

## **Information Systems Technology Associate of Applied Science**

### **Specializations:**

- Computer Programmer
- Microcomputer Technical Support (Networking)
- Microcomputer Applications (Administrative/Office Applications)
- Internet Applications Development (Web Design)

**Purpose:** The Information Systems Technology major is designed for persons who are seeking employment in business information technology, for those who desire to update their computer skills and knowledge for their current job, and for those non-information technology majors who wish to enhance their computer skills and knowledge relating to their fields of study.

**Transfer Information:** Four-year college and university transfer opportunities for AAS degrees, if existing, are usually very specific in nature. The Information Systems Technology AAS degree program has formal transfer articulation agreements with the Bachelor of Applied Studies degree in Information Systems at the University of Richmond, School of Continuing Studies, and the Bachelor of Science degree in Occupational and Technical Studies through Old Dominion University Teletechnet. Transfer articulation agreements are subject to change or expiration. In addition, students may substitute some courses in the AAS degree curriculum with courses that typically transfer to senior institutions. Students interested in transferring in general or transferring under a formal articulation agreement should consult their faculty advisor upon program entry for further guidance.

**Occupational Objectives:** The Computer Programmer specialization provides knowledge and skills in computer programming and application software development that includes occupations such as computer programmer, applications programmer, programmer/analyst, internet programmer, and related computer programming occupations. The Microcomputer Technical Support (Networking) specialization provides technical knowledge and skills in computer hardware and operating systems and network operating systems such as Microsoft and Linux that include occupations such as hardware and software support technician, network specialist, help desk specialist, and related networking occupations. The Internet Applications Development (Web Design) specialization provides knowledge and skills for web page design that includes occupations such as web page designer and webmaster and related web design occupations. The Microcomputer Applications (Administrative/Office Applications) specialization provides knowledge and skills in support of office, business, or administrative procedures that include occupations such as administrative and office support specialist, information center specialist, and related office applications occupations.

**Admission Requirements:** General college curricular admission

**Program Notes:** Students should demonstrate proficiency in keyboarding before enrolling in the required Information Technology (IT) courses; otherwise, enrollment in AST 114 is required. AST 114 may be taken as a co-requisite with ITE 115. Students must attain the grade of "C" or higher in IT courses taken for this degree. Students must get approval from the program head or advisor in choosing program electives or substitutions. It is strongly recommended that students complete SDV 100, College Success Skills, by the end of the first semester of study at the college.

**Note for students in the Microcomputer Applications (Administrative/Office Applications) specialization:** Students should consult their academic advisor prior to beginning the degree. Students interested in a career related to administrative support may want to first complete the Administrative Support Technology Certificate and then enroll in the Information Systems Technology (IST) degree program. With the help of an academic advisor, most of the courses in the certificate will apply to the IST degree program.

**Note for students in the Computer Programmer specialization:** Students should consult their academic advisor prior to beginning the degree. Once students have taken ITP 120 (Java), they can then elect to continue with Java courses (ITP 220 and ITP 245) rather than continuing on with the .Net programming courses (ITP 212 or ITP 244).

All new students should take the English and mathematics placement tests immediately after applying to the college.

**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.

<b>CURRICULUM</b>				
<b>COURSE</b>	<b>TITLE</b>	<b>LEC. HRS.</b>	<b>LAB. HRS.</b>	<b>CRS. CRE.</b>
ACC 115 <sup>1</sup>	Applied Accounting	3	0	3
SDV 100	College Success Skills	1	0	1
ENG 111	College Composition I	3	0	3
MTH 120 <sup>2</sup>	Introduction to Mathematics	3	0	3
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
ITN 100	Introduction to Telecommunications	3	0	3
AST 114 <sup>3</sup>	Keyboarding for Information	0-1	0	0-1

	Processing			
	<b>TOTAL</b>	16-17	0	16-17

<b>CURRICULUM</b>				
<b>Computer Programmer Specialization</b>				
<b>COURSE</b>	<b>TITLE</b>	<b>LEC. HRS.</b>	<b>LAB. HRS.</b>	<b>CRS. CRE.</b>
ENG 112	College Composition II	3	0	3
BUS 125 <sup>2</sup>	Applied Business Mathematics	3	0	3
ITP 120	Java Programming I	4	0	4
ITD 130	Database Fundamentals	4	0	4
ITP 112 <sup>4</sup>	Visual Basic.Net I	4	0	4
	<b>TOTAL</b>	18	0	18
AST 205	Business Communications	3	0	3
BUS 220	Introduction to Business Statistics	3	0	3
ITP 212 <sup>4</sup>	Visual Basic.Net II	4	0	4
ITE 221	PC Hardware and OS Architecture	4	0	4
ITP 251	Systems Analysis and Design	3	0	3
	<b>TOTAL</b>	17	0	17
____ <sup>5</sup>	Personal Wellness Elective	0-2	0-4	2
____ <sup>5</sup>	Humanities/Fine Arts Electives	3	0	3
ECO 120 <sup>6</sup>	Survey of Economics	3	0	3
ITP 244 or IT_ ____ <sup>7</sup>	ASP.Net-Server Side Programming or Approved Information Technology Elective	3-4	0	3-4
IT_ 298 <sup>8</sup>	Seminar and Project: Capstone Course	4	0	4
	<b>TOTAL</b>	13-16	0-4	15-16
<b>Total Minimum Credits for AAS Degree in Information Systems Technology, Computer Programmer Specialization</b>				<b>66</b>

