



***Associate of Applied Science in Computer and Information Technologies –
Informatics Track to Bachelor of Science in Computer Information Technology –
All Tracks***

Completion of the following curriculum will satisfy the requirements for the **Associate of Applied Science (AAS) in Computer and Information Technologies (Informatics Track)** degree at a Kentucky Community and Technical College System institution and leads to the **Bachelor of Science in Computer Information Technology** degree at Northern Kentucky University.

Admission Requirements for a Bachelor of Science in Computer Information Technology

Students completing the AAS with a gpa of 2.0 or higher will be admitted into the Computer Information Technology major at NKU.


Students with current certification at the time of registering for classes will receive credit for equivalent NKU courses based on the following course mappings.


Examination	Equivalent NKU Courses	Semester Credits
CCNA Routing and Switching	CIT 247 Networking Fundamentals CIT 447 Network Design/Troubleshooting	6
CCNA Security	CIT 247 Networking Fundamentals CIT 484 Network Security	6
Security+ (versions SY0-501 and later)	CIT 285 Cybersecurity Fundamentals	3
OCA – Oracle Certified Associate	CIT 472 Database Administration	3

Note: Students with Security+ exams SY0-401 and below will be required to take CIT 285.

**KCTCS AAS IN COMPUTER & INFORMATION TECHNOLOGIES – INFORMATICS
TRACK (BUSINESS COURSE SEQUENCE) TO NKU BS IN COMPUTER INFORMATION
TECHNOLOGY CHECKLIST**


Kentucky Community and Technical College

Category I: General Education Requirements				
KCTCS Course	Course or Category	Credits	NKU Course	
ENG 101	Writing I (WC)	3	ENG 101	
MAT 150	College Algebra (QR)	3	MAT 109	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBD XXX	
TBS XXX	Natural Science Course with Lab (SL)	3-4	TBD XXX	
Subtotal General Education Courses		15-16		

Category I and Category II: General Education Required for the AAS in Computer & Information Technologies – Informatics Track with Business Course Sequence				
KCTCS Course	Course or Category	Credits	NKU Course	
ENG 102	Writing II (WC)	3	ENG 291	
TBS XXX	Oral Communications (OC)	3	TBD XXX	
ECO 201 or ECO 202	Principles of Microeconomics (SB) or Principles of Macroeconomics (SB)	3	ECO 201 or ECO 200	
Subtotal General Education/Degree Requirement Courses		9		

TBS XXX means to be selected.

TBD XXX means to be determined.

Category II: Degree Requirements for the AAS in Computer & Information Technologies – Informatics Track with Business Course Sequence				
KCTCS Course	Course or Category	Credits	NKU Course	
CIT 105	Introduction to Computers	3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 100T	
CIT 120 + CIT 149 + CIT 249	Computational Thinking and Java I (Level I Programming Language) and Java II	3 3 3	INF 120 + CSC 260 + CSC 360	
CIT 150 or CIT 155 or IMD 230	Internet Technologies (CIT Technical) or Web Page Development (CIT Technical) or Advanced Web Design (CIT Technical)	3	INF 286	
CIT 160 or CIT 161	Intro to Networking Concepts (Level I Networking) or Introduction to Networks (Level I Networking)	4	INF 284	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 180	Security Fundamentals	3	CIT 200T	
CIT 293	CIT Employability Studies	1	CIT 100T	
IFM 111	Client-Side Informatics Software	3	INF 100T	
IFM 128 or	Principles of Informatics or	3	INF 128	

INF 128	Principles of Informatics		
Subtotal Degree Requirements Informatics: Business Courses		36	
Total Associate Degree Credit Hours		60 - 61	

Northern Kentucky University

Category III: Additional General Education Courses				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
TBS XXX	Self & Society	3		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
Subtotal NKU General Education Courses Credit Hours		9		

Category IV: Major Requirements for the BS in Computer Information Technology				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	0	CIT 120 + CIT 149 + CIT 249 = INF 120 + CSC 260 + CSC 360	x
INF 282	Introduction to Databases	0	CIT 170	x
INF 286	Introduction to Web Development	0	CIT 150 or CIT 155 or IMD 230	x
CIT 130	Information Technology Fundamentals	3	CIT 111 + CIT 217 + CIT 160 or CIT 161 = CIT 130 + CIT 100T + INF 284	
CIT 247	Networking Fundamentals	3	CIT 167	
CIT 271	Windows Administration	3	CIT 213 + CIT 215 = CIT 271 + CIT 200T	
CIT 285	Cybersecurity Fundamentals	3	CIT 180 + CIT 182 = CIT 285 + CIT 100T	
CIT 371	Unix Systems	3		
CIT 383	Scripting	3		
STA 205 or STA 250	Introduction to Statistical Methods or Probability and Statistics	3	STA 220	
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3		
	Select one track from following tracks: Network and Administration Track Web and Database Administration Track	12-18		

	Cybersecurity Track Non-Specialist Track (Required courses are listed in Category V boxes below.)			
	Any NKU minor may be selected. Information Systems and Computer Science are common choices and require 9-15 additional credits. (Required courses for these minors are listed in Category VI boxes below.)	9-15		
	Additional hours at the 300/400 level to meet the 45 credit hour graduation requirement*	3-9		
Subtotal NKU Courses Credit Hours		66-78		
Total Baccalaureate Degree Credit Hours		126-138		

*Students selecting minors other than Information Systems and Computer Science may need additional hours to complete this requirement.

