

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:

Cloud Computing
Computer Applications
Computer Applications Fundamentals
Computer Programmer
Cyber Security
Network Administration Fundamentals
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:

Cloud Computing: Entry-level Cloud System Administrators; Cyber Information Security Specialists; Programmers; Developers

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

Computer Applications Fundamentals: Computer Support Specialist; Computer Technician; Help Desk Analyst; Information Technology Clerks.

Computer Programmer: Entry-Level Computer Programmer Analyst; Software Developer; Web Programmer

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

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

Web Development: Web Designer; Web Developer

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 meet with an Information Systems Technology faculty advisor in the first semester.

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

CREDIT FOR PRIOR LEARNING: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

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

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	ITE 115 ¹	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	^{2,3}	IT Concentration Elective	3-4
6	^{2,3}	IT Concentration Elective	3-4
7	ITN 101	Introduction to Network Concepts	3
8	ITN 260	Network Security Basics	3
9	^{2,3}	IT Concentration Elective	3-4
10	ITP 251	Systems Analysis and Design	3
11	^{2,3,4}	IT Concentration Elective/IT Elective	3-4
12	^{2,3,4}	IT Concentration Elective/IT Elective	3-4
13	^{2,3}	IT Concentration Elective	3-4
14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	MTH 130 ⁵	Fundamentals of Reasoning	3
16	ENG 111	College Composition I	3
17	⁶	Personal Wellness Elective	1
18	⁶	Humanities/Fine Arts	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	IT_ 298	Seminar and Project: Capstone Course (based on concentration)	4
TOTAL	Information Systems Technology Associate of Applied Science Degree	63-69	

02.27.20

Students are strongly encouraged to complete their SDV requirement first.

¹ Students with good computer skills may seek to satisfy this requirement by internal exam.

² Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

³ 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 245, ITP 298 in four semesters.

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

⁵ Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

⁶ The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts/Literature course.

See http://www.reynolds.edu/curriculum/generaled_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

CURRICULUM:

Information Systems Technology Associate of Applied Science Degree with Cloud Computing Concentration

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	ITE 115 ¹	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	ITP 100 ^{2,3}	Software Design (IT Concentration Elective)	3
6	ITN 170 ^{2,3}	Linux Administration (IT Concentration Elective)	3
7	ITN 101	Introduction to Network Concepts (IT Concentration Elective)	3

Associate Degrees & Certificates

8	ITN 260	Network Security Basics	3
9	ITN 200 ^{2,3}	Administration of Network Resources (IT Concentration Elective)	3
10	ITP 251	Systems Analysis and Design	3
11	IT_ Elective ^{2,3,4}		3-4
12	IT_ Elective ^{2,3,4}		3-4
13	ITN 254 ^{2,3,4}	Virtual Infrastructure: Installation and Configuration (IT Concentration Elective)	4
14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	MTH 130 ⁵	Fundamentals of Reasoning	3
16	ENG 111	College Composition I	3
17	_____ ⁶	Personal Wellness Elective	1
18	_____ ⁷	Humanities/Fine Arts Elective	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	ITN 298	Seminar and Project: Network Administration Capstone Course	4
TOTAL	Information Systems Technology Associate of Applied Science Degree with Cloud Computing Concentration		64-66

01.21.21

Students are strongly encouraged to complete their SDV requirement first.

¹ Students with good computer skills may seek to satisfy this requirement by internal exam.

² Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

³ 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 245, ITP 298 in four semesters.

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

⁵ Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

⁶ The Personal Wellness Elective requirement must be satisfied by completing a 1-credit Personal Wellness course.

⁷ The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts/Literature course.

See http://www.reynolds.edu/curriculum/generaled_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

CURRICULUM: Information Systems Technology Associate of Applied Science Degree with Computer Applications Concentration

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	ITE 115 ¹	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	ITP 100 ^{2,3}	Software Design (IT Concentration Elective)	3
6	ITE 140 ^{2,3}	Spreadsheet Software (IT Concentration Elective)	3
7	ITN 101	Introduction to Network Concepts	3
8	ITN 260	Network Security Basics	3
9	ITE 150 ^{2,3}	Desktop Database Software (IT Concentration Elective)	3
10	ITP 251	Systems Analysis and Design	3
11	ITD 110 ^{2,3}	Web Page Design I (IT Concentration Elective)	3
12	_____ ⁴	IT Elective	3-4
13	ITE 130	Introduction to Internet Services (IT Concentration Elective)	3
14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	MTH 130 ⁵	Fundamentals of Reasoning	3

REYNOLDS COMMUNITY COLLEGE

16	ENG 111	College Composition I	3
17	_____ ⁶	Personal Wellness Elective	1
18	_____ ⁷	Humanities/Fine Arts	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	ITE 298	Seminar and Project: Computer Applications Capstone Course	4
TOTAL	Information Systems Technology Associate of Applied Science Degree with Computer Applications Concentration		63-64

02.27.20

Students are strongly encouraged to complete their SDV requirement first.

