Computer Information Science Degree (at a glance) – 61 hours					
Course	Name	Theory	Lab	Total	
ORT100	Orientation	1	0	1	
This course is o preparation, jo	lesigned to introduce the beginning student to college. College policies and regulations are covered as well a b application procedures, and employment interviewing techniques.	s stress manager	nent, resume	2	
ENG101	English Composition I	3	0	3	
PREREQUISITE: compositions a Composition I r	ENR 098 or appropriate English placement score. English Composition I provides instruction and practice in the nd the development of analytical and critical reading skills and basic reference and documentation skills in the nav include instruction and practice in library usage.	ne writing of at le ne composition p	ast four exte rocess. Engli	nded sh	
MTH100	Intermediate College Algebra	3	0	3	
PREREQUISITE: required. (Note exponents, pol	MTH 098 Elementary Algebra or appropriate mathematics placement score. COREQUISITE: MTH 099 Support of that MTH 099 is required for students completing MTH 098 Elementary Algebra.) This course provides a study ynomial operations, factoring polynomials, radical and rational expressions and equations and quadratic equations and expressions and equations and quadratic equations and expressions and equations and quadratic equations.	for Intermediate y of algebraic cor ations. Function	College Algeb acepts such a s and relatior	o ra, if s laws of ns are	
MTH116	Mathematical Applications	3	0	3	
This course pro	vides practical applications of mathematics and includes selected topics from consumer math, algebra, and	geometry. The co	ourse covers i	integers,	
percent, intere	st, ratio and proportion, measurement systems, linear equations, and problem solving.	2	0	2	
PHL206	ETNICS AND SOCIETY	3 ne fundamental o	U Lestions of r	3 ight and	
wrong, of hum	an rights, and of conflicting obligations. The student should be able to understand and be prepared to make	decisions in life r	egarding ethi	ical issues.	
PSY200	General Psychology	3	0	3	
The course is a	survey of the scientific study of psychological, biological, and socio-cultural factors that influence behavior a	nd mental proce	sses.		
CIS146	Microcomputer Applications	3	0	3	
This course is a such as word n	in introduction to the most common microcomputer software applications. These software packages should rocessing spreadsheets database management, and presentation software. Upon completion, s will be able	include typical fe to utilize selecte	atures of app d features of	olications, these	
packages. This	course will help prepare s for the MOS and IC ³ certification. This course or an equivalent is CORE for the AAT a	nd AAS CIS progra	ams.		
	Dresentation Crankies Coftware Applications	2	0	2	
This course pro	vides s with hands-on experience using presentation graphics software. s will develop skills common to mos	3 t presentation gr	O aphics softw	3 are by	
developing a w	ide variety of presentations. Emphasis is on planning, developing, and editing functions associated with pres	entations.	0	2	
	Database Management Software Applications	3 vet database man	U agoment cof	3 tware by	
developing a w	ide variety of databases. Emphasis is on planning, developing, and editing functions associated with databas	e management.	agement sor	tware by	
CIS149	Introduction to Computers	3	0	3	
This course is an introduction to computers and their impact on society. The course covers the development of computers, their impact on society, as well as future implications of development of computer and related communication technologies. This course introduces programming and computer operating systems. Upon completion, students will have basic knowledge of computer technology and will be able to perform basic functions with a computer system. <u>The course will help</u> prepare students for the IC ³ certification.					
CIS161	Intro to Network Communications	3	0	3	
This course is designed to introduce students to basic concepts of computer networks. Emphasis is placed on terminology and technology involved in implementing selected networked systems. The course covers various network models, topologies, communications protocols, transmission media, networking hardware and software, and network troubleshooting. Students gain hands-on experience in basic networking. <u>This course further helps prepare students for certification</u> . NOTE: This course is a suitable substitute for CIS 199. Additionally, CISCO I may be used as a suitable substitute for this course. However, CIS 161 will not substitute for CISCO I.					
CIS199	Network Communications	3	0	3	
This course is designed to introduce students to the basic concepts of computer networks. Emphasis is placed on gaining an understanding of the terminology and technology involved in implementing networked systems. The course will cover the OSI and TCP/IP network models, communications protocols, transmission media, networking hardware and software, LANs (Local Area Networks) and WANs (Wide Area Networks), Client/Server technology, the Internet, Intranets and network troubleshooting. Upon completion of the course, students will be able to design and implement a computer network. Students will create network shares, user accounts, and install print devices while ensuring basic network security. They will receive hands-on experience building a mock network in the classroom. <i>This course will society accourse for the AAT_AAS_CIS program</i> .					
