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 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:

- Cyber Security (Distance)
- Management Information Systems [MIS]
- Networking (Distance)
- Oracle Academy Database
- Programming

* Not all courses available at all campuses. Check with your adviser to ensure course availability.

**CAREER PATHS**

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

crc.edu

**PROGRAM COMPETENCIES**

Upon graduation with an Associate in Applied Science degree in Information Technology, 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 life-cycle 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 - 64.5**

**FIRST YEAR, FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DA 103</td>
<td>Introduction to Information Technology</td>
<td>4 cr</td>
</tr>
<tr>
<td>DA 150</td>
<td>Programming Visual Basic</td>
<td>4 cr</td>
</tr>
<tr>
<td>EN 100</td>
<td>Composition I: Rhetorical Strategies</td>
<td>3 cr</td>
</tr>
<tr>
<td>MT 125</td>
<td>College Mathematics</td>
<td>4 cr or</td>
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<tr>
<td></td>
<td>an IT approved Math elective</td>
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**FIRST YEAR, SPRING SEMESTER**

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<tbody>
<tr>
<td>DA 240</td>
<td>Systems Analysis with Respect to Business Applications</td>
<td>4 cr</td>
</tr>
<tr>
<td>DA 261</td>
<td>Database Concepts</td>
<td>4 cr</td>
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<tr>
<td>EN 102</td>
<td>Composition for the STEM Disciplines</td>
<td>3 cr</td>
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<tr>
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<td>Concentration Course</td>
<td>3-4 cr</td>
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**SECOND YEAR, FALL SEMESTER**

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<tr>
<td>MT 143</td>
<td>Introductory Statistics I</td>
<td>4 cr</td>
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<td>Concentration Course</td>
<td>3-4 cr</td>
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<tr>
<td></td>
<td>Concentration Course</td>
<td>3-4 cr</td>
</tr>
<tr>
<td></td>
<td>Information Technology Elective</td>
<td>3-4 cr</td>
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<tr>
<td></td>
<td>Social Science Elective</td>
<td>3 cr</td>
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<td>(PS100 or SO100 recommended)</td>
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**SECOND YEAR, SPRING SEMESTER**

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<th>Course Code</th>
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<tbody>
<tr>
<td></td>
<td>Concentration Course</td>
<td>3-4 cr</td>
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<tr>
<td></td>
<td>Concentration Course</td>
<td>3-4 cr</td>
</tr>
<tr>
<td></td>
<td>Information Technology Elective</td>
<td>3-4 cr</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts Elective</td>
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<tr>
<td></td>
<td>(PY102 recommended)</td>
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<tr>
<td></td>
<td>Social Science Elective</td>
<td>3 cr</td>
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Note:
This is a recommended sequence. Student should consult his/her academic adviser prior to registering.

**Information Technology Electives:**

Any DA (Information Technology), CS (Computer Science), or Cisco Academy course not included as part of your concentration. Other courses must be approved by your Academic Adviser.
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:
CyberSecurity Concentration Courses:
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 from the following:
TE 185  Network Fundamentals .......................................... 3 cr
TE 270  Routing and Switching I ......................................... 3 cr
TE 271  Routing and Switching II ......................................... 3 cr
TE 272  Accessing the WAN .............................................. 3 cr
TE 275  CCNA Security .................................................... 3 cr

Management Information Systems (MIS) Concentration:
Management Information Systems (MIS) Concentration Courses:
DA 190  Introduction to Management Information Systems (MIS) ... 4 cr
DA 290  Management for Systems Analysts .............................. 4 cr
BU 121  Accounting Principles I .......................................... 4 cr
In addition, select two from the following:
BU 122  Accounting Principles II ......................................... 4 cr
BU 221  Computerized Accounting ....................................... 4 cr
BU 231  Business Systems .................................................. 3 cr

Oracle Academy Database Concentration:
Oracle Academy Database Concentration Courses:
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 of the following:
DA 161  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:
Networking Concentration Courses:
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 from the following:
TE 271  Routing and Switching II ......................................... 3 cr
TE 272  Accessing the WAN .............................................. 3 cr

Programming Concentration:
Programming Concentration Courses:
DA 151  Java Fundamentals .............................................. 3 cr
DA 251  Java Programming ............................................... 3 cr
CS 103  Web Development and Programming Fundamentals .... 3 cr
In addition, select two 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
CS 111  Introduction to Computer Science ......................... 3.5 cr
CS 121  Computer Science I ............................................ 4 cr
CS 132  Computer Science II ............................................ 4 cr
CS 210  Programming in C++ ........................................... 3 cr

CONTACT
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