ST. JOHNS RIVER STATE COLLEGE

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.

COMPUTER SCIENCE & INFORMATION TECHNOLOGY

Computer Information Technology
Computer Network Engineering Technology
Computer Programming and Analysis
Computer Programmer
Computer Programming Specialist
Digital Forensics
Geographic Information Systems
Help Desk Support Technician
Information Technology Administration
Information Technology Support Specialist
Internet Services Technology
Network Enterprise Administration
Network Infrastructure - CISCO
Network Security
Web Development Specialist

ST. JOHNS RIVER STATE COLLEGE
COMPUTER INFORMATION TECHNOLOGY (0114)

ASSOCIATE IN SCIENCE DEGREE

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 and 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 email 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:
+ CET 1178C Computer Hardware Support Essentials ..................... 3
+ CET 2179C Computer Software Support 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
+ CIS 2321 Information Systems ...................................................... 3
+ COP 1000 Introduction to Computer Programming ........................... 3
+ COP 2822 Web Page Authoring .................................................... 3
+ CTS 2155 Customer Support Operations ........................................ 3
+ CNT 2500 Network/Data Communications .................................
or
+ CET 1600C Network Fundamentals ................................................ 3

ELECTIVES (CHOOSE 12 CREDIT HOURS):
CAP 2134 Database Security .............................................................. 3
+ CET 2660C Network Security Essentials ........................................ 3
+ CGS 1515 Spreadsheet Concepts for Business ............................... 3
CGS 2554 Introduction to Electronic Commerce ............................... 3
+ CGS 2820 Web Page Design and Publishing .................................... 3
CGS 2871 Multimedia .................................................................
+ CGS 2949 Computer Information Technology Capstone ................. 3
COP (Any COP Course) ..................................................................
+ COP 2224 Programming in C++ .................................................... 3
+ CTS 2111C Linux Server Administration ........................................ 3
+ DKG 1109 Digital Imaging Fundamentals ....................................... 3
+ ETS (Any ETS course) ..............................................................
GIS (Any GIS course) ...................................................................
+ MAN 2021 Principles of Management ........................................... 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 a counselor, 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 Server 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)............................................................................................................................... 3-6
- 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.
SOME DEGREE SPECIFIC COURSES AVAILABLE ON THE ORANGE PARK CAMPUS ONLY

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.

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

GENERAL EDUCATION COURSES:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<td>Composition I</td>
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</tr>
<tr>
<td>ENC 1102</td>
<td>Composition II</td>
<td>3</td>
</tr>
<tr>
<td>*</td>
<td>General Education Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*</td>
<td>General Education Social Science</td>
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</tr>
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<td>*</td>
<td>General Education Humanities</td>
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DEGREE SPECIFIC COURSES:

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<th>Course</th>
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<td>CAP 2023</td>
<td>Introduction to Game Programming</td>
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<td>CTS 2111C</td>
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<td>CET 1600C</td>
<td>Network Fundamentals</td>
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</tr>
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<td>CGS 1060</td>
<td>Introduction to Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2545</td>
<td>Database Concepts for Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 2321</td>
<td>Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>COP 1000</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2224</td>
<td>Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>COP 2701</td>
<td>Advanced Database Concepts in Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2800</td>
<td>Java Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2801</td>
<td>Programming in JavaScript</td>
<td>3</td>
</tr>
<tr>
<td>COP 2805</td>
<td>Advanced Java Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2822</td>
<td>Web Page Authoring</td>
<td>3</td>
</tr>
<tr>
<td>COP 2830</td>
<td>Web Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>+</td>
<td>Introduction to Programming with Visual Basic.NET</td>
<td>3</td>
</tr>
<tr>
<td>COP 2837</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
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</table>

COMPUTER PROGRAMMING ELECTIVES (CHOOSE 6 CREDIT HOURS):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CAP 2134</td>
<td>Database Security</td>
<td>3</td>
</tr>
<tr>
<td>CTS 2111C</td>
<td>Linux Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CET 1600C</td>
<td>Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1100</td>
<td>Microcomputer Applications Software</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1515</td>
<td>Spreadsheet Concepts for Business</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1560C</td>
<td>Microcomputer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2820</td>
<td>Web Page Design and Publishing</td>
<td>3</td>
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<tr>
<td>CGS 2871</td>
<td>Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>COP —</td>
<td>(Any COP Course)</td>
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<td>COP 2657</td>
<td>Introduction to Mobile App Programming</td>
<td>3</td>
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<tr>
<td>MAC 2233</td>
<td>Survey of Calculus</td>
<td>3</td>
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<tr>
<td>GEB 1011</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>MAN 1949</td>
<td>Cooperative Education Internship I</td>
<td>1-3</td>
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<tr>
<td>SPC 1608</td>
<td>Fundamentals of Speech</td>
<td>3</td>
</tr>
<tr>
<td>STA 2023</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

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: 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.
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 a counselor, please send an email to BCCInfo@SJRstate.edu.