¹ Students with good computer skills may seek to satisfy this requirement by internal exam.

² Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

³ 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 245, ITP 298 in four semesters.

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

⁵ Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

⁶ The Personal Wellness Elective requirement must be satisfied by completing a 1-credit Personal Wellness course.

⁷ The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts Literature course.

See http://www.reynolds.edu/curriculum/generaled_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

CURRICULUM:

Information Systems Technology Associate of Applied Science Degree with Computer Programmer Concentration

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	_____ ¹ ITE 115	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	_____ ^{2,3} ITP 100	Software Design (IT Concentration Elective)	3
6	_____ ^{2,3} ITP 136	C# Programming I (IT Concentration Elective)	4
7	ITN 101	Introduction to Network Concepts	3
8	ITN 260	Network Security Basics	3
9	_____ ^{2,3} ITD 130	Database Fundamentals (IT Concentration Elective)	4
10	ITP 251	Systems Analysis and Design	3
11	_____ ^{2,3} ITP 236	C# Programming II (IT Concentration Elective)	4
12	_____ ^{2,3} ITD 132	Structured Query Language (T-SQL) (IT Concentration Elective)	3
13	_____ ^{2,3} ITP 245	Developing User Interfaces (IT Concentration Elective)	4
14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	_____ ⁴ MTH 130	Fundamentals of Reasoning	3
16	ENG 111	College Composition I	3
17	_____ ⁵	Personal Wellness Elective	1
18	_____ ⁶	Humanities/Fine Arts	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	ITP 298	Seminar and Project: Programming Capstone Course	4
TOTAL	Information Systems Technology Associate of Applied Science Degree with Computer Programmer Concentration		67

Associate Degrees & Certificates

02.27.20

Students are strongly encouraged to complete their SDV requirement first.

¹ Students with good computer skills may seek to satisfy this requirement by internal exam.

² Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

³ 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 245, ITP 298 in four semesters.

⁴ Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

⁵ The Personal Wellness Elective requirement must be satisfied by completing a 1-credit Personal Wellness course.

⁶ The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts course.

See http://www.reynolds.edu/curriculum/generated_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

CURRICULUM:

Information Systems Technology Associate of Applied Science Degree with Cyber Security Concentration

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	ITE 115 ¹	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	ITN 261 ^{2,3}	Network Attacks, Computer Crime, and Hacking (IT Concentration Elective)	4

6	ITN 262 ^{2,3}	Network Communication, Security, and Authentication (IT Concentration Elective)	4
7	ITN 101	Introduction to Network Concepts	3
8	ITN 260	Network Security Basics	3
9	ITN 263 ^{2,3}	Internet/Intranet Firewalls and E-Commerce Security (IT Concentration Elective)	4
10	ITP 251	Systems Analysis and Design	3
11	⁴	IT Elective	3-4
12	⁴	IT Elective	3-4
13	ITN 276 ^{2,3}	Computer Forensics I (IT Concentration Elective)	3
14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	MTH 130 ⁵	Fundamentals of Reasoning	3
16	ENG 111	College Composition I	3
17	⁶	Personal Wellness Elective	1
18	⁷	Humanities/Fine Arts	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	ITN 298	Seminar and Project: Network Administration Capstone Course	4
TOTAL	Information Systems Technology Associate of Applied Science Degree with Cyber Security Concentration		66-68

02.27.20

Students are strongly encouraged to complete their SDV requirement first.

¹ Students with good computer skills may seek to satisfy this requirement by internal exam.

² Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

³ 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 245, ITP 298 in four semesters.

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

REYNOLDS COMMUNITY COLLEGE

⁵ Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

⁶ The Personal Wellness Elective requirement must be satisfied by completing a 1-credit Personal Wellness course.

⁷ The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts course.

