

## TRANSFER PATHWAY GUIDE 2021-2022

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

#### Overview

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

There are two pathways in this document. The first pathway is built using the Microsoft Windows Administration Course Sequence in the Network Administration Track at KCTCS and second pathway is built using the Cisco Networking Associate Course Sequence in the Network Administration Track. Each pathway leads into a Computer Information Technology degree at NKU.

### Applying to the KCTCS2NKU Program

Students can apply to participate in the pathway program by completing the online application on the NKU transfer webpage. Students must be enrolled in at least six credit hours at their KCTCS institution, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at their KCTCS institution.

### Degree Requirements for KCTCS

1) Minimum cumulative GPA 2.0, 2) minimum of 25 percent of credit hours required for the degree earned at the institution awarding the degree, and 3) demonstration of digital literacy.

### Admission Requirements to NKU

Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU.

### **Degree Requirements for NKU**

To earn a bachelor's degree at NKU, students must complete a minimum of 120 credit hours with at least 45 credit hours numbered 300 and above. In addition, at least 25% of the credit hours required for the degree and the last 30 credit hours must be completed at NKU. Students must have an overall GPA of 2.0 and meet all prerequisites for courses and requirements for the major, including earning a C- or better in all courses that count toward the major or minor. In some cases, students must complete a focus or minor as indicated on the pathway.

### **General Transfer Information**

Students must complete the online application to NKU. There is no application fee for students who are transferring from a KCTCS institution.

KCTCS Scholars Award: Students who are KY residents transferring directly from a KCTCS institution with at least 36 hours from that institution and minimum GPA of 3.0, were never enrolled as a degree-seeking student at NKU, and will be enrolled in at least 12 credit hours both fall and spring semester are eligible for a limited number of \$2,500 annual scholarships (\$1,250 per fall and spring). Students must gain admission to NKU by June 15 for fall and November 1 for spring to be eligible for a possible scholarship. Online accelerated programs are not eligible for the KCTCS Scholars Award.

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

#### Cisco

NKU students who have taken and passed an examination from Cisco, and hold a current certification (at the time of registering for classes) will receive credit for an equivalent NKU course. The chart below shows the semester credit hours and the equivalent NKU course.

EXAMINATION	EQUIVALENT NKU COURSE	TOTAL SEMESTER HOURS
CCNA Exam (200-301)*	CIT 247 Networking Fundamentals CIT 447 Network Design/Troubleshooting	6
CCNP Security Core Exam (350-701)*	CIT 484 Network Security	3
Certified Entry Networking	CIT 247 Networking Fundamentals	3

<sup>\*</sup>Credit given for exams taken after Summer 2020

### **Computing Technology Industry Association (CompTIA)**

NKU students who have taken and passed an examination from CompTIA, and hold a current certification (at the time of registering for classes) will receive credit for an equivalent NKU course. The chart below shows the semester credit hours and the equivalent NKU course.

EXAMINATION	EQUIVALENT NKU COURSE	TOTAL SEMESTER HOURS
Security+ (versions SY0-501 and later)	CIT 285 Cybersecurity Fundamentals	3

Network+	INF 284 Introduction to Computer Networks	3
Linux+	CIT 371 Unix Systems	3

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

# KCTCS AAS IN COMPUTER & INFORMATION TECHNOLOGIES – NETWORK ADMINISTRATION TRACK (MICROSOFT WINDOWS ADMINISTRATION) TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY CHECKLIST

### **Kentucky Community and Technical College System**

**Category 1: KCTCS General Education Requirements** 

KCTCS Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
MAT 150 or MAT 161	College Algebra (QR) or Statistics and Algebra (QR)	3-5	(MAT 102 or MAT 103) + MAT 100T or MAT 101 + MAT 102	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBD XXX	
TBS XXX	Natural Science (NS or SL)	3	TBD XXX	_
	Subtotal General Education Courses	15-17		

TBS XXX means to be selected by KCTCS student.

TBD XXX means to be determined by NKU based on course selected.

A grade of A or B in MAT 150 equates to MAT 103 + MAT 100T. Grade of C or D in MAT 150 equates to MAT 102 + MAT 100T.