**CERTIFICATE SPECIFIC COURSES**:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 2023</td>
<td>Introduction to Game Programming</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1060</td>
<td>Introduction to Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2545</td>
<td>Database Concepts for Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 2321</td>
<td>Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>COP 1000</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2224</td>
<td>Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>COP 2701</td>
<td>Advanced Database Concepts in Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2800</td>
<td>Java Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2805</td>
<td>Advanced Java Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2822</td>
<td>Web Page Authoring</td>
<td>3</td>
</tr>
<tr>
<td>COP 2837</td>
<td>Introduction to Programming with Visual Basic.NET</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.
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 a counselor, please send an email to BCCInfo@SJRstate.edu.

CERTIFICATE SPECIFIC COURSES:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CGS 1060</td>
<td>Introduction to Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>+ CGS 2545</td>
<td>Database Concepts for Business</td>
<td>3</td>
</tr>
<tr>
<td>+ COP 1000</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>+ COP 2224</td>
<td>Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>+ COP 2822</td>
<td>Web Page Authoring</td>
<td>3</td>
</tr>
<tr>
<td>+ COP 2837</td>
<td>Introduction to Programming with Visual Basic.NET</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.
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 a counselor, please send an email to BCCInfo@SJRstate.edu.

**DIGITAL FORENSICS (4124)**

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 a counselor, 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 Server Administration ............................................. 3
- **CNT 2500** Network/Data Telecommunications
  
  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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.
This college credit certificate is designed to prepare students for employment in the Geographic Information System area. Individuals in this area use special technology to input data from various sources, create digital maps, and cross-reference the geographical data.

This program is an intermediate step toward the Associate in Science degree in Computer Information Technology.

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

**CERTIFICATE SPECIFIC COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CGS 1060</td>
<td>Introduction to Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1100</td>
<td>Microcomputer Application Software</td>
<td>3</td>
</tr>
<tr>
<td>COP 1000</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>+ COP 2700</td>
<td>Introduction to SQL</td>
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<tr>
<td>GIS 1040</td>
<td>Introduction to Geographic Information Systems I</td>
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</tr>
<tr>
<td>+ GIS 1042</td>
<td>Introduction to Geographic Information Systems II</td>
<td>3</td>
</tr>
<tr>
<td>+ GIS 1047</td>
<td>Applications of Geographic Information Systems</td>
<td>3</td>
</tr>
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**REQUIRED TOTAL CREDIT HOURS**

21

*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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.
HELP DESK SUPPORT TECHNICIAN (4108)

This college credit certificate is designed to prepare students for employment with companies that have a continuing need for trained customer support specialists to answer customer problem calls and provide assistance in solving technical problems.

This program is an intermediate step toward the Associate in Science degree in Computer Information Technology.

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

CERTIFICATE SPECIFIC COURSES:
+ CET 1178C Computer Hardware Support Essentials ................................................................. 3
+ CET 2179C Computer Software Support Essentials ................................................................. 3
CGS 1060 Introduction to Computer Concepts ........................................................................ 3
CGS 1100 Microcomputer Application Software ...................................................................... 3
+ CNT 2500 Network/Data Communications ........................................................................ 3
+ CTS 2155 Customer Support Operations ............................................................................... 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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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, CET 2615C. 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.
INFORMATION TECHNOLOGY ADMINISTRATION (4115)

This program prepares students for entry-level employment as Internet/intranet technicians, Web Internet/intranet developers, website developers, Internet/intranet masters, and webmasters. This program will also enhance the knowledge of those previously or currently employed in the field.

This program is an intermediate step toward an Associate in Science degree in Internet Services Technology.

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

CERTIFICATE SPECIFIC COURSES:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<td>CGS 1060</td>
<td>Computer Concepts</td>
<td>3</td>
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<td>CGS 2554</td>
<td>Introduction to Electronic Commerce</td>
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<td>CNT 2500</td>
<td>Network/Data Communications</td>
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<td>COP 2822</td>
<td>Web Page Authoring</td>
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<td>DIG 1109</td>
<td>Digital Imaging Fundamentals</td>
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<tr>
<td>DIG 2561</td>
<td>Managing Technical Projects</td>
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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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.
This college credit certificate is designed to prepare students for employment as technical support specialists with an IT department. Individuals in this area help IT staff analyze, troubleshoot, and evaluate computer and network problems.

This program is an intermediate step toward an Associate in Science degree in Computer Information Technology.

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

**CERTIFICATE SPECIFIC COURSES:**

+ CET 2179C  Computer Software Support Essentials ................................................................. 3
  CGS 1060  Introduction to Computer Concepts ................................................................. 3
  CGS 1100  Microcomputer Application Software ............................................................... 3
+ CGS 1560C  Microcomputer Operating Systems ................................................................. 3
+ CIS 2321  Information Systems ........................................................................................... 3
+ CNT 2500  Network/Data Communications ....................................................................... 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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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 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.
INTERNET SERVICES TECHNOLOGY (0135)
ASSOCIATE IN SCIENCE DEGREE

This program prepares students seeking employment in areas including Web administration, webmaster, Web coordinator, Internet developer, intranet/extranet developer, Internet manager, and Web designer. The program will also enhance knowledge of persons currently employed in the field.

