INFORMATION TECHNOLOGY A.A.S.

Offered at these campuses:

- South Campus (Orchard Park)

Computers are an integral part of everyday life at home, business and school. Our information society is in constant demand of individuals who can meet the needs of users within an organization through the selection, creation, application, integration and administration of computing technologies. The Information Technology Associate in Applied Science degree provides students with the skills needed to succeed in today's digital world.

During the first year of study, Information Technology Program students will acquire a broad business and real world perspective of information technology, strong analytical and critical thinking skills, knowledge of data design and data management principles and knowledge of basic programming and computer logic principles. These skills will provide students with the foundation needed to advance to their second year of study. In the second year of the program, students will choose one of the following five areas to specialize: CyberSecurity, Management Information Systems [MIS], Networking, Oracle Academy Database, Programming.

PROGRAM COMPETENCIES

Upon completion of this program, the graduate will be able to:

- apply analytical, critical thinking and problem solving skills as they relate to information technology;
- explain and discuss the impact of a broad business and real world perspective of information technology, both in the workplace and society;
- apply data design and data management principles to businesses’ informational needs;
- demonstrate knowledge of basic programming principles;
- apply systems development lifecycle methodologies to Information Technology project management tasks;
- illustrate an understanding of computer hardware and software; networking; security; data; e-commerce; management information systems; and legal, ethical and policy issues;
- design effective and usable IT-based solutions and integrate those components into the user environment;
- identify and evaluate current and emerging technologies and assess their applicability to address the users’ needs; and
- communicate effectively and efficiently with clients, users and peers both verbally and in writing, using appropriate terminology.

CURRICULUM

Total Degree Credits: 60.0

FIRST YEAR, FALL SEMESTER

- DA 103 Introduction to Information Technology .......................... 4 cr
- DA 150 Programming Visual Basic .................................................. 4 cr
- EN 100 or EN 110 based on departmental advisement ..................... 3 cr
- MT 125 College Mathematics or an IT Approved Math Elective ................. 3 cr

SECOND YEAR, SPRING SEMESTER

- DA 261 Database Concepts ............................................................... 4 cr
- EN 111, EN 101 or EN 102 based on the departmental advisement .......... 3 cr
- Concentration Course(s) .................................................................. 3-4 cr

SECOND YEAR, FALL SEMESTER

- MT 143 Introductory Statistics I ......................................................... 4 cr
- Concentration Course(s) ................................................................. 3-4 cr
- Concentration Course(s) ................................................................. 3-4 cr
- Information Technology Elective ....................................................... 3-4 cr
- SUNY General Education Elective – Social Science .......................... 3 cr

CAREER PATHS

Technical support, programming, networking, systems analysis and design, information security, geographic information systems, business analysis.

Information Technology Approved Math Electives

- MT 126 College Mathematics II ......................................................... 4 cr
- MT 167 Discrete Mathematics .......................................................... 4 cr
- MT 180 Pre-Calculus Mathematics .................................................... 4 cr

CyberSecurity Concentration

- DA 202 Ethical, Legal and Regulatory Framework of ISS .................. 3 cr
- DA 204 Digital Forensics ................................................................. 4 cr
- TE 180 IT Essentials I ................................................................. 3 cr
- TE 181 IT Essentials II ................................................................. 3 cr

In addition, select one (1) from the following:

- CR 150 Introduction to Criminal Justice ........................................... 3 cr
- CR 160 Criminology ................................................................. 3 cr
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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CR 170</td>
<td>Criminal Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>TE 185</td>
<td>Network Fundamentals</td>
<td>3 cr</td>
</tr>
<tr>
<td>TE 270</td>
<td>Routing and Switching</td>
<td>3 cr</td>
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**Management Information Systems (MIS) Concentration**

- DA 190 Introduction to Management Information Systems ... 4 cr
- DA 290 Management for Systems Analysts ....................... 4 cr
- BU 121 Accounting Principles I ................................ 4 cr

In addition, select two (2) from the following:

- BU 122 Accounting Principles II .................................. 4 cr
- BU 221 Computerized Accounting .................................... 4 cr
- BU 231 Business Systems ................................................ 3 cr
- BU 243 Entrepreneurship ................................................ 3 cr
- BU 261 Business Law I .................................................. 3 cr
- BU 282 Business Law II .................................................. 3 cr
- EN 114 Public Speaking .................................................. 3 cr

**Oracle Academy Database Concentration**

- DA 160 Oracle Database Programming I .............................. 3 cr
- DA 161 Oracle Database Programming II ............................. 3 cr
- DA 262 Oracle PL/SQL Programming I .................................. 3 cr
- DA 263 Oracle PL/SQL Programming II ................................ 3 cr

In addition, select one (1) of the following:

- DA 151 Java Fundamentals ............................................... 3 cr
- DA 251 Java Programming .................................................. 3 cr

Note: At the completion of DA160 and DA161 students will be prepared for the first part of the Oracle Certified Associate (OCA) exam or can take the Oracle Database SQL Expert certification exam. At the completion of DA262 and DA263 students can take the second and final exam for Oracle Certified Associate.

**Networking Concentration**

- TE 180 IT Essentials I .................................................... 3 cr
- TE 181 IT Essentials II .................................................... 3 cr
- TE 185 Network Fundamentals ............................................. 3 cr
- TE 270 Routing and Switching I .......................................... 3 cr

In addition, select one (1) from the following:

- TE 271 Routing and Switching II ......................................... 3 cr
- TE 272 Accessing the WAN .................................................. 3 cr

**Programming Concentration**

- DA 151 Java Fundamentals ................................................ 3 cr
- DA 251 Java Programming .................................................. 3 cr
- DA 255 Advanced Visual Basic ............................................. 4 cr

In addition, select two (2) from the following:

- DA 161 Oracle Database Programming II .............................. 3 cr
- DA 262 Oracle PL/SQL Programming I .................................. 3 cr
- DA 263 Oracle PL/SQL Programming II ................................ 3 cr

**CONTACT**

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