See http://www.reynolds.edu/curriculum/generaled_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

CURRICULUM:

Information Systems Technology Associate of Applied Science Degree with Network Administration Fundamentals Concentration

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	ITE 115 ¹	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	ITP 100 ^{2,3}	Software Design (IT Concentration Elective)	3
6	ITN 170 ^{2,3}	Linux System Administration (IT Concentration Elective)	3
7	ITN 101	Introduction to Network Concepts	3
8	ITN 260	Network Security Basics	3
9	ITN 200 ^{2,3}	Administration of Network Resources (IT Concentration Elective)	3
10	ITP 251	Systems Analysis and Design	3
11	_____ ⁴	IT Elective	3-4
12	_____ ⁴	IT Elective	3-4
13	ITN 254 ^{2,3}	Virtual Infrastructure: Installation and Configuration (IT Concentration Elective)	4

14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	MTH 130 ⁵	Fundamentals of Reasoning	3
16	ENG 111	College Composition I	3
17	_____ ⁶	Personal Wellness Elective	1
18	_____ ⁷	Humanities/Fine Arts	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	ITN 298	Seminar and Project: Network Administration Capstone Course	4
TOTAL Information Systems Technology Associate of Applied Science Degree with Network Administration Concentration			64-66

02.27.20

Students are strongly encouraged to complete their SDV requirement first.

¹ Students with good computer skills may seek to satisfy this requirement by internal exam.

² Students will select IT Concentration Electives based on the chosen Career Studies Certificate.

³ 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 245, ITP 298 in four semesters.

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

⁵ Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).

⁶ The Personal Wellness Elective requirement must be satisfied by completing a 1-credit Personal Wellness course.

⁷ The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts course.

See http://www.reynolds.edu/curriculum/generaled_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Associate Degrees & Certificates

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.

CURRICULUM:
Information Systems Technology Associate of Applied Science Degree with Web Development Concentration

Order	Course	Title	Credits
1	SDV 100	College Success Skills	1
2	ITE 115 ¹	Introduction to Computer Applications and Concepts	3
3	ITN 106	Microcomputer Operating Systems	3
4	ITN 107	Personal Computer Hardware and Troubleshooting	3
5	ITD 110 ^{2,3}	Web Page Design I (IT concentration Elective)	3
6	ITD 112 ^{2,3}	Designing Web Page Graphics (IT concentration Elective)	3
7	ITN 101	Introduction to Network Concepts	3
8	ITN 260	Network Security Basics	3
9	ITD 130 ^{2,3}	Database Fundamentals (IT Concentration Elective)	4
10	ITP 251	Systems Analysis and Design	3
11	ITD 210 ^{2,3}	Web Page Design II (IT Concentration Elective)	4
12	⁴	IT Elective	3-4
13	ITD 212 ^{2,3}	Interactive Web Design (IT Concentration Elective)	4
14	ITN 257	Cloud Computing: Infrastructure and Services	3
15	MTH 130 ⁵	Fundamentals of Reasoning	3
16	ENG 111	College Composition I	3
17	⁶	Personal Wellness Elective	1
18	⁷	Humanities/Fine Arts	3
19	ECO 120	Survey of Economics	3
20	ENG 112	College Composition II	3
21	ACC 117	Essentials of Accounting	3
22	ITD 298	Seminar and Project: Web Development Capstone Course	4
TOTAL	Information Systems Technology Associate of Applied Science Degree with Web Development Concentration		66

02.27.20

Students are strongly encouraged to complete their SDV requirement first.

- 1 Students with good computer skills may seek to satisfy this requirement by internal exam.
- 2 Students will select IT Concentration Electives based on the chosen Career Studies Certificate.
- 3 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 245, ITP 298 in four semesters.
- 4 An IT Elective can be any IT course that is not required in the chosen Career Studies Certificate.
- 5 Students considering transferring to a four-year college should take a transfer mathematics sequence (consult advisor).
- 6 The Personal Wellness Elective requirement must be satisfied by completing a 1-credit Personal Wellness course.
- 7 The Humanities Elective requirement must be satisfied by completing a 3-credit Humanities/Fine Arts course.

See http://www.reynolds.edu/curriculum/generaled_electives.pdf for a list of approved general education and personal wellness electives.

All information technology courses must be completed within ten years of a student's graduation date.

Students should regularly meet with their faculty advisor and check their advisement report in SIS.

Credit for Prior Learning: Students in this program may be eligible for credit for prior learning. See an Information Systems Technology (IST) academic advisor for further information.