# Information Systems

## Associate in Science Degree

Programs **22300**
**22310**
**22330**
CIP 110201

The Information Systems A.S. degree program, based on Association for Computing Machinery guidelines, prepares students for transfer to business-oriented or technically-oriented degree programs at four-year colleges and universities at the junior level. It provides a mix of information technology and business courses that represent the first two years of the typical bachelor's degree program.

Some of the available careers for graduates of associated four-year degree programs include database administrator, records manager, information specialist, business applications programmer, information systems analyst, business process specialist, and systems sales associate.

Successful graduates will be able to:

- transfer to a bachelor's degree program at the junior level;
- explain, interpret, and develop computing practices and procedures that are used in an information systems department;
- create and use printed and online documentation;
- understand basic business organization, functions, and processes;
- describe, understand, and apply network topologies, protocols, and standards;
- determine the feasibility of a proposed computer system, estimate its cost, plan its implementation, and manage the project;
- design, program, implement, test, and document a relatively complex computer application or website using a modern programming language;
- employ problem-solving skills to troubleshoot and correct problems;
- work effectively as individuals and in workgroups to install and implement complex integrated information systems;
- communicate effectively in writing and in oral presentations in a technical or business environment.

Admission to this degree program requires a high school diploma or its equivalent, at least two years of high school mathematics (including analytic geometry and trigonometry), and basic computer literacy. Applicants must demonstrate competency in English, reading, and mathematics as determined by placement testing. Individuals who do not meet these admission requirements should plan their curriculum with an IT faculty advisor.

Students are encouraged to plan their transfer option early in their studies. Topics covered in IST 102 and 103 during the freshman year introduce students to careers and educational requirements in the field of Information Technology. Such discussions help students in considering transfer plans.

### A.S. Core Curriculum

| Code | | Course (lecture/lab hours) | Credits |
|---|---|---|---|
| ENG | 101 | English Composition I (3/0) | 3 |
| IST | 103 | Computer Concepts with Programming and Productivity Software (2/4)[1] | 3-4 |
| NET | 102 | Introduction to PC Hardware and Software (2/3) | 3 |
| HPE | 110 | Concepts of Health and Fitness (1/2)† | 2 |
| — | — | **Concentration elective**[2] | 3 |
| CMN | 111 | Speech: Human Communication (3/0)[3] | 3 |
| ENG | 102 | English Composition II (3/0) | 3 |
| MAT | 135 | Intermediate Algebra with Applications (4/0)[4] | 4 |
| NET | 104 | Fundamentals of Computer Networks (2/2) | 3 |
| IST | — | Programming elective (2/2)[5] | 3 |
| — | — | **Concentration elective**[2] | 3 |
| BUS | 205 | Business Statistics (3/0)[6] | 3 |
| IST | 253 | Database Concepts (2/2) | 3 |
| IST | — | Programming elective (2/2)[5] | 3 |
| — | — | Laboratory Science elective | 3-4 |
| — | — | General Education elective[7] | 3 |
| — | — | Cooperative Education or Technical elective[2,8] | 2-3 |
| — | — | General Education elective[7] | 3-4 |
| — | — | General Education elective[7] | 3 |
| — | — | General Education elective[7] | 3 |
| — | — | **Concentration elective**[2] | 3 |
| | | | 62-66 |

[1] Students may substitute IST 102 if they pass a screening test in Microsoft Office, or IST 101 if they enroll in IST 109.

[2] Select Concentration and Technical electives with an IT faculty advisor based on academic plans.

[3] Students may substitute CMN 112.

[4] Students may substitute a higher-level mathematics course.

[5] Select an introductory and an intermediate programming language in one language, such as Visual Basic (IST 123/223), Java (IST 137/238), C# (IST 129/229), or website programming (IST 145/245).

[6] Students may substitute MAT 149, 151, 200, or 201.

[7] Students should select the four General Education electives with an IT faculty advisor, after determining transfer objectives:
- one must be from the Humanities category of General Education courses
- one must be from the Social Science category
- one must be from either Humanities, Social Science, or Historical Perspective categories
- one may be from any category of General Education courses

[8] Select from among IST 251, 259, 297, or 298; or any 200-level ACC, BUS, IST, MKT, or NET course with the approval of an IT faculty advisor.

†HPE 111 is an acceptable alternative.

### Management Information Systems concentration

| | | | |
|---|---|---|---|
| BUS | 210 | Principles of Management (3/0) | 3 |
| BUS | 230 | Global Environment of Business (3/0) | 3 |
| MKT | 101 | Principles of Marketing (3/0) | 3 |

### Computer Information Systems concentration

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|---|---|---|---|
| IST | 143 | HTML and Website Hosting (3/2) | 4 |
| IST | 145 | Scripting for the World Wide Web (2/2) | 3 |
| IST | 251 | Management of Computer Technology (2/2) | 3 |

**NOTE:** All program listings are subject to periodic updates. Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**