Students who do not complete a science course with a lab will be required to take an additional science with a lab at NKU.

Category 2: KCTCS AAS Requirements for Computer and Information Technologies – Network Administration Track (Microsoft Windows Administration)

KCTCS Course	Course or Category	Credits	NKU Course	Completed
CIT 105	Introduction to Computers	3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 130	
CIT 217	UNIX/Linux Net Infrastructure (CIT Technical)	3	CIT 171	
CIT 160 or	Intro to Networking Concepts (Level I Networking)	4	INF 284	
CIT 161	or Introduction to Networks (Level I Networking)			
CIT 120	Computational Thinking	3	INF 100T	
	Level I Programming Language Course:			
CIT 141 or	PHP I or		INF 120	
CIT 142 or	C++ I or	2		
CIT 143 or	C# I or	3	(CIT 149 =	
CIT 144 or	Python I or		CSC 260)	
CIT 145 or	Perl I or			

KCTCS	Course or Category	Credits	NKU	Completed
Course		0.00.00	Course	oop.ooo.
CIT 146 or	Swift I or			
CIT 147 or	Programming I: Language or			
CIT 148 or	Visual Basic I or			
CIT 149 or	Java I or			
CS 115	Introduction to Computer Programming			
CIT 150 or	Internet Technologies (CIT Technical) or	3	INF 286	
CIT 155	Web Page Development (CIT Technical)	3	IINF 280	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 180 +	Security Fundamentals +	3	CIT 285 +	
CIT 182	Perimeter Defense (CIT Technical)	3	CIT 200T	
CIT 213 +	Microsoft Client Configuration +			
CIT 214 +	Microsoft Server Configuration +			
CIT 215	Microsoft Server Administration			
Or	Or	9-12	CIT 271 +	
CIT 213 +	Microsoft Client Configuration +	9-12	CIT 200T	
CIT 261 +	MS Active Directory Services+			
CIT 262 +	MS Network Infrastructure +			
CIT 264	Microsoft Server Management			
CIT 216	Microsoft Server Advanced Services	3	CIT 200T	
CIT 293	CIT Employability Studies	1	INF 201	
	Subtotal AAS Requirement Courses	45-48		
	Total Associate Degree Hours	60-65		

## **Northern Kentucky University**

### **Category 3: NKU Additional General Education Courses**

NKU Course	Course or Category	Credits	KCTCS Course	Taken at KCTCS
ENG 102	Advanced College Writing	3	ENG 102	
CMST 101	Public Speaking	3	COM 181	
TBS XXX	Science with Lab	4		
TBS XXX	Self & Society	6		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
	Subtotal General Education Credit Hours	22		_

Category 4: NKU Major Requirements for BS in Computer Information Technology

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 100	Orientation to College of Informatics	1	Waived for students with AAS degree	
INF 120	Elementary Programming	3	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	х
INF 282	Introduction to Databases	3	CIT 170	Х
INF 284	Introduction to Computer Networks	3	CIT 160 or CIT 161	х
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	х
CIT 130	Information Technology Fundamentals	3	CIT 111	х
CIT 171	Introduction to Linux	1	CIT 217	х
CIT 271	Windows Administration	3	CIT 215 or CIT 216 or CIT 264	х
CIT 285	Cybersecurity Fundamentals	3	CIT 180 +CIT 182 = CIT 285 +CIT 100T	х
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
STA 205 or STA 250	Statistical Methods or Probability and Statistics	3	STA 220 or (MAT 151 or STA 151 or MAT 161) + STA 251	
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3	ENG 204	
	Select one track from following tracks:  Network and System Administration Track  Web and Database Administration Track  Cybersecurity Track	18		
	Non-Specialist Track (Required courses are listed in Categories 6-9 tables below.)	10		
	Subtotal Major Credit Hours at NKU	34		
	Subtotal Major Credit Hours KCTCS	22		
	Total Major Credit Hours	56		

## **Category 5: Additional Requirements at NKU**

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
	Subtotal Focus/Minor Credit Hours			
	Note: Any NKU focus or minor may be selected.	12-24		
	Information Systems and Computer Science are			

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
	common choices and require 9-15 additional			
	credit hours beyond the major.			
	(Required courses for these minors are listed in			
	Categories 10-11 tables below.)			
	Total Baccalaureate Degree Credit Hours	124-141		

Note: Depending on track, focus/minor, and courses chosen, students may need additional electives to meet the 45-hour upper level graduation requirement. Work with your NKU advisor to make sure you meet all graduation requirements.

