computer Information Technology (2153) (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 Computer Information Technology (2153) (A.S.)**. The mission of the Information Technology Associate in Science degree is to prepare students to enter or advance in the field of information technology by combining traditional college education with hands-on training and internship. The curriculum integrates technical skills and general education to train students for a career as a developer, software engineer, programmer-analyst, customer support specialist, database developer, or web developer.

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)

Five technical certificates are available within this degree program: Web Development Specialist (6954) (T.C.), Database Development Specialist (6955) (T.C.), Computer Programming Specialist (6956) (T.C.), Information Technology Support Specialist (6280) (T.C.), and Information Technology Analysis (6281) (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: This degree prepares students for a career as a developer, software engineer, programmer-analyst, customer support specialist, database developer, or web developer.

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 Web Development Specialist*	T.C. in Database Development Specialist**	T.C. in Computer Programming Specialist	T.C. in Information Technology Support Specialist***	T.C. in Information Technology Analysis****	Term Offered	Available Modalities	Mile Markers and Notes
Term 1											<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>MAC 1105 is the recommended course unless student selects COP 2810C or CTS 2910C as electives, for which STA 2023 is a required prerequisite. See the options for the General Education Requirements in the current College Catalog.</p>
	1.	ENC 1101: English Composition I	3								
	2.	MAC 1105: College Algebra	3								
	3.	CTS 1133C: Software Configuration	3						F, Sp, Sm	HB, OC, OL	
	4.	CTS 1131C: Hardware Configuration	3						F, Sp, Sm	HB, OC, OL	

Term 2	5.	ENC 1102: Writing About Texts	3								
	6.	COP 1000C: Introduction to Computer Programming	3			X			F, Sp, Sm	HB, OC, OL	Contact an advisor regarding program track electives.
	7.	CGS 1100: Microcomputer Applications for Business and Economics	3			X			F, Sp, Sm	HB, OC, OL	
	8.	CNT 2001C: Computer Networks and Telecommunications OR CET 2600: Network Fundamentals (CISCO 1)	3						F, Sp, Sm	HB, OL	
Term 3	9.	Choose 1 General Education Humanities	3								
	10.	CTS 1154: Technical Support	3						F, Sp, Sm	HB, OC, OL	
	11.	CTS 1120C: Fundamentals of Information Security	3						F, Sp, Sm	HB, OC, OL	
	12.	Choose 1 Professional Elective	3								See the list of professional elective options below.
Term 4	13.	Choose 1 General Education Social and Behavioral Sciences	3								See the options for the General Education Requirements in the current College Catalog.
	14.	CTS 2437C: SQL Server 1 – Fundamentals or CTS 2440: Oracle SQL and PL/SQL	3 or 4			X			F, Sp, Sm	HB, OC, OL	Contact an advisor regarding Cooperative Internship requirements.
	15.	COP 2822C: Web Technologies	4			X			F, Sp, Sm	OC, OL	
	16.	Choose 1 Professional Elective	3								See the list of professional elective options below.

Term 5	17.	Choose 1 Professional Elective	3								See the list of professional elective options below.
	18.	MAN 2582: Introduction to Project Management	3			X			F, Sp, Sm	HB, OC, OL	
	19.	CIS 2321: Information Systems	3			X			F, Sp, Sm	HB, OC, OL	T.C. in Computer Programming Specialist earned
	20.	CIS 1942: Internship	2						F, Sp, Sm	****	Students must be in their last or next-to-last semester to be eligible to enroll in the internship. Apply for graduation by the required date. <i>Congratulations, Graduate! Celebrate your success at Commencement!</i>
Total Program Credit Hours =			60-61	25	27	19	18	27			

Important for You to Know:

- This academic roadmap does not include developmental education courses in reading, writing, and/or mathematics that you may be required to take. In addition, it does not include MAT 1033: Intermediate Algebra, which, for many students, is a prerequisite course for MAC 1105. Please consult with an advisor for individual assistance.
- *Some of the required courses for the technical certificate in Web Development Specialist vary from those for the Associate in Science in Computer Information Technology. Therefore, the Web Development Specialist professional coursework, which totals 25 credit hours, is listed below:

CGS 1100: Microcomputer Applications for Business and Economics (Credit Hours: 3)
 or CGS 1060C: Introduction to Information Technology (Credit Hours: 3)
 or CTS 1133C: Software Configuration (Credit Hours: 3)
 CGS 2820: Web Site Design and Development (Credit Hours: 4)
 CGS 2821: Advanced Web Site Design and Development (Credit Hours: 4)
 COP 1000C: Introduction to Computer Programming (Credit Hours: 3)
 CTS 2437C: SQL Server I: Fundamentals (Credit Hours: 3)
 or CTS 2440: Oracle SQL and PL/SQL (Credit Hours: 4)
 COP 2822C: Web Technologies (Credit Hours: 4)
 COP 2842C: Internet Programming (Credit Hours: 4)

- **Some of the required courses for the technical certificate in Database Development Specialist vary from those for the Associate in Science in Computer Information Technology. Therefore, the Database Development Specialist professional coursework, which totals 27 credit hours, is listed below:

CGS 1100: Microcomputer Applications for Business and Economics (Credit Hours: 3)
 CIS 2321: Information Systems (Credit Hours: 3)
 COP 1000C: Introduction to Computer Programming (Credit Hours: 3)

COP 2822C: Web Technologies (Credit Hours: 4)
COP 2842C: Internet Programming (Credit Hours: 4)
CTS 2437C: SQL Server I: Fundamentals (Credit Hours: 3)
or CTS 2440: Oracle SQL and PL/SQL (Credit Hours: 4)
CTS 2436C: SQL Server III: Administration (Credit Hours: 4)
or CTS 2441: Oracle Database Administration (Credit Hours: 4)
CTS 2438C: SQL Server II: Programming (Credit Hours:3)
or CTS 2445: Advanced Oracle PL/SQL Programming (Credit Hours: 3)

- ***CGS 1060C: Introduction to Information Technology, one of the required courses for the technical certificate in Information Technology Support Specialist, is not found in the Associate in Science in Computer Information Technology program. Therefore, the Information Technology Support Specialist professional coursework, which totals 18 credit hours, is listed below:

CGS 1100: Microcomputer Applications for Business and Economics (Credit Hours: 3)
CGS 1060C: Introduction to Information Technology (Credit Hours: 3)
CTS 1133C: Software Configuration (Credit Hours: 3)
CTS 1131C: Hardware Configuration (Credit Hours: 3)
CTS 1154: Technical Support (Credit Hours: 3)
CNT 2001C: Computer Networks and Telecommunications (Credit Hours: 3)
or CET 2600: Network Fundamentals (Cisco 1) (Credit Hours: 3)

- ****CGS 1060C: Introduction to Information Technology, one of the required courses for the technical certificate in Information Technology Analysis, is not found in the Associate in Science in Computer Information Technology program. Therefore, the Information Technology Analysis professional coursework, which totals 27 credit hours, is listed below:

CGS 1100: Microcomputer Applications for Business and Economics (Credit Hours: 3)
CGS 1060C: Introduction to Information Technology (Credit Hours: 3)
CTS 1133C: Software Configuration (Credit Hours: 3)
CTS 1131C: Hardware Configuration (Credit Hours: 3)
CTS 1154: Technical Support (Credit Hours: 3)
CNT 2001C: Computer Networks and Telecommunications (Credit Hours: 3)
or CET 2600: Network Fundamentals (Cisco 1) (Credit Hours: 3)
COP 1000C: Introduction to Computer Programming (Credit Hours: 3)
CIS 2321: Information Systems (Credit Hours:3)
MAN 2582: Introduction to Project Management (Credit Hours: 3)

- 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** (9 credit hours required)

COP 2220C: C Programming (Credit Hours: 3)
COP 2334C: Object-Oriented Programming with C++ (Credit Hours: 3)
COP 2360C: Introduction to C# (Credit Hours: 3)
COP 2551C: Introduction to Object Oriented Programming with Java (Credit Hours: 3) or COP2800C: Java I (Credit Hours: 3)
COP 2805C: Advancing Java Programming (Credit Hours: 3)
COP 2806C: Developing Enterprise Applications Using Java EE (Credit Hours: 3)
COP 2837: Introduction to Programming with Visual Basic.NET (Credit Hours: 3)
COP 2842: Internet Programming (Credit Hours: 4)
COP 2823: ASP.NET Programming (Credit Hours: 3)
CTS 2149: CAPM (Certified Associate in Project Management) Exam Prep Course (Credit Hours: 3)
CIS 2930: Special Topics (Credit Hours: 3)
CGS 1060: Introduction to Information Technology (Credit Hours: 3)
CGS 2555: Introduction to the Internet (Credit Hours: 4)
CGS 2820: Web Site Design and Development (Credit Hours: 4)
CGS 2821: Advanced Web Site Design and Development (Credit Hours: 4)
COP 2073C: Introduction to Statistical Programming with R (Credit Hours: 3) - Prerequisites: STA2023
CET 2588: Network+ Certification Review (Credit Hours: 2)
CNT 1015: Operating Systems Foundations (Credit Hours 3)
CTS 1136: A+ Certification Review (Credit Hours: 2)
CTS 2910C: Data Analytics (Credit Hours: 4) - Prerequisites: STA2023
CGS 2542: Database Concepts for Microcomputers (Credit Hours: 3)
CTS 2436C: SQL Server III - Administration (Credit Hours: 4)
CTS 2438C: SQL Server II - Programming (Credit Hours: 3)
CTS 2349C: Introduction to Big Data Using Hadoop (Credit Hours: 3) - Prerequisites: CNT1015
CTS 2456C: Introduction to SAS Programming (Credit Hours: 3)
CTS-2787C: Data Warehousing (Credit Hours: 3)
COP 2034C: Programming in Python (Credit Hours: 3)
CEN 2071C: Introduction to Software Testing (Credit Hours: 3)