Students must choose a track as part of the Computer Information Technology major.

Category V: Network and System Administration Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 447	Network Design/Troubleshooting	3		
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
CIT XXX	300/400-level CIT Course (not above)	3		
CIT XXX	300/400-level CIT Course (not above)	3		
CIT XXX	300/400-level CIT Course (not above)	3		
Additional Credit Hours in Track		18		

Category V: Web and Database Administration Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 360	Object-Oriented Programming II	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 301	Web Programming	3		
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		

CSC 456 or CIT XXX	Advanced Web Application Development or One 300/400-level CIT course	3		
Additional Credit Hours in Track		12		

Category V: Cybersecurity Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
CIT XXX	300/400-level CIT Course (not above)*	3		
CIT XXX	300/400-level CIT Course (not above)*	3		
CIT XXX	300/400-level CIT Course (not above)*	3		
Additional Credit Hours in Track		18		

*BIS 383, CSC 482 and CSC 483 may count toward these electives.

Category V: Non-Specialist Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	3	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 360	Object-Oriented Programming II	3	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CIT 436 or CIT 438 or CIT 472	Web Server Administration or Cloud Computing or Database Administration	3		
CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		
CIT XXX	One 300/400-level CIT course	3		
CIT XXX	One 300/400-level CIT course	3		
Additional Credit Hours in Track		12		


Students may choose one of the minors listed below or any other minor offered at NKU.


Category VI: Additional Requirements for Information Systems Minor				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	0	CIT 141 or CIT 142 or CIT 143 or CIT 144 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or CIT 149 or CS 115	x
INF 282	Introduction to Databases	0	CIT 170	x
INF 286	Introduction to Web Development	0	CIT 150 or CIT 155 or IMD 230	x
BIS 275	Introduction to Business Analysis	3		
BIS 300	Management Information Systems	3		
BIS 310	Information Systems Analysis	3	CIT 291	
BIS 330	IT Project Management	3		
BIS XXX	One 300/400-level BIS course from list	3		
Additional Credit Hours in Minor		15		

Category VI: Additional Requirements for Computer Science Minor				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	0	CIT 141 or CIT 142 or CIT 143 or CIT 144 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or CIT 149 or CS 115	x
CSC 260	Object-oriented Programming I	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 360	Object-oriented Programming II	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 362 or CSC 364	Computer Systems or Data Structures and Algorithms	3		
CSC XXX	One 300/400-level CSC course	3		
CSC XXX	One 300/400-level CSC course	3		
INF XXX or CSC XXX or CIT XXX	Two 300/400-level INF, CSC, or CIT courses not listed above in Category VI (met by CIT major requirements)	0		
Additional Credit Hours in Minor		9		

**KCTCS AAS IN COMPUTER & INFORMATION TECHNOLOGIES – INFORMATICS
TRACK (INFORMATICS PROGRAMMING COURSE SEQUENCE) TO NKU BS IN
COMPUTER INFORMATION TECHNOLOGY CHECKLIST**


Kentucky Community and Technical College

Category I: General Education Requirements				
KCTCS Course	Course or Category	Credits	NKU Course	
ENG 101	Writing I (WC)	3	ENG 101	
MAT 150	College Algebra (QR)	3	MAT 109	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBD XXX	
INF 120 or TBS XXX	Elementary Programming or Natural Science Course with Lab (NS or SL)	3-4	INF 120 or TBD XXX	
Subtotal General Education Courses		15-16		

Category I and Category II: General Education Required for the AAS in Computer & Information Technologies – Informatics Track with Informatics Programming Course Sequence				
KCTCS Course	Course or Category	Credits	NKU Course	
ENG 102	Writing II (WC)	3	ENG 291	
TBS XXX	Oral Communications (OC)	3	TBD XXX	
Subtotal General Education Courses		6		

TBS XXX means to be selected.

TBD XXX means to be determined.

Category II: Degree Requirements for the AAS in Computer & Information Technologies – Informatics Track with Informatics Programming Course Sequence				
KCTCS Course	Course or Category	Credits	NKU Course	
CIT 105	Introduction to Computers	3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 100T	
CIT 120 + CIT 249 (INF 120 or CIT 149)	Computational Thinking and Java II <i>Elementary Programming – Fulfills Sci Gen Ed or Java I</i>	3 3 0-3	CSC 260 + CSC 360 + INF 120	
CIT 150 or CIT 155 or IMD 230	Internet Technologies (CIT Technical) or Web Page Development (CIT Technical) or Advanced Web Design (CIT Technical)	3	INF 286	
CIT 160 or CIT 161	Intro to Networking Concepts (Level I Networking) or Introduction to Networks (Level I Networking)	4	INF 284	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 180	Security Fundamentals	3	CIT 200T	
CIT 293	CIT Employability Studies	1	CIT 100T	
CIT 253	Data-Driven Web Pages	3	CSC 301	

