

## Information Systems Technology Overview

### Associate of Applied Science

The Associate of Applied Science (AAS) degree program enables students to concentrate in one of the following areas:

Computer Applications  
Computer Programmer  
Cyber Security  
Network Administration  
Web Development

Students select from ONE of the IST Career Studies Certificate programs listed above to define an area of concentration for the Associate of Applied Science degree.

**PURPOSE:** The purpose of the Information Systems Technology AAS degree is to develop and/or enhance the information technology skills and knowledge of students by providing training in the latest technology that businesses demand. This program is for students who seek employment in business information systems, who desire to update their information technology skills for their current job, or who desire to improve their technology skills and knowledge to help prepare for industry certifications.

**TRANSFER INFORMATION:** Four-year college and university transfer opportunities for this degree, if existing, are usually very specific in nature. Students interested in IT Management or Information Security at the University of Richmond School of Professional and Continuing Studies or Occupational and Technical Studies at Old Dominion University should consult their faculty advisor upon program entry for further guidance.

#### OCCUPATIONAL OBJECTIVES:

**Computer Applications:** Computer Support Specialist; Computer Technician; Help Desk Analyst; Information Technology Specialist (IT Specialist)

**Computer Programmer:** Analyst Programmer; Applications Developer; Computer Programmer; Computer Programmer Analyst; Internet Programmer; Programmer; Programmer Analyst; Software Developer; Web Programmer

**Cyber Security:** Help Desk Specialist; Entry-Level Information Security Analyst; Entry-Level Cyber Security Specialist

**Network Administration:** Hardware Technician; Entry-Level Help Desk Technician; and Entry-Level Technical Support

**Web Development:** Web Designer; Web Developer; Webmaster

**For more occupational information check out O\*Net** (<https://www.onetonline.org/>).

**ADMISSION REQUIREMENTS:** General college curricular admission

#### PROGRAM NOTES:

Students must attain the grade of "C" or higher in IT courses taken for this degree. Students must get approval from the

appropriate IT program head or their academic advisor in choosing program electives or substitutions. Students should complete SDV 100 during their first semester of study at the college.

All new students should take the English and mathematics placement tests immediately after applying to the college and meet with an IT faculty advisor in your first semester.

IT courses used for this program may not be more than 10 years old.

**COMPUTER COMPETENCY REQUIREMENT:** Students in this program will meet the college's computer competency requirement by successfully completing ITE 115. Students can also meet this requirement by successfully passing the college's computer competency exam, administered in the testing centers on each campus, in which case they will receive college credit for ITE 115. Students not passing the computer competency exam may retake the exam only once.

# REYNOLDS COMMUNITY COLLEGE

## Roadmap

Information Systems Technology Associate of Applied Science Degree

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
SDV 100	College Success Skills	1	0	1
ENG 111	College Composition I	3	0	3
MTH 130 <sup>2</sup>	Fundamentals of Reasoning	3	0	3
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
ITE 221	PC Hardware and OS Architecture	4	0	4
IT Elective <sup>3,5</sup>	IT Concentration Elective	3-4	0	3-4
<b>TOTAL</b>		<b>17-18</b>	<b>0</b>	<b>17-18</b>
COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ENG 112	College Composition II	3	0	3
IT Elective <sup>3</sup>	IT Concentration Elective	3-4	0	3-4
ACC 117 <sup>1</sup>	Essentials of Accounting	3	0	3
IT Elective <sup>3</sup>	IT Concentration Elective	3-4	0	3-4
ITN 101	Introduction to Network Concepts	3	0	3
<b>TOTAL</b>		<b>15-17</b>	<b>0</b>	<b>15-17</b>
IT Elective <sup>3</sup>	IT Concentration Elective	3-4	0	3-4
ITN 260	Network Security Basics	3	0	3
IT Elective <sup>3</sup>	IT Concentration Elective	3-4	0	3-4
IT Elective <sup>4</sup>	IT Elective	3-4	0	3-4
ITP 251	Systems Analysis and Design	3	0	3
<b>TOTAL</b>		<b>15-18</b>	<b>0</b>	<b>15-18</b>
<sup>6</sup>	Personal Wellness Elective	1	0-2	1
<sup>6</sup>	Humanities/Fine Arts Electives	3	0	3
ECO 120 <sup>7</sup>	Survey of Economics	3	0	3
ITN 257	Cloud Computing: Infrastructure and Services	3	0	3
IT_ 298	Seminar and Project: Capstone Course (based on concentration)	4	0	4
<b>TOTAL</b>		<b>14</b>	<b>0-2</b>	<b>14</b>

**Total Minimum Credits for AAS Degree in Information Systems Technology 61**

<sup>1</sup>ACC 211 may be substituted for ACC 117.

