



TWO DEGREES, ONE PATH

TRANSFER PATHWAY GUIDE 2021-2022

Associate of Science to Bachelor of Science in Computer Information Technology – All Tracks

Overview

Completion of the following curriculum will satisfy the requirements for the Associate of Science (AS) 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 Associate of Science degrees in this document. The first AS degree prepares students for a major in Computer Information Technology with the Network and System Administration Track or the Cybersecurity Track. The second AS degree prepares students for a major in Computer Information Technology with the Web and Database Track or the Non-Specialist Track.

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) Completion of minimum 60 credit hours, 2) minimum cumulative GPA 2.0, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural studies course, 5) demonstration of digital literacy, and 6) college success requirement.

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 for 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

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

KCTCS AS TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY – ALL TRACKS 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	
ENG 102	Writing II (WC)	3	ENG 102	
COM 181	Basic Public Speaking (OC)	3	CMST 101	
TBS XXX	Arts & Humanities (AH) Heritage	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Humanities	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Natural Science with Lab (SL)	3-4	TBD XXX	
TBS XXX	Natural Science (NS)	3	TBD XXX	
MAT 150 or MAT/STA 151	College Algebra (QR) or Introduction to Statistics (QR)	3	(MAT 102 or MAT 103) + MAT 100T or STA 100G	
STA 220 or STA 251	Statistics (QR) or Applied Statistics (QR)	3	STA 205	
Subtotal General Education Courses		33-34		

TBS XXX means to be selected by KCTCS student.

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

For Social and Behavioral Sciences courses, two disciplines must be represented and different from those in the Arts and Humanities category.

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 must take (MAT 151 or STA 151 or MAT 161) and STA 251 to satisfy the STA 205 requirement at NKU. Students will need MAT 150 as a prerequisite for NKU courses. Additional mathematics and/or statistics courses can be used in Category 2 below.

Category 2: KCTCS AS Requirements

KCTCS Course	Course or Category	Credits	NKU Course	Completed
TBS XXX	Quantitative Reasoning or Natural Science (OR/SL)	3	TBD XXX	
TBS XXX	Quantitative Reasoning or Natural Science (OR/SL)	3	TBD XXX	
Subtotal AA Requirement Courses		6		

Category 3: KCTCS Electives

KCTCS Course	Course or Category	Credits	NKU Course	Completed
	First-Year Experience	0-3	UNV 100T	
CIT 105	Introduction to Computers (if needed)	0-3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 130	
CIT 120	Computational Thinking	3	INF 100T	
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	Level I Programming Language Course: PHP I or C++ I or C# I or Python I or Perl I or Swift I or Programming I: Language or Visual Basic I or Java I or Introduction to Computer Programming	3	INF 120 (CIT 149 = CSC 260)	
CIT 150 or CIT 155	Internet Technologies (CIT Technical) or Web Page Development (CIT Technical)	3	INF 286	
CIT 160 or CIT 161	Intro to Networking Concepts or Introduction to Networks	4	INF 284	
CIT 170	Database Design and Fundamentals	3	INF 282	
TBS XXX	Elective	0-3	TBD XXX	
	Subtotal Elective Courses	20-23		
	Total Associate Degree Hours	60-63		

Degree Requirement: One course must be selected from the KCTCS identified Cultural Studies course list in the KCTCS catalog.

Northern Kentucky University

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	x
INF 282	Introduction to Databases	3	CIT 170	x
INF 284	Introduction to Computer Networks	3	CIT 160 or CIT 161	x
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	x

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 130	Information Technology Fundamentals	3	CIT 111	x
CIT 171	Introduction to Linux	1	CIT 217	
CIT 271	Windows Administration	3	CIT 215 or CIT 216	
CIT 285	Cybersecurity Fundamentals	3	CIT 180 + CIT 182 = CIT 285 + CIT 100T	
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	x
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 Non-Specialist Track (Required courses are listed in Categories 6-9 tables below.)	18		
	Subtotal Major Credit Hours at NKU	41		
	Subtotal Major Credit Hours KCTCS	18		
	Total Major Credit Hours	59		

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 courses taken for the major. (Required courses for these minors are listed in Categories 10-11 tables below.)	12-24		
	Subtotal Elective Credit Hours	0-7		
	Total Baccalaureate Degree Credit Hours	120-128		

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 CIT 483	Object-Oriented Programming II or Scripting II	3	CIT 249 = CSC 360	
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		
TBS XXX	One 300/400-level CIT or CYS course (not listed above)	3		
TBS XXX	One 300/400-level CIT or CYS course (not 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
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	x
INF 282	Introduction to Databases	3	CIT 170	x
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	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 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	x
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		