CIS207	Web Development	3	0	3	
This course pro students will b	vides students with opportunities to learn Hypertext Markup Language, cascading style sheets, and Java Scri e able to use specified markup languages to develop basic Web pages.	pt. At the conclu	ision of this c	ourse,	
CIS249	Microcomputer Operating Systems	3	0	3	
This course introduces microcomputer operating systems. Topics include a description of the operating system, system commands, and effective and efficient use of the microcomputer with aid of its system programs. Upon completion, students should understand the function and role operating systems, its operational characteristics, its configuration, how to execute programs, and efficient disk and file management					
CIS268	Software Support	3	0	3	
This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. <u>The class will help to</u> <u>prepare participants for the A+ Certification sponsored by CompTIA</u> . This course is a suitable substitute for CIS 239, Networking Software. This course supports CIP Code 11.0101.					

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CIS269	Hardware Support	3	0	3		
This course pro	This course provides students with hands-on practical experience in installation and troubleshooting computer hardware. The class will help to prepare participants					
for the A+ Cert	ification sponsored by CompTIA. This is a suitable substitute for CIS 240, Networking Hardware. This support	ts CIP Codes 11.0	101.			
CIS275	Workstation Administration	3	0	3		
This course pro	ovides a study of client system administration in a network environment. Topics include installing monitorir	ig maintaining, ai	nd troublesh	ooting client		
operating syste	m software and managing hardware devices and shared resources. Students gain hands-on experience in clie	ent operating sys [.]	tem installati	on and basic		
administration	of network workstations.					
CIS276	Server Administration	3	0	3		
This course int	roduces network operating system administration. Topics included in this course are network operating sys	tem software ins	stallation, ad	ministration,		
monitoring, an	d maintenance; user, group, and computer account management; shared resource management; and serve	er hardware mar	nagement. S	tudents gain		
hands-on expe	rience in managing and maintaining a network operating system environment.					
CIS277	Network Services Administration	3	0	3		
This course pro	vides an introduction to the administration of fundamental networking services and protocols. Topics inclu	ded in this course	are implem	enting,		
managing, and	maintaining essential network operating system services such as those for client address management, nam	e resolution, sec	urity, routing	, and		
remote access.	remote access. Students gain hands-on experience performing common network infrastructure administrative tasks.					
CIS278	Directory Services Administration	3	0	3		
This course pro	ovides a study of planning, implementing, and maintaining a network directory service. Topics included in t	nis course are pla	anning and in	nplementing		
network direct	ory organizational and administrative structures. Students gain hands-on experience using a directory serv	ice to manage us	ser, group, ar	nd computer		
accounts, shared folders, network resources, and the user environment.						
CIS279	Network Infrastructure Design	3	0	3		
This course provides a study of network infrastructure design. Topics included in this course are strategies for planning, implementing, and maintaining server						
availability and security, client addressing schemes, name resolution, routing, remote access, and network security. Students gain experience by designing plans for						
implementing common network infrastructure and protocols.						
CIS280	Network Security	3	0	3		
This course provides a study of threats to network security and methods of securing a computer network from such threats. Topics included in this course are security						
risks, intrusion detection, and methods of securing authentication, network access, remote access, Web access, and wired and wireless network communications.						
Upon completion, students will be able to identify security risks and appropriate counter measures. This course further helps prepare students for certification.						

Computer Information Science Degree by Semester (4 semesters)					
Fall Semester (First) – 16 hours					
Course	Course	Theory	Lab	Total	
ORT100	Orientation	1	0	1	
This course is d preparation, jo	esigned to introduce the beginning student to college. College policies and regulations are covered as well a b application procedures, and employment interviewing techniques.	s stress managen	nent, resume	2	
MTH100	Intermediate College Algebra	3	0	3	
PREREQUISITE: MTH 098 Elementary Algebra or appropriate mathematics placement score. COREQUISITE: MTH 099 Support for Intermediate College Algebra, if required. (Note that MTH 099 is required for students completing MTH 098 Elementary Algebra.) This course provides a study of algebraic concepts such as laws of exponents, polynomial operations, factoring polynomials, radical and rational expressions and equations and quadratic equations. Functions and relations are introduced and graphed. This course does not apply toward the general core requirement for mathematics.					