<b>CURRICULUM</b>				
<b>Microcomputer Technical Support (Networking) Specialization</b>				
<b>COURSE</b>	<b>TITLE</b>	<b>LEC. HRS.</b>	<b>LAB. HRS.</b>	<b>CRS. CRE.</b>
ENG 112	College Composition II	3	0	3
BUS 125 <sup>2</sup>	Applied Business Mathematics	3	0	3
ITN 171	UNIX I	3	0	3
ITE 221	PC Hardware and OS Architecture	4	0	4

ITN 101	Introduction to Network Concepts	4	0	4
<b>TOTAL</b>		17	0	17
AST 205	Business Communications	3	0	3
ECO 120 <sup>6</sup>	Survey of Economics	3	0	3
BUS 220	Introduction to Business Statistics	3	0	3
ITP 251	Systems Analysis and Design	3	0	3
ITN 114	Windows XP Professional	4	0	4
____ <sup>5</sup>	Personal Wellness Electives	0-2	0-4	2
<b>TOTAL</b>		16-18	0-4	18
____ <sup>5</sup>	Humanities/Fine Arts Elective	3	0	3
ITN 115	Windows 2003 Server (SER)	4	0	4
ITN 260	Network Security Basics	3	0	3
IT_ ____ <sup>7</sup>	Approved Information Technology Elective	3-4	0	3-4
IT_ 298 <sup>8</sup>	Seminar and Project: Capstone Course	4	0	4
<b>TOTAL</b>		17-18	0	17-18
<b>Total Minimum Credits for AAS Degree in Information Systems Technology, Microcomputer Technical Support (Networking) Specialization</b>				<b>68</b>

## CURRICULUM

### Microcomputer Applications (Administrative/Office Applications) Specialization

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ENG 112	College Composition II	3	0	3
BUS 125 <sup>2</sup>	Applied Business Mathematics	3	0	3
AST 141	Word Processing I	3	0	3
ITE 221	PC Hardware and OS Architecture	4	0	4
ITE 140	Spreadsheet Software	3	0	3
____ <sup>5</sup>	Personal Wellness Elective	0-2	0-4	2
<b>TOTAL</b>		16-18	0-4	18
AST 205	Business Communications	3	0	3
BUS 220	Introduction to Business Statistics	3	0	3
ECO 120 <sup>6</sup>	Survey of Economics	3	0	3
ITD 110	Web Page Design I	3	0	3

ITP 251	Systems Analysis and Design	3	0	3
<b>TOTAL</b>		15	0	15
____ <sup>5</sup>	Humanities/Fine Arts Elective	3	0	3
ITE 150	Desktop Database Software	3	0	3
ITE 215	Advanced Computer Applications and Integration	3	0	3
IT_ ____ <sup>7</sup> AST ____	Approved Information Technology or Administrative Support Technology Elective	3-4	0	3-4
____ 298	Seminar and Project: Capstone Course (IT or AST)	4	0	4
<b>TOTAL</b>		16-17	0	16-17
<b>Total Minimum Credits for AAS Degree in Information Systems Technology, Microcomputer Applications (Administrative/Office Applications) Specialization</b>				<b>65</b>

## CURRICULUM

### Internet Applications Development (Web Design) Specialization

COURSE	TITLE	LEC. HRS.	LAB. HRS.	CRS. CRE.
ENG 112	College Composition II	3	0	3
BUS 125 <sup>2</sup>	Applied Business Mathematics	3	0	3
ITD 110	Web Page Design I	3	0	3
ITD 130	Database Fundamentals	4	0	4
ITP 120	Java Programming I	4	0	4
<b>TOTAL</b>		17	0	17
AST 205	Business Communications	3	0	3
BUS 220	Applied Business Statistics	3	0	3
ECO 120 <sup>6</sup>	Survey of Economics	3	0	3
ITE 221	PC Hardware and OS Architecture	4	0	4
ITD 210	Web Page Design II	4	0	4
<b>TOTAL</b>		17	0	17
____ <sup>5</sup>	Humanities/Fine Arts Elective	3	0	3
ITP 251	Systems Analysis and Design	3	0	3
IT_ ____ <sup>7</sup>	Approved Information Technology Elective	3-4	0	3-4
IT_ 298 <sup>8</sup>	Seminar and Project: Capstone Course	4	0	4
____ <sup>5</sup>	Personal Wellness Elective	0-2	0-4	2

<b>TOTAL</b>	13-16	0-4	15-16
<b>Total Minimum Credits for AAS Degree in Information Systems Technology, Internet Applications Development (Web Design) Specialization</b>			<b>65</b>
<p><sup>1</sup>ACC 211 (transfer accounting) may be substituted for ACC 115.</p> <p><sup>2</sup>Students considering transfer to a four-year college should take a transfer mathematics sequence (consult advisor).</p> <p><sup>3</sup>See Program Notes regarding AST 114.</p> <p><sup>4</sup>Students in the Computer Programmer specialization can elect to take additional Java programming courses instead of .Net programming courses.</p> <p><sup>5</sup>A list of approved general education electives (humanities/fine arts, social/behavioral sciences, mathematics, science, and wellness) is provided in the General Education section of the catalog under Curriculum Planning and Design.</p> <p><sup>6</sup>ECO 201 (transfer economics) may be substituted for ECO 120.</p> <p><sup>7</sup>One IT elective can come from any of the program areas (ITP, ITN, ITD, ITE). It is recommended that computer programmer majors select ITP 244 as their elective.</p> <p><sup>8</sup>This course could be substituted with an upper level IT elective with approval from the academic advisor or IT program head.</p>			