# Computer Information Systems Standard Certificate

This program is designed to serve students planning to enter the business data processing field and those already employed who need specialized skills required by the computing industry. This curriculum is not designed to transfer to a four-year institution; however, some courses will transfer. Consult the catalog of the transfer institution and the STARS Transfer Guide at http://stars.troy.edu. Students must have a "C" average or better in all CIS courses credited toward the degree and a 2.0 cumulative grade point average in all courses attempted at the College.

To complete the 48 credits required for this degree, students must choose either the App Development w/ Apple Option or the Networking Option.

NOTES

* For the Math requirement, if transferring, students need MTH 125 Calculus I.

* Prerequisites required for CIS 207, 268, 269, 155, 159, 251, 161, 280, 220 and 227.

* Typing proficiency is a prerequisite for CIS 146, CIS 147, and other programming courses.  Students who are not proficient should take a keyboarding class prior to enrollment.

* The student must have a "C" average or better in all courses credited toward a certificate or degree.

**Program:** Computer Information Systems
**Type:** Standard Certificate

## Written Composition

| Item # | Title | Credits |
|---|---|---|
| ENG 101 | English Composition I | 3 |

## Natural Sciences & Math

| Item # | Title | Credits |
|---|---|---|
| | MTH 100, MTH 116 or higher | 3 |

## History, Social, and Behavioral Sciences

| Item # | Title | Credits |
|---|---|---|
| | Area IV Elective 3 SH | 3 |

# Additional General Education Courses, Major Courses and Electives

| Item # | Title | Credits |
| --- | --- | --- |
| CIS 130 | Introduction to Information Systems | 3 |
| CIS 146 | Microcomputer Applications | 3 |
| CIS 147 | Advanced Micro Applications | 3 |
| CIS 155 | Introduction to Mobile App Development | 3 |
| CIS 157 or CIS 244 | Introduction to App Development with Swift | 3 |
| CIS 185 | Computer Ethics | 3 |
| CIS 191 | Intro to Computer Programming Concepts | 3 |
| CIS 207 | Intro to Web Development | 3 |
| CIS 209 | Advanced Web Development | 3 |
| CIS 251 | C++ Programming | 3 |
| CIS 268 | Software Support | 3 |
| CIS 269 | Hardware Support | 3 |

# App Development w/Apple Option

| Item # | Title | Credits |
| --- | --- | --- |
| CIS 220 or CIS 171 | App Development with Swift I | 3 |
| CIS 227 or CIS 222 | App Development with Swift II | 3 |

# Networking Option

| Item # | Title | Credits |
| --- | --- | --- |
| CIS 161 | Intro to Networking Communications | 3 |
| CIS 280 | Network Security | 3 |
| | Total credits: | 48 |