<sup>2</sup>Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

<sup>3</sup>Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

<sup>4</sup>An IT Elective can be any IT course that is not required in the chosen Career Studies Certificate.

<sup>5</sup>Students in the Computer Programmer concentration should take ITP 136 (C# Programming I) in the first semester in order to complete the sequence of ITP 136, ITP 236, ITP 244, ITP 298 in the four semesters.

<sup>6</sup>A list of approved general education electives (humanities/fine arts and personal wellness) is provided in the General Education section of the catalog under Curriculum Planning and Design.

<sup>7</sup>ECO 201 may be substituted for ECO 120.

### Select one Career Studies Certificate to fulfill the IT Concentration Electives for the Associate of Applied Science Degree

#### CURRICULUM:

Computer Applications Career Studies Certificate

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
ITE 130	Introduction to Internet Services	3	0	3
ITE 140	Spreadsheet Software	3	0	3
ITE 150	Desktop Database Software	3	0	3
ITE 221	PC Hardware and OS Architecture	4	0	4
ITD 110	Web Page Design I	3	0	3
ITD 112	Designing Web Page Graphics	3	0	3
ITE 298	Seminar and Project: Computer Applications Capstone	4	0	4
<b>TOTAL</b>		<b>26</b>	<b>0</b>	<b>26</b>

#### CURRICULUM:

Computer Programmer Career Studies Certificate

## Associate Degrees & Certificates

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
ITP 136	C# Programming I	4	0	4
ITP 236	C# Programming II	4	0	4
ITP 251	Systems Analysis and Design	3	0	3
ITD 130	Database Fundamentals	4	0	4
ITD 132	Structured Query Language (T-SQL)	3	0	3
ITP 244	ASP.Net-Server Side Programming	4	0	4
ITP 298	Seminar and Project: Programming Capstone	4	0	4
<b>TOTAL</b>		<b>29</b>	<b>0</b>	<b>29</b>

### CURRICULUM:

Cyber Security Career Studies Certificate

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ITE 221	PC Hardware And OS Architecture	4	0	4
ITN 101	Introduction to Network Concepts	3	0	3
ITN 260	Network Security Basics	3	0	3
ITN 261	Network Attacks, Computer Crime, and Hacking	4	0	4
ITN 262	Network Communication, Security, and Authentication	4	0	4
ITN 263	Internet/Intranet Firewalls and E-Commerce Security	4	0	4
ITN 276	Computer Forensics I	3	0	3
ITN 298	Seminar and Project: Networking Capstone	4	0	4
<b>TOTAL</b>		<b>29</b>	<b>0</b>	<b>29</b>

### CURRICULUM:

Network Administration Career Studies Certificate

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ITE 221	PC Hardware and OS Architecture	4	0	4
ITN 101	Introduction to	3	0	3

Network Concepts		LEC. HRS.	LAB. HRS.	CRS. CRE.
ITN 171	UNIX I	3	0	3
ITN 110	Client Operating Systems	4	0	4
ITN 111	Server Administration	4	0	4
ITN 260	Network Security Basics	3	0	3
ITN 254	Virtual Infrastructure: Installation and Configuration	4	0	4
ITN 298	Seminar and Project: Networking Capstone	4	0	4
<b>TOTAL</b>		<b>29</b>	<b>0</b>	<b>29</b>

### CURRICULUM:

Web Development Career Studies Certificate

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
ITE 221	PC Hardware and OS Architecture	4	0	4
ITD 110	Web Page Design I	3	0	3
ITD 112	Designing Web Page Graphics	3	0	3
ITD 130	Database Fundamentals	4	0	4
ITD 212	Interactive Web Design	4	0	4
ITD 210	Web Page Design II	4	0	4
ITD 298	Seminar and Project: Web Design Capstone	4	0	4
<b>TOTAL</b>		<b>29</b>	<b>0</b>	<b>29</b>

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