CS 115/215 or CIT 142/242 or CIT 143/243	Introduction to Computer Programming/ Introduction to Program Design, Abstraction and Problem Solving or C++ I/II or C# I/II	6-7	INF 100T + CSC 260 INF 100T + CSC 200T INF 100T + CSC 200T	
STA 220	Statistics	3	STA 205	
Total Associate Degree Credit Hours		60-61		

Northern Kentucky University

Category III: Additional General Education Courses				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
TBS XXX	Self & Society	6		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
TBS XXX	Natural Science or Natural Science with a Lab	3 - 4		
Subtotal NKU General Education Courses Credit Hours		15-16		

Category IV: Major Requirements for the BS in Computer Information Technology				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	0	INF 120 or CIT 149	x
INF 282	Introduction to Databases	0	CIT 170	x
INF 286	Introduction to Web Development	0	CIT 150 or CIT 155 or IMD 230	x
CIT 130	Information Technology Fundamentals	3	CIT 111 + CIT 217 + CIT 160 or CIT 161 = CIT 130 + CIT 100T + INF 284	
CIT 247	Networking Fundamentals	3	CIT 167	
CIT 271	Windows Administration	3	CIT 213 + CIT 215 = CIT 271 + CIT 200T	
CIT 285	Cybersecurity Fundamentals	3	CIT 180 +CIT 182 = CIT 285 +CIT 100T	
CIT 371	Unix Systems	3		
CIT 383	Scripting	3		
STA 205 or STA 250	Introduction to Statistical Methods or Probability and Statistics	0	STA 220	x

PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3		
	Select one track from following tracks: Network and Administration Track Web and Database Administration Track Cybersecurity Track Non-Specialist Track (Required courses are listed in Category V boxes below.)	9-18		
	Any NKU minor may be selected. Information Systems and Computer Science are common choices and require 9-15 additional credits. (Required courses for these minors are listed in Category VI boxes below.)	9-15		
	Additional hours at the 300/400 level to meet the 45 credit hour graduation requirement and 120 total credits*	0-9		
Subtotal NKU Courses Credit Hours		63-78		
Total Baccalaureate Degree Credit Hours		123-139		

*Students selecting minors other than Information Systems and Computer Science may need additional hours to complete this requirement.

Students must choose a track as part of the Computer Information Technology major.

Category V: Network and System Administration Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 447	Network Design/Troubleshooting	3		
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
CIT XXX	300/400-level CIT Course (not above)	3		
CIT XXX	300/400-level CIT Course (not above)	3		
CIT XXX	300/400-level CIT Course (not above)	3		
Additional Credit Hours in Track		18		

Category V: Web and Database Administration Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 360	Object-Oriented Programming II	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x

CSC 301	Web Programming	0	CIT 253	x
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
CSC 456 or CIT XXX	Advanced Web Application Development or One 300/400-level CIT course	3		
Additional Credit Hours in Track		9		

Category V: Cybersecurity Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
CIT XXX	300/400-level CIT Course (not above)*	3		
CIT XXX	300/400-level CIT Course (not above)*	3		
CIT XXX	300/400-level CIT Course (not above)*	3		
Additional Credit Hours in Track		18		

*BIS 383, CSC 482 and CSC 483 may count toward these electives.

Category V: Non-Specialist Track				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 360	Object-Oriented Programming II	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CIT 436 or CIT 438 or CIT 472	Web Server Administration or Cloud Computing or Database Administration	3		
CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		
CIT XXX	One 300/400-level CIT course	3		
CIT XXX	One 300/400-level CIT course	3		
Additional Credit Hours in Track		12		

Students may choose one of the minors listed below or any other minor offered at NKU.

Category VI: Additional Requirements for Information Systems Minor				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	0	CIT 141 or CIT 142 or CIT 143 or CIT 144 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or CIT 149 or CS 115	x
INF 282	Introduction to Databases	0	CIT 170	x
INF 286	Introduction to Web Development	0	CIT 150 or CIT 155 or IMD 230	x
BIS 275	Introduction to Business Analysis	3		
BIS 300	Management Information Systems	3		
BIS 310	Information Systems Analysis	3		
BIS 330	IT Project Management	3		
BIS XXX	One 300/400-level BIS course from list	3		
Additional Credit Hours in Minor		15		

Category VI: Additional Requirements for Computer Science Minor				
NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	0	CIT 141 or CIT 142 or CIT 143 or CIT 144 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or CIT 149 or CS 115	x
CSC 260	Object-oriented Programming I	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 360	Object-oriented Programming II	0	CIT 149 +CIT 249= CSC 260 +CSC 360	x
CSC 362 or CSC 364	Computer Systems or Data Structures and Algorithms	3		
CSC XXX	One 300/400-level CSC course	3		
CSC XXX	One 300/400-level CSC course	3		
INF XXX or CSC XXX or CIT XXX	Two 300/400-level INF, CSC, or CIT courses not listed above in Category VI (met by CIT major requirements)	0		
Additional Credit Hours in Minor		9		