Students must choose a track as part of the Computer Information Technology major. Track requirements are listed in the Category 6 tables below.

Category 6: NKU Major Requirements for the Network and System Administration Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 247	Networking Fundamentals	3	CIT 167	
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 listed above)	3		
CIT XXX	300/400-level CIT Course (not listed above)	3		
	Additional Credit Hours for Track	18		

Category 7: NKU Major Requirements for the Web and Database Administration Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	3	CIT 149	
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3	CIT 249 = CSC 360	
ASE 230	Server-Side Programming	3	IMD 133 + IMD 180 + IMD 230 = INF 286 + ASE 230 + MIN 200T	
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
ASE 456 or CIT XXX	Cross-Platform Development or One 300/400-level CIT course (not listed above)	3		
	Additional Credit Hours for Track	18		

**Category 8: NKU Major Requirements for the Cybersecurity Track** 

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 247	Networking Fundamentals	3	CIT 167	
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
TBS XXX	300/400-level CIT or CYS Course (not listed above)	3		
TBS XXX	300/400-level CIT or CYS Course (not listed above)	3		
	Additional Credit Hours for Track	18		

BIS 382, CSC 482 and CSC 483 may count as the CIT elective in the Cybersecurity Track.

Category 9: NKU Major Requirements for the Non-Specialist Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	3	CIT 149	
CSC 360 or	Object-Oriented Programming II or	3	CIT 249 = CSC 360	
CIT 483	Scripting II	3		
CIT 436 or	Web Server Administration or			
CIT 438 or	Cloud Computing or	3		
CIT 472	Database Administration			
CIT 470 or	Advanced Network and System			
CIT 485	Administration or Advanced	3		
	Cybersecurity			
TBS XXX	300/400-level CIT or CYS Course (not	3		
103 ///	listed above)	3		
TBS XXX	300/400-level CIT or CYS Course (not	3		
103 444	listed above)	3		
	Additional Credit Hours for Track	18		

Students may choose one of the following minors listed below in Category 7 tables or any other minor offered at NKU.

Category 10: NKU Requirements for the Information Systems Minor

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
			CIT 141 or CIT 142 or	
			CIT 143 or CIT 144 or	
INF 120	Elementary Programming	3	CIT 145 or CIT 146 or	x
			CIT 147 or CIT 148 or	
			CIT 149 or CS 115	
INF 282	Introduction to Databases	3	CIT 170	х

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	х
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		
TBS XXX	One 300/400-level BIS or CYS course from list of courses in the NKU Undergraduate Catalog under Information Systems Minor	3		
	Additional Credit Hours for Minor	15		

Category 11: NKU Requirements for the Computer Science Minor

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	3	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	х
CSC 260	Object-oriented Programming I	3	CIT 149	
CSC 360	Object-oriented Programming II	3	CIT 249	
CSC 362 or CSC 364	Computer Systems or Data Structures and Algorithms	3		
CSC XXX	One 300/400-level CSC course (not listed above)	3		
CSC XXX	One 300/400-level CSC course (not listed above)	3		
Select 2: ASE XXX INF XXX CSC XXX CIT XXX CYS XXX DSC XXX	Two 300/400-level ASE, INF, CSC, CIT, CYS or DSC courses not included above (met by CIT major requirements)	6		
	Additional Credit Hours for Minor	15		

Updated: May 2021

## KCTCS AAS IN COMPUTER & INFORMATION TECHNOLOGIES – NETWORK ADMINISTRATION TRACK (CISCO NETWORKING ASSOCIATE) TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY CHECKLIST

### **Kentucky Community and Technical College System**

**Category 1: KCTCS General Education Requirements** 

KCTCS Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
			(MAT 102 or	
MAT 150	College Algebra (QR)	3	MAT 103) +	
			MAT 100T	
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) – Choose from the list below:  BIO 135 -Basic Anatomy & Physiology with Laboratory  BIO 137 -Human Anatomy & Physiology I  BIO 139 - Human Anatomy & Physiology II  BIO 141 -Botany with Laboratory  BIO 143- Zoology with Laboratory  BIO 225 -Medical Microbiology  CHE 220 -Analytical Chemistry  EST 150 -Introductory Ecology  GEO 280 -Environmental Science  GLY 220 -Principles of Physical Geology  PHY 171-Applied Physics	4	TBD XXX	
	Subtotal General Education Courses	16		

TBS XXX means to be selected by KCTCS student.

