

COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

PROGRAM MISSION STATEMENT

The mission of St. Johns River State College's computer programs is to produce graduates with the knowledge and skills essential for success in the workplace and to encourage the pursuit of academic and lifelong learning and personal growth through high quality, innovative and effective instruction.

ST. JOHNS RIVER STATE COLLEGE

COMPUTER INFORMATION TECHNOLOGY

COMPUTER NETWORK ENGINEERING
TECHNOLOGY

COMPUTER PROGRAMMING AND ANALYSIS

COMPUTER PROGRAMMER

COMPUTER PROGRAMMING SPECIALIST

DIGITAL FORENSICS

HELP DESK SUPPORT TECHNICIAN

INFORMATION TECHNOLOGY ADMINISTRATION

INFORMATION TECHNOLOGY ANALYSIS

INFORMATION TECHNOLOGY SUPPORT
SPECIALIST

INTERNET SERVICES TECHNOLOGY

MOBILE DEVICE TECHNOLOGY

NETWORK ENTERPRISE ADMINISTRATION

NETWORK INFRASTRUCTURE - CISCO

NETWORK SECURITY

WEB DEVELOPMENT SPECIALIST



Networking
Academy

SOME DEGREE SPECIFIC COURSES AVAILABLE ON THE ORANGE PARK CAMPUS ONLY

This program prepares students for employment in occupations in which they will devise efficient methods to manage a microcomputer-based work environment, develop new systems to meet projected needs, select and install information technology equipment, troubleshoot information technology equipment, manage and support information technology users. This program is also designed to provide supplemental training for persons previously or currently employed in these occupations.

If you need additional information after seeing a counselor, please send an e-mail to BCCInfo@SJRstate.edu.

GENERAL EDUCATION COURSES: 15 HOURS

	ENC	1101	Composition I.....	3
+	ENC	1102	Composition II.....	3
+*	—	—	General Education Mathematics.....	3
*	—	—	General Education Social Science.....	3
+*	—	—	General Education Humanities.....	3

DEGREE SPECIFIC COURSES: (42 CREDIT HOURS)

	CET	1178C	Computer Hardware Support Essentials.....	3
	CET	2179C	Computer Software Support Essentials.....	3
+	CET	2565C	Introduction to Server Operating Systems.....	3
	CET	2660C	Network Security Essentials.....	3
	CGS	1060	Introduction to Computer Concepts.....	3
	CGS	1100	Microcomputer Application Software.....	3
+	CGS	1560C	Microcomputer Operating Systems.....	3
+	CGS	2545	Database Concepts for Business.....	3
+	CNT	2500	Network/Data Communications.....	3
	COP	1000	Introduction to Computer Programming.....	3
+	COP	2822	Web Page Authoring.....	3
+	CTS	1142	Information Technology Project Management.....	3
+	CTS	2111C	Linux Network Administration.....	3
+	CTS	2155	Customer Support Operations.....	3

ELECTIVES (CHOOSE 3 CREDIT HOURS):

+	CGS	2811C	Disaster Recovery Fundamentals.....	3
	CGS	2949	Computer Information Technology Capstone.....	3
	CIS	2321	Information Systems.....	3
+	COP	2701	Advanced Database Concepts in Programming.....	3
+	CTS	2191C	Mobile Device Concepts.....	3

REQUIRED TOTAL CREDIT HOURS 60

*Refer to A.A. degree general education requirements.
+Prerequisite course required. See course descriptions in catalog.

Additional credit may be awarded for current industry certifications based on the Florida Department of Education Gold Standard Industry Certification Articulation agreements.

NOTE: The CET lab is located on the Orange Park Campus. Most of the courses requiring a lab component will be offered as hybrid classes. In hybrid courses, theory and concepts are taught online and students are required to attend campus to complete lab requirements.

NOTE: Courses are listed alphabetically. This is not the order in which the course should be taken. Please see the program plan/course rotation to see the order in which courses should be taken. This will ensure that you complete prerequisite courses and are prepared for additional courses when they are offered.



COMPUTER NETWORK ENGINEERING TECHNOLOGY (0194)

ASSOCIATE IN SCIENCE DEGREE

This program prepares students for employment as cabling specialists, PC support technicians, network control operators, data communications analysts, help desk specialists, network technicians, computer security specialists, network specialists, network managers, network systems analysts, network systems technicians, network troubleshooters, WAN/LAN managers, or network system administrators. This program also provides supplemental training for persons previously or currently employed in these occupations.

If you need additional information after seeing an advisor, please send an email to BCCInfo@SJRstate.edu.