If you need additional information after seeing a counselor, 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 Social Science ................... 3
* ___ ___ General Education Humanities ......................... 3

DEGREE SPECIFIC COURSES:

CGS 1060 Computer Concepts ........................................... 3
CGS 2554 Introduction to Electronic Commerce ................... 3
CGS 2871 Multimedia ................................................... 3
+ CGS 2820 Web Page Design & Publishing ....................... 3
+ CNT 2500 Network/Data Communications
or
+ CET 1600C Network Fundamentals .................................. 3
+ COP 1000 Introduction to Computer Programming ................ 3
+ COP 2657 Mobile Programming ..................................... 3
+ COP 2700 Introduction to SQL ....................................... 3
+ COP 2800 Java Programming ......................................... 3
+ COP 2801 Programming in JavaScript ............................. 3
+ COP 2822 Web Page Authoring ..................................... 3
+ COP 2830 Web Programming Languages......................... 3
DIG 1109 Digital Imaging Fundamentals ......................... 3
+ DIG 2101 Advanced Web Design ................................... 3
+ DIG 2561 Managing Technical Projects .......................... 3
COP/CGS (any Computer Science course) .......................... 3

REQUIRED TOTAL CREDIT HOURS ........................................................................................................63

*Refer to A.A. degree general education requirements.
+Prerequisite courses 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.
This certificate is a college credit program that prepares students for jobs as trained network technicians capable of building, managing, securing, and solving intricate and dynamic technical problems of networks, especially those composed of CISCO routers and switches.

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

**CERTIFICATE SPECIFIC COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 1600C</td>
<td>Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CET 2610C</td>
<td>Routing Protocols and Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CET 2565C</td>
<td>Introduction to Server Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CET 2620C</td>
<td>Accessing the WAN</td>
<td>3</td>
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<td>CET 2660C</td>
<td>Network Security Essentials</td>
<td>3</td>
</tr>
<tr>
<td>CET 2615C</td>
<td>LAN Switches and Wireless</td>
<td>3</td>
</tr>
<tr>
<td>CET 2883C</td>
<td>Attack Prevention and Detection</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1060</td>
<td>Introduction to Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CTS 2111C</td>
<td>Linux Server Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

**REQUIRED TOTAL CREDIT HOURS**

27

+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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.

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.
This college credit certificate program prepares students for jobs as trained network support technicians capable of managing, securing, and solving technical problems of networks, especially those composed of CISCO routers and switches. The curriculum covers networking fundamentals, WAN technologies, basic security and wireless concepts. In addition, completion of this certificate will prepare students for the opportunity to earn CISCO industry certifications.

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

CERTIFICATE SPECIFIC COURSES:

- CGS 1060 Introduction to Computer Concepts ................................................................. 3
- CET 1600C Network Fundamentals ................................................................................ 3
- CET 2610C Routing Protocols and Concepts ................................................................. 3
- CET 2620C Accessing the WAN .................................................................................... 3
- CET 2660C Network Security Essentials ...................................................................... 3
- CET 2615C LAN Switches and Wireless ...................................................................... 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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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.
This certificate is a college credit program that prepares students for entry level positions in the field of network security. Students will learn and demonstrate proficiency in the following areas: operating systems, virtual machines, network design, operations, securing network infrastructure and protecting data, penetration testing, ethical hacking, cyber security incidents, basic forensic analysis, and employability skills.

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

CERTIFICATE SPECIFIC COURSES:
+ CET 1600C Network Fundamentals ................................................................. 3
+ CET 2565C Introduction to Server Operating Systems ........................................... 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 Programming ............................................................... 3
+ CTS 2111C Linux Server Administration ............................................................ 3

REQUIRED TOTAL CREDIT HOURS .................................................................................. 21
+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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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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.
This program prepares students for entry-level employment as Internet/intranet technicians, Web Internet/intranet developers, website developers, Internet/intranet masters, and webmasters. This program will also enhance the knowledge of those previously or currently employed in the field.

This program is an intermediate step toward an Associate in Science degree in Internet Services Technology.

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

DEGREE SPECIFIC COURSES:

<table>
<thead>
<tr>
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<td>3</td>
</tr>
<tr>
<td>CGS 2554</td>
<td>Introduction to Electronic Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2820</td>
<td>Web Page Design and Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2871</td>
<td>Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>CNT 2500</td>
<td>Network/Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>COP 1000</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 2700</td>
<td>Introduction to SQL</td>
<td>3</td>
</tr>
<tr>
<td>COP 2801</td>
<td>Programming in JavaScript</td>
<td>3</td>
</tr>
<tr>
<td>COP 2822</td>
<td>Web Page Authoring</td>
<td>3</td>
</tr>
<tr>
<td>DIG 1109</td>
<td>Digital Imaging Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>DIG 2101</td>
<td>Advanced Web Design</td>
<td>3</td>
</tr>
<tr>
<td>DIG 2561</td>
<td>Managing Technical Projects</td>
<td>3</td>
</tr>
</tbody>
</table>

REQUIRED TOTAL CREDIT HOURS ...........................................................................................................................................................................................36

+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.

Gainful employment information regarding the cost, careers, completion and placement rates associated with this program may be found at SJRstate.edu/geprograms.html.

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