TBD XXX means to be determined by NKU based on course selected.

A grade of A or B in MAT 150 equates to MAT 103 + MAT 100T. Grade of C or D in MAT 150 equates to MAT 102 + MAT 100T.

Students who do not complete a science course with a lab will be required to take an additional science with a lab at NKU.

Category 2: KCTCS AAS Requirements for Computer and Information Technologies – Network Administration Track (Cisco Networking Associate)

KCTCS Course	Course or Category	Credits	NKU Course	Completed
CIT 105	Introduction to Computers	3	BIS 101	

KCTCS	Course or Category	Credits	NKU	Completed
Course	Course or Category	Credits	Course	Completed
CIT 111	Computer Hardware and Software	4	CIT 130	
CIT 217	UNIX/Linux Net Infrastructure (CIT Technical)	3	CIT 171	
CIT 161	Introduction to Networks (Level I Networking)	4	INF 284	
CIT 120	Computational Thinking	3	INF 100T	
	Level I Programming Language Course:			
CIT 141 or	PHP I or			
CIT 142 or	C++ I or			
CIT 143 or	C# I or		INF 120	
CIT 144 or	Python I or		INF 120	
CIT 145 or	Perl I or	3	/CIT 4.40	
CIT 146 or	Swift I or		(CIT 149 = CSC 260)	
CIT 147 or	Programming I: Language or		C3C 200)	
CIT 148 or	Visual Basic I or			
CIT 149 or	Java I or			
CS 115	Introduction to Computer Programming			
CIT 150 or	Internet Technologies (CIT Technical) or	3	INF 286	
CIT 155	Web Page Development (CIT Technical)	3	INF 200	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 180 +	Security Fundamentals +	3	CIT 285 +	
CIT 182	Perimeter Defense (CIT Technical)	3	CIT 200T	
CIT 167	Routing and Switching Essentials	4	CIT 247	
CIT 209	Scaling Networks	4	INF 284	
CIT 212	Connecting Networks	4	INF 200T	
CIT 293	CIT Employability Studies	1	INF 201	
	Subtotal AAS Requirement Courses	45		
	Total Associate Degree Hours	61		

## **Northern Kentucky University**

## **Category 3: NKU Additional General Education Courses**

NKU Course	Course or Category	Credits	KCTCS Course	Taken at KCTCS
ENG 102	Advanced College Writing	3	ENG 102	
CMST 101	Public Speaking	3	COM 181	
TBS XXX	Self & Society	6		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
	Subtotal General Education Credit Hours	18		

NKU Course	Course or Category	Credits	KCTCS Course	Taken at KCTCS
ENG 102	Advanced College Writing	3	ENG 102	
CMST 101	Public Speaking	3	COM 181	
TBS XXX	Science with Lab	4		
TBS XXX	Self & Society	6		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
	Subtotal General Education Credit Hours	22		

Category 4: NKU Major Requirements for BS in Computer Information Technology

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 100	Orientation to College of Informatics	1	Waived for students with AAS degree	
INF 120	Elementary Programming	3	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	х
INF 282	Introduction to Databases	3	CIT 170	x
INF 284	Introduction to Computer Networks	3	CIT 209	x
INF 286	Introduction to Linux	3	CIT 150 or CIT 155	Х
CIT 171	Information Technology Fundamentals	1	CIT 217	x
CIT 130	Information Technology Fundamentals	3	CIT 111	
CIT 271	Windows Administration	3	CIT 215 or CIT 216	х
CIT 285	Cybersecurity Fundamentals	3	CIT 180 + CIT 182 = CIT 285 + CIT 100T	х
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
STA 205 or STA 250	Statistical Methods or Probability and Statistics	3	STA 220 or (MAT 151 or STA 151 or MAT 161) + STA 251	
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3		
	Select one track from following tracks: Network and System Administration Track Web and Database Administration Track Cybersecurity Track Non-Specialist Track	18		