GENERAL EDUCATION COURSES:

	ENC	1101	Composition I.....	3
+	ENC	1102	Composition II.....	3
+*	_____	_____	General Education Mathematics.....	3
+*	_____	_____	General Education Humanities.....	3
*	_____	_____	General Education Social Science.....	3

DEGREE SPECIFIC COURSES:

+	CET	1178C	Computer Hardware Support Essentials.....	3
+	CET	1600C	Network Fundamentals.....	3
+	CET	2179C	Computer Software Support Essentials.....	3
+	CET	2565C	Introduction to Server Operating Systems.....	3
+	CET	2610C	Routing Protocols and Concepts.....	3
+	CET	2615C	LAN Switching and Wireless.....	3
+	CET	2620C	Accessing the WAN.....	3
+	CET	2660C	Network Security Essentials.....	3
+	CET	2883C	Attack Prevention and Detection.....	3
+	CGS	1060	Introduction to Computer Concepts.....	3
+	CGS	1560C	Microcomputer Operating Systems.....	3
+	COP	1000	Introduction to Computer Programming.....	3
+	CTS	2111C	Linux Network Administration.....	3

ELECTIVES (CHOOSE ANY 6 CREDIT HOURS)

	CAP		(Any CAP course).....	3-6
	CET		(Any CET course).....	3-6
	CGS	1100	Microcomputer Application Software.....	3
+	CGS	2545	Database Concepts for Business.....	3
+	CGS	2811C	Disaster Recovery Fundamentals.....	3
+	CGS	2820	Web Page Design and Publishing.....	3
+	CGS	2930	Special Topics in Computer Studies.....	3
+	CGS	2949	Computer Information Technology Capstone.....	3
+	CIS	2321	Information Systems.....	3
	COP		(Any COP course).....	3-6
	CTS		(Any CTS course).....	3-6
	ETS		(Any ETS course).....	3
	GIS		(Any GIS course).....	3-6

REQUIRED TOTAL CREDIT HOURS

60

*Refer to A.A. degree general education requirements.

+Prerequisite course required. See course descriptions in catalog.

NOTE: The CISCO Lab is located on the Orange Park campus. The following courses are only taught in the CISCO Lab: CET 1600C, CET 2610C, CET 2620C, and CET 2615C. Most of the courses requiring lab component will be offered as hybrid classes. In hybrid courses, theory and concepts are taught online and students are required to attend campus to complete lab requirements.

Courses are listed alphabetically. This is not the order in which courses should be taken. Please see the program plan/course rotation to see the order in which courses should be taken.



This program prepares graduates for entry-level work as business applications programmers or analysts. Graduates possess knowledge of general computer concepts and data processing fundamentals and skills in programming, accounting, and systems analysis and design. The practical applications skills in business programming enable graduates to pursue careers in business programming, systems analysis, or management. Students who plan to pursue the B.S. degree will need additional general education courses to meet university requirements.

The Computer Programming and Analysis can be completed on campus or online.

If you need additional information after seeing a counselor, please send an e-mail to BCCInfo@sjrstate.edu.

GENERAL EDUCATION COURSES:

ENC	1101	Composition I.....	3
+ ENC	1102	Composition II.....	3
+*	_____	General Education Mathematics.....	3
+*	_____	General Education Social Science.....	3
+*	_____	General Education Humanities.....	3

DEGREE SPECIFIC COURSES:

+ CAP	2023	Introduction to Game Programming.....	3
	CGS 1060	Introduction to Computer Concepts.....	3
+ COP	1000	Introduction to Computer Programming.....	3
+ CGS	2949	Computer Information Technology Capstone.....	3
+ CIS	2321	Information Systems.....	3
+ COP	2830	Web Programming Languages.....	3
+ COP	2822	Webpage Authoring.....	3

PROGRAMMING ELECTIVES + OPTIONS 24

Choose 1 specialization for the remaining 24 hours

OPTION A-ROBOTICS 24

+ COP	2224	Programming in C+.....	3
+ COP	2360	Programming in C#.....	3
+ COP	2220	Programming in C.....	3
+ COP	2837	Introduction to Programming with Visual Basic.Net.....	3
	ETS 1603C	Fundamentals of Robotics.....	3
+ ETS	1542	Programmable Logic Controllers I.....	3
+ ETS	2604C	Robotics Applications.....	3
+ ETS	2544C	Programmable Logic Controllers II.....	3

OPTION B-SOFTWARE DEVELOPER 24

+ COP	2220	Programming in C.....	3
+ COP	2224	Programming in C+.....	3
+ COP	2360	Programming in C#.....	3
+ COP	2657	Introduction to Mobile App Programming.....	3
+ COP	2800	Java Programming.....	3
+ COP	2801	Programming JavaScript.....	3
+ COP	2805	Advanced Java Programming.....	3
+ COP	2837	Introduction to Programming in Visual Basic.Net.....	3

OPTION C- DATABASE 24

+ CAP	2762	Introduction to Data Mining.....	3
+ CGS	2545	Database Concepts for Business.....	3
+ COP	2700	Intro to SQL.....	3
+ COP	2701	Advanced Database Concepts.....	3
+ COP	2800	Java Programming.....	3
+ COP	2801	Programming in JavaScript.....	3
+ COP	2805	Advanced Java Programming.....	3
+ COP	2657	Introduction to Mobile App Programming.....	3

REQUIRED TOTAL CREDIT HOURS 60

*Refer to A.A. degree general education requirements.