This course is a such as word p packages. <u>This</u>	n introduction to the most common microcomputer software applications. These software packages should rocessing, spreadsheets, database management, and presentation software. Upon completion, s will be able course will help prepare s for the MOS and IC ³ certification. This course or an equivalent is CORE for the AAT a	include typical fe to utilize selecte nd AAS CIS progra	atures of ap d features o ams.	plications, f these	
CIS115	Presentation Graphics Software Applications	3	0	3	
This course pro developing a w	vides s with hands-on experience using presentation graphics software. s will develop skills common to mos ide variety of presentations. Emphasis is on planning, developing, and editing functions associated with pres	t presentation gr sentations.	aphics softw	are by	
CIS149	Introduction to Computers	3	0	3	
This course is an introduction to computers and their impact on society. The course covers the development of computers, their impact on society, as well as future implications of development of computer and related communication technologies. This course introduces programming and computer operating systems. Upon completion, students will have basic knowledge of computer technology and will be able to perform basic functions with a computer system. <u>The course will help</u> prepage students for the <i>L</i> ³ certification					
CIS249	Microcomputer Operating Systems	3	0	3	
This course introduces microcomputer operating systems. Topics include a description of the operating system, system commands, and effective and efficient use of the microcomputer with aid of its system programs. Upon completion, students should understand the function and role operating systems, its operational characteristics its configuration how to execute programs and efficient disk and file management.					
	Spring Semester (Second) – 18 hours				
ENG101	English Composition I	3	0	3	
PREREQUISITE: ENR 098 or appropriate English placement score. English Composition I provides instruction and practice in the writing of at least four extended compositions and the development of analytical and critical reading skills and basic reference and documentation skills in the composition process. English Composition I may include instruction and practice in library usage					
MTH116	Mathematical Applications	3	0	3	
This course pro percent, intere	vides practical applications of mathematics and includes selected topics from consumer math, algebra, and st, ratio and proportion, measurement systems, linear equations, and problem solving.	geometry. The co	urse covers	integers,	
CIS207	Web Development	3	0	3	
This course pro students will be	vides students with opportunities to learn Hypertext Markup Language, cascading style sheets, and Java Scri e able to use specified markup languages to develop basic Web pages.	pt. At the conclu	sion of this o	course,	
CIS268	Software Support	3	0	3	
This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. <u>The class will help to</u> <u>prepare participants for the A+ Certification sponsored by CompTIA</u> . This course is a suitable substitute for CIS 239, Networking Software. This course supports CIP Code 11.0101.					
CIS269	Hardware Support	3	0	3	
This course pro	vides students with hands-on practical experience in installation and troubleshooting computer hardware.	The class will help	to prepare p	participants	
	<u>Incation sponsored by compTIA.</u> This is a suitable substitute for CIS 240, Networking Hardware. This support	2 CIP Codes 11.0.	0	2	
This course is d	esigned to introduce students to basic concepts of computer networks. Emphasis is placed on terminology a	and technology ir	volved in im	plementing	
selected networked systems. The course covers various network models, topologies, communications protocols, transmission media, networking hardware and software, and network troubleshooting. Students gain hands-on experience in basic networking. <u>This course further helps prepare students for certification</u> . NOTE: This course is a suitable substitute for CIS 199. Additionally, CISCO I may be used as a suitable substitute for this course. However, CIS 161 will not substitute for CISCO I.					
Summer Semester (Third) – 15 hours					
PSY200	General Psychology	3	0	3	
The course is a	survey of the scientific study of psychological, biological, and socio-cultural factors that influence behavior a	nd mental proces	sses.	2	
CIS199	Network Communications	3	U Tofthatt	J	
technology invo networking har troubleshooting	technology involved in implementing networked systems. The course will cover the OSI and TCP/IP network models, communications protocols, transmission media, networking hardware and software, LANs (Local Area Networks) and WANs (Wide Area Networks), Client/Server technology, the Internet, Intranets and network troubleshooting. Upon completion of the course, students will be able to design and implement a computer network. Students will create network shares, user				

accounts, and install print devices while ensuring basic network security. They will receive hands-on experience building a mock network in the classroom. <u>This course</u> will halp grangers students for the COVA and Natures I configurations. This is a COPE course for the AAT AAS CIS programs					
CIS277	Network Services Administration	3	0	3	
This course provides an introduction to the administration of fundamental networking services and protocols. Topics included in this course are implementing, managing, and maintaining essential network operating system services such as those for client address management, name resolution, security, routing, and remote access. Students gain hands-on experience performing common network infrastructure administrative tasks.					