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
	(Required courses are listed in			
	Categories 6-9 tables below.)			
	Subtotal Major Credit Hours at NKU	34		
	Subtotal Major Credit Hours KCTCS	21		
	Total Major Credit Hours	55		

**Category 5: Additional Requirements at NKU** 

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
	Subtotal Focus/Minor Credit Hours Note: Any NKU focus or minor may be selected. Information Systems and Computer Science are common choices and require 9-15 additional credit hours beyond the major. (Required courses for these minors are listed in Categories 10-11 tables below.)	12-24		
	Total Baccalaureate Degree Credit Hours	125-137		

Note: Depending on track, focus/minor, and courses chosen, students may need additional electives to meet the 45-hour upper level graduation requirement. Work with your NKU advisor to make sure you meet all graduation requirements.

Students must choose a track as part of the Computer Information Technology major. The course requirements for the tracks are listed in Category 6 tables below.

Category 6: NKU Major Requirements for the Network and System Administration Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 247	Networking Fundamentals	3	CIT 167	x
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 listed above)	3		
CIT XXX	300/400-level CIT Course (not listed above)	3		
	Additional Credit Hours for Track	15		

Category 7: NKU Major Requirements for the Web and Database Administration Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	3	CIT 149	
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3	CIT 249 = CSC 360	
ASE 230	Server-Side Programming	3	IMD 133 + IMD 180 + IMD 230 = INF 286 + ASE 230 + MIN 200T	
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
ASE 456 or CIT XXX	Cross-Platform Development or One 300/400-level CIT course (not listed above)	3		
	Additional Credit Hours for Track	18		

Category 8: NKU Major Requirements for the Cybersecurity Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 247	Networking Fundamentals	3	CIT 167	х
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
CIT XXX	300/400-level CIT Course (not listed above)	3		
CIT XXX	300/400-level CIT Course (not listed above)	3		
	Additional Credit Hours for Track	15		

BIS 382, CSC 482 and CSC 483 may count as the CIT elective in the Cybersecurity Track.

Category 9: NKU Major Requirements for the Non-Specialist Track

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CSC 260	Object-Oriented Programming I	3	CIT 149	
CSC 360 or	Object-Oriented Programming II or	3	CIT 249 = CSC 360	
CIT 483	Scripting II	3		
CIT 436 or	Web Server Administration or			
CIT 438 or	Cloud Computing or	3		
CIT 472	Database Administration			
CIT 470 or	Advanced Network and System			
CIT 485	Administration or Advanced	3		
	Cybersecurity			
CIT XXX	One 300/400-level CIT course			
	(not listed above)	3		
CIT XXX	One 300/400-level CIT course	3		
	(not listed above)			
	Additional Credit Hours for Track	18		

Students may choose one of the following minors listed below in Category 7 tables or any other minor offered at NKU.

Category 10: NKU Requirements for the Information Systems Minor

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	3	CIT 141 or CIT 142 or CIT 143 or CIT 144 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or	х
			CIT 149 or CS 115	
INF 282	Introduction to Databases	3	CIT 170	Х
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	Х
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 of courses in the NKU Undergraduate Catalog under Information Systems Minor	3		
	Additional Credit Hours for Minor	15		

Category 11: NKU Requirements for the Computer Science Minor

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	3	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	х
CSC 260	Object-oriented Programming I	3	CIT 149	
CSC 360	Object-oriented Programming II	3	CIT 249	
CSC 362 or CSC 364	Computer Systems or Data Structures and Algorithms	3		
CSC XXX	One 300/400-level CSC course (not listed above)	3		
CSC XXX	One 300/400-level CSC course (not listed above)	3		
Select 2: ASE XXX INF XXX CSC XXX CIT XXX	Two 300/400-level ASE, INF, CSC, CIT, CYS or DSC courses not included above (met by CIT major requirements)	6		

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CYS XXX				
DSC XXX				
	Additional Credit Hours for Minor	15		

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