+Prerequisite course required. See course descriptions in catalog.

Additional credit may be awarded for current industry certifications based on the Florida Department of Education Gold Standard Industry Certification articulation agreements.

SOME DEGREE SPECIFIC COURSES AVAILABLE ON THE ORANGE PARK CAMPUS ONLY

This program prepares students for employment as computer programmer trainees, systems analyst trainees, microcomputer specialists and software application technicians. This program prepares individuals to use methods and procedures to automate business applications, to utilize business software applications, and to incorporate review of system and programming specifications to yield solutions to business applications problems. It also provides supplemental training for persons previously or currently employed in this occupational area.

This program is an intermediate step toward an Associate in Science degree in Computer Programming and Analysis.

If you need additional information after seeing an advisor, please send an email to BCCInfo@SJRstate.edu.

CERTIFICATE SPECIFIC COURSES:

+ CAP	2023	Introduction to Game Programming.....	3
CGS	1060	Introduction to Computer Concepts.....	3
+ CGS	2545	Database Concepts for Business	3
+ CIS	2321	Information Systems	3
+ COP	1000	Introduction to Computer Programming	3
+ COP	2224	Programming in C+.....	3
+ COP	2701	Advanced Database Concepts in Programming	3
+ COP	2800	Java Programming	3
COP	2805	Advanced Java Programming	3
+ COP	2822	Web Page Authoring	3
+ COP	2837	Introduction to Programming with Visual Basic.NET	3

REQUIRED TOTAL CREDIT HOURS **33**

+Prerequisite course required. See course descriptions in catalog.

Additional credit may be awarded for current industry certifications based on the Florida Department of Education Gold Standard Industry Certification articulation agreements.

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COMPUTER PROGRAMMING SPECIALIST (4120)

COLLEGE CREDIT CERTIFICATE

This program prepares students for employment as entry level programmers or programmer specialists or to provide supplemental training for persons previously or currently employed in these occupations. The content prepares individuals to store, locate, and retrieve specific documents, data, and information; code into computer language; test, monitor, debug, document and maintain computer programs.

This program is an intermediate step toward an Associate in Science degree in Computer Programming and Analysis.

If you need additional information after seeing an advisor, please send an email to BCCInfo@SJRstate.edu.

CERTIFICATE SPECIFIC COURSES:

	CGS	1060	Introduction to Computer Concepts	3
+	CGS	2545	Database Concepts for Business	3
+	COP	1000	Introduction to Computer Programming	3
+	COP	2224	Programming in C+.....	3
+	COP	2822	Web Page Authoring	3
+	COP	2837	Introduction to Programming with Visual Basic.NET	3

REQUIRED TOTAL CREDIT HOURS **18**

+Prerequisite course required. See course descriptions in catalog.

Additional credit may be awarded for current industry certifications based on the Florida Department of Education Gold Standard Industry Certification articulation agreements.

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This program prepares students for entry-level employment in the field of computer security with an emphasis on digital forensics and computer crime investigation. This program will also enhance the knowledge of those previously or currently employed in the field.

This program is an intermediate step toward the Associate in Science degree in Computer Network Engineering.

If you need additional information after seeing an advisor, please send an email to BCCInfo@SJRstate.edu.

DEGREE SPECIFIC COURSES:

+ CAP 2140	Data Forensics I	3
+ CAP 2141	Data Forensics II	3
+ CET 2660C	Network Security Essentials.....	3
+ CET 2883C	Attack Prevention and Detection	3
CGS 1060	Introduction to Computer Concepts	3
+ COP 1000	Introduction to Computer Programming	3
+ CTS 2111C	Linux Network Administration	3
+ CNT 2500	Network/Data Telecommunications	3
OR		
CET 1600C	Network Fundamentals.....	3

REQUIRED TOTAL CREDIT HOURS **24**

+Prerequisite course required. See course descriptions in catalog.

Additional credit may be awarded for current industry certifications based on the Florida Department of Education Gold Standard Industry Certification articulation agreements.

NOTE: Most of the courses requiring a lab component will be offered as hybrid classes. In hybrid courses, theory and concepts are taught online and students are required to attend campus to complete lab requirements.

NOTE: Courses are listed alphabetically. This is not the order in which the courses should be taken. Please see the program plan/course rotation to see the order in which courses should be taken. This will ensure that you complete prerequisite courses and are prepared for additional courses when they are offered.