CIS279	Network Infrastructure Design	3	0	3	
This course pr availability and implementing	ovides a study of network infrastructure design. Topics included in this course are strategies for plannin security, client addressing schemes, name resolution, routing, remote access, and network security. Studer common network infrastructure and protocols.	g, implementing nts gain experien	, and mainta ce by designi	ining server ing plans for	
CIS280	Network Security	3	0	3	
This course pro risks, intrusion Upon completi	This course provides a study of threats to network security and methods of securing a computer network from such threats. Topics included in this course are security risks, intrusion detection, and methods of securing authentication, network access, remote access, Web access, and wired and wireless network communications. Upon completion, students will be able to identify security risks and appropriate counter measures. This course further helps prepare students for certification.				
	Fall Semester (Fourth) – 15 hours				
PHL206	Ethics and Society	3	0	3	
This course involves the study of ethical issues which confront individuals in the course of their daily lives. The focus is on the fundamental questions of right and wrong, of human rights, and of conflicting obligations. The student should be able to understand and be prepared to make decisions in life regarding ethical issues.					
CIS117	Database Management Software Applications	3	0	3	
This course provides s with hands-on experience using database management software. s will develop skills common to most database management software by developing a wide variety of databases. Emphasis is on planning, developing, and editing functions associated with database management.					
CIS275	Workstation Administration	3	0	3	
This course provides a study of client system administration in a network environment. Topics include installing monitoring maintaining, and troubleshooting client operating system software and managing hardware devices and shared resources. Students gain hands-on experience in client operating system installation and basic administration of network workstations.					
CIS276	Server Administration	3	0	3	
This course introduces network operating system administration. Topics included in this course are network operating system software installation, administration, monitoring, and maintenance; user, group, and computer account management; shared resource management; and server hardware management. Students gain hands-on experience in managing and maintaining a network operating system environment.					
CIS278	Directory Services Administration	3	0	3	
This course provides a study of planning, implementing, and maintaining a network directory service. Topics included in this course are planning and implementing network directory organizational and administrative structures. Students gain hands-on experience using a directory service to manage user, group, and computer accounts, shared folders, network resources, and the user environment.					

Systems & Support – 16 semester hours/240 clock hours (3 possible industry certifications)					
Course	Name	Theory	Lab	Total	
ORT100	Orientation	1	0	1	
This course is c	lesigned to introduce the beginning student to college. College policies and regulations are covered as well a	s stress managen	nent, resume	!	
preparation, jo	b application procedures, and employment interviewing techniques.				
CIS146	Microcomputer Applications	3	0	3	
This course is a	n introduction to the most common microcomputer software applications. These software packages should	include typical fe	atures of app	olications,	
such as word p	rocessing, spreadsheets, database management, and presentation software. Upon completion, students will b. This course will help prepare s for the MOS and IC ³ certification. This course or an equivalent is CORE for the	be able to utilize	e selected fea	tures of	
CIS149	Introduction to Computers	3	0	3	
This course is a	n introduction to computers and their impact on society. The course covers the development of computers	, their impact on	society, as w	ell as future	
implications of	development of computer and related communication technologies. This course introduces programming a idents will have basic knowledge of computer technology and will be able to perform basic functions with a l	nd computer ope	erating system	ns. Upon <i>will help</i>	
prepare studer	its for the IC ³ certification.	computer system	. <u>me course</u>	<u>wiii ncip</u>	
CIS249	Microcomputer Operating Systems	3	0	3	
This course int	roduces microcomputer operating systems. Topics include a description of the operating system, system con outer with aid of its system programs. Upon completion, students should understand the function are	nmands, and effe	ective and eff	icient use of	
characteristics,	its configuration, how to execute programs, and efficient disk and file management.	role operating	systems, its	operational	
CIS268	Software Support	3	0	3	
This course pro	ovides students with hands-on practical experience in installing computer software, operating systems, and	d trouble-shootir	ng. <u>The class</u>	will help to	
Code 11.0101.	pants for the A+ Certification sponsored by CompTIA. This course is a suitable substitute for CIS 239, Netwo	orking Software.	This course s	upports CIP	
CIS269	Hardware Support	3	0	3	
This course pro	vides students with hands-on practical experience in installation and troubleshooting computer hardware.	The class will help	to prepare p	articipants	
for the A+ Cert	i <u>fication sponsored by CompTIA.</u> This is a suitable substitute for CIS 240, Networking Hardware. This support	industry co	101.		