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**KCTCS AS TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY – WEB AND DATABASE
ADMINISTRATION OR NON-SPECIALIST TRACK 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	
ENG 102	Writing II (WC)	3	ENG 291	
COM 181	Basic Public Speaking (OC)	3	CMST 101	
TBS XXX	Arts & Humanities (AH) Heritage	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Humanities	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Natural Science with Lab (SL)	3-4	TBD XXX	
TBS XXX	Natural Science (NS)	3	TBD XXX	
MAT 150 or MAT/STA 151	College Algebra (QR) or Introduction to Statistics (QR)	3	(MAT 102 or MAT 103) + MAT 100T or STA 100G	
STA 220 or STA 251	Statistics (QR) or Applied Statistics (QR)	3	STA 205	
	Subtotal General Education Courses	33-34		

TBS XXX means to be selected by KCTCS student.

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

For Social and Behavioral Sciences courses, two disciplines must be represented and different from those in the Arts and Humanities category.

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 must take (MAT 151 or STA 151 or MAT 161) and STA 251 to satisfy the STA 205 requirement at NKU. Students will need MAT 150 as a prerequisite for NKU courses. Additional mathematics and/or statistics courses can be used in Category 2 below.

Category 2: KCTCS AS Requirements

KCTCS Course	Course or Category	Credits	NKU Course	Completed
TBS XXX	Quantitative Reasoning or Natural Science (OR/SL)	3	TBD XXX	TBS XXX
TBS XXX	Quantitative Reasoning or Natural Science (OR/SL)	3	TBD XXX	TBS XXX
	Subtotal AA Requirement Courses	6		

Category 3: KCTCS Electives

KCTCS Course	Course or Category	Credits	NKU Course	Completed
	First-Year Experience	0-3	UNV 100T	
CIT 105	Introduction to Computers (if needed)	0-3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 100T	
CIT 120 + CIT 149 + CIT 249	Computational Thinking and Java I and Java II	3 3 3	INF 120 + CSC 260 + CSC 360	
CIT 150 or CIT 155	Internet Technologies or Web Page Development	3	INF 286	
CIT 160 or CIT 161	Intro to Networking Concepts or Introduction to Networks	4	INF 284	
CIT 170	Database Design and Fundamentals	3	INF 282	
	Subtotal Elective Courses	23		
	Total Associate Degree Hours	62-63		

Degree Requirement: One course must be selected from the KCTCS identified Cultural Studies course list in the KCTCS catalog.

Northern Kentucky University

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		
INF 120	Elementary Programming	3	CIT 120 + CIT 149 + CIT 249 = INF 120 + CSC 260 + CSC 360	x
INF 282	Introduction to Databases	3	CIT 170	x
INF 284	Introduction to Computer Networks	3	CIT 160 or CIT 161	x
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	x
CIT 130	Information Technology Fundamentals	3	CIT 111	
CIT 171	Intro to Linux Systems	1	CIT 217	
CIT 271	Windows Administration	3	CIT 215 or CIT 216	
CIT 285	Cybersecurity Fundamentals	3	CIT 180 + CIT 182 = CIT 285 + CIT 100T	
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	x

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3		
	Select one track from following tracks: Web and Database Administration Track Non-Specialist Track (Required courses are listed in Categories 6-7 tables below.)	18		
	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 courses taken for the major. (Required courses for these minors are listed in Categories 8-9 tables below.)	12-24		
	Subtotal Elective Credit Hours	0-3		
	Total Baccalaureate Degree Credit Hours	120-130		

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 recommended tracks for this pathway are Web and Database Administration Track and Non-Specialist Track. The course requirements for these tracks are listed in Category 6 tables below.

Category 6: 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	x
CSC 360	Object-Oriented Programming II	3	CIT 249	x
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		

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
ASE 456 or CIT XXX	Cross-Platform Development or One 300/400-level CIT course (not listed above)	3		
	Additional Credit Hours for Track	12		

Category 7: 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	x
CSC 360	Object-Oriented Programming II	3	CIT 249	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 (not listed above)	3		
CIT XXX	One 300/400-level CIT course (not listed above)	3		
	Additional Credit Hours for Track	12		

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

Category 8: 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 CIT 149 or CS 115	x
INF 282	Introduction to Databases	3	CIT 170	x
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	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 of courses in the NKU Undergraduate Catalog under Information Systems Minor	3		
	Additional Credit Hours for Minor Track	15		

Category 9: 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	x
CSC 260	Object-oriented Programming I	3	CIT 149	x
CSC 360	Object-oriented Programming II	3	CIT 249	x
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	9		

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