**ASSOCIATE IN APPLIED SCIENCE - INFORMATION TECHNOLOGY**

Viewing Program Version for Fall 2021

This vocational, employable, applied technical degree is intended for students interested in pursuing a high-tech career. Students enrolled in this program are expected to commit a minimum of three hours each week for each credit enrolled. This program covers topics and skills from entry level information technology to advanced topics such as cybersecurity and operations systems theory. Most courses will have hands-on applied learning labs.

Students entering this program should have basic Windows computing skills. Students should also have access to a modern Windows computer and high-speed Internet for online courses.

Many of the courses in this program include topics and content covered in many industry certifications. These courses are not intended to be a bootcamp style preparation course. Students that complete these courses will be able to prepare to take industry certification exams with a reasonable amount of self-preparation. Industry certifications are not required to complete any course or the program, but students are strongly encouraged to pass a minimum of one industry certification while enrolled in this degree plan.

Completing this program will prepare graduates for many entry level Information Technology jobs. Students interested in advance or specialized careers should consider continuing their studies to pursue a Bachelor of Applied Science in Information Technology Systems or Cyber Security at SFCC.

# Learning Outcomes

## Upon graduation from the Information Technology program, graduates should be able to:

* Utilize computing concepts and functional elements.
* Evaluate fundamental networking concepts.
* Recommend standard security concepts.
* Make use of common data management technologies.
* Construct functional computer automation scripts.

# Career Opportunities

# Graduates can pursue technical careers with job titles such as: System Administrator, Network Operations Specialist, Technical Support Specialist, IT Project Manager, Database Administrator, or Cyber Defense Analyst.

# Typical Student Schedule for Fall 2021

First Quarter

|  |  |  |
| --- | --- | --- |
| MATH107 | Math in Society1 | 5 |
| ENGL&101 | English Composition I | 5 |
| IS 101 | Planning for Information Technology Students | 1 |
| IS 102 | IS and Cybersecurity Careers | 2 |
| IS 103 | Information Technology Fundamentals | 5 |

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Second Quarter

|  |  |  |
| --- | --- | --- |
| IS 125 | Linux Fundamentals | 5 |
| IS 165 | Networking Fundamentals | 5 |
| CS 223 | Programming for IT (Python) | 5 |

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Third Quarter

|  |  |  |
| --- | --- | --- |
| IS166 | Secure Mobile Computing | 5 |
| IS244 | Network Security I | 5 |
| IS222 | Secure Cloud Computing | 5 |

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Fourth Quarter

|  |  |  |
| --- | --- | --- |
| IS288 | Cooperative Work Experience (no seminar) | 2 |
| Elective | Select from IT Degree Electives List4 | 5 |
| Elective | Select from IT Degree Electives List4 | 5 |

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Fifth Quarter

|  |  |  |
| --- | --- | --- |
| Lab Science | Select from Lab Science List2 | 5 |
| Elective | Select from IT Degree Electives List4 | 5 |
| Elective | Select from IT Degree Electives List4 | 5 |

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Sixth Quarter

|  |  |  |
| --- | --- | --- |
| ENGL&235 | Technical Writing3 | 5 |
| Elective | Select from IT Degree Electives List4 | 5 |
| Elective | Select from IT Degree Electives List4 | 5 |

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30 credits of IT Electives and 90 credits are required for the Associate in Applied Science – Information Technology

*1* Students that do not intend to pursue a Bachelor of Applied Science can substitute MATH088. Students intending to pursue a Bachelor of Applied Science should take MATH141 or higher.

*2*Lab Science Courses

ASTR& 101

BIOL 100, 110, 115; BIOL& 160, 221, 222, 223, 241, 242, 260

BOT 111, 112, 113

CHEM 115; CHEM& 110, 121, 122, 123, 140, 161,

162, 163, 241/251, 242/252, 243/253

ENVS& 101

GEOL 201, 210; GEOL& 101

PHYS 100, 101, 102, 103, 201, 202, 203

ZOOL 121, 122

*3*Students that intend to pursue a Bachelor of Applied Science should substitute CMST&101 Introduction to Communication.

*4*IT Electives – IS106, IS132, IS141, IS210, IS215, IS228, IS234, IS241, IS243, IS245, IS260, IS262, ENGR190, CS211, MATH142, MATH151, CMST227

Information Systems Emphasis requires completion of the following classes with a minimum of 2.5 GPA -

IS106, IS210, IS228. IS260, IS262

Cyber Defender Emphasis requires completion of the following classes with a minimum of 2.5 GPA -

IS141, IS234, IS241, IS243, IS245

Cyber Operations Emphasis requires completion of the following classes with a minimum of 2.5 GPA -

IS215, IS234, IS245, CS211, MATH151

Starts

Fall, Winter

*Disclaimer: The college cannot guarantee courses will be offered* in *the quarters indicated. During the period this* guide is in *circulation, there may be curriculum revisions and program changes. Students are responsible for consulting the appropriate academic unit or adviser for more current and specific information. The information* in *this* guide is *subject to change and does not constitute an agreement between the college and the student.*