Course	Name	Theory	Lah	Total	
	Orientation	1		1	
This course is c	lesigned to introduce the beginning student to college. College policies and regulations are covered as well a	⊥ s stress managen	nent, resume		
preparation, jo	b application procedures, and employment interviewing techniques.		,		
	Intro to Natwork Communications	2	0	2	
This course is o	IIIII O LO NELWOIK COITITIUTICATIONS	S and technology in	U volved in im	D Dementing	
selected netwo	orked systems. The course covers various network models, topologies, communications protocols, transmissi	on media, netwo	rking hardwa	re and	
software, and I	network troubleshooting. Students gain hands-on experience in basic networking. <u>This course further helps</u> suitable substitute for CIS 199—Additionally, CISCO I may be used as a suitable substitute for this course. Ho	prepare students wever_CIS 161 w	<u>for certificat</u> ill not substit	i <u>on.</u> NOTE: ute for	
CISCO I.		wever, eis 101 wi	in not substiti		
CIS199	Network Communications	3	0	3	
This course is a	designed to introduce students to the basic concepts of computer networks. Emphasis is placed on gaining	an understandin	g of the term	inology and	
networking ha	rdware and software, LANs (Local Area Networks) and WANs (Wide Area Networks), Client/Server technol	ogy, the Interne	t, Intranets a	ind network	
troubleshootin	g. Upon completion of the course, students will be able to design and implement a computer network. S	Students will crea	ate network :	shares, user	
will help prepa	re students for the CCNA and Network + certifications. This is a CORE course for the AAT, AAS CIS programs.	lock network in tr	ie classroom	. <u>This course</u>	
CIS277	Network Services Administration	3	0	3	
This course pro	vides an introduction to the administration of fundamental networking services and protocols. Topics include	led in this course	are impleme	enting,	
managing, and maintaining essential network operating system services such as those for client address management, name resolution, security, routing, and					
CIS279	Network Infrastructure Design	3	0	3	
This course provides a study of network infrastructure design. Topics included in this course are strategies for planning, implementing, and maintaining server					
availability and security, client addressing schemes, name resolution, routing, remote access, and network security. Students gain experience by designing plans for implementing common network infrastructure and protocols.					
CIS280	Network Security	3	0	3	
This course pro	vides a study of threats to network security and methods of securing a computer network from such threats.	Topics included i	n this course	are security	
risks, intrusion Upon completi	detection, and methods of securing authentication, network access, remote access, Web access, and wire on, students will be able to identify security risks and appropriate counter measures. This course further helr	d and wireless n Is prepare studen	etwork comr ts for certific	nunications. ation.	
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Administration & Application – 16 semester hours/240 clock hours (1 known industry certification)						
Course	Name	Theory	Lab	Total		
ORT100	Orientation	1	0	1		
This course is o preparation, jo	This course is designed to introduce the beginning student to college. College policies and regulations are covered as well as stress management, resume preparation, job application procedures, and employment interviewing techniques.					
CIS146	Microcomputer Applications	3	0	3		
This course is an introduction to the most common microcomputer software applications. These software packages should include typical features of applications, such as word processing, spreadsheets, database management, and presentation software. Upon completion, students will be able to utilize selected features of these packages. <i>This course will help prepare s for the MOS and IC³ certification.</i> This course or an equivalent is CORE for the AAT and AAS CIS programs.						
		2		2		
CIS11/	Database Management Software Applications	3	0	3		
This course provides students with hands-on experience using database management software. Students will develop skills common to most database management software by developing a wide variety of databases. Emphasis is on planning, developing, and editing functions associated with database management.						
CIS275	Workstation Administration	3	0	3		
This course provides a study of client system administration in a network environment. Topics include installing monitoring maintaining, and troubleshooting client operating system software and managing hardware devices and shared resources. Students gain hands-on experience in client operating system installation and basic administration of network workstations.						
CIS276	Server Administration	3	0	3		
This course introduces network operating system administration. Topics included in this course are network operating system software installation, administration, monitoring, and maintenance; user, group, and computer account management; shared resource management; and server hardware management. Students gain hands-on experience in managing and maintaining a network operating system environment.						
CIS278	Directory Services Administration	3	0	3		
This course provides a study of planning, implementing, and maintaining a network directory service. Topics included in this course are planning and implementing network directory organizational and administrative structures. Students gain hands-on experience using a directory service to manage user, group, and computer accounts, shared folders, network resources, and the user environment.						