



TWO DEGREES, ONE PATH

TRANSFER PATHWAY GUIDE 2019-2020

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 in Science degree at the Gateway Community and Technical College and leads to the Bachelor of Science in Computer Information Technology degree at Northern Kentucky University.

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 Gateway2NKU 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 Gateway CTC, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at Gateway CTC.

Degree Requirements for GCTC

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, 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. 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 GCTC.

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.

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.

GCTC AS TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY – ALL TRACKS CHECKLIST

Gateway Community and Technical College

Category 1: GCTC General Education Requirements (33 hours)

GCTC 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	College Algebra (QR)	3	(MAT 102 or MAT 103) + MAT 100T	
STA 220	Statistics (QR)	3	STA 205	
Subtotal General Education Courses		33-34		

TBS XXX means to be selected by GCTC student.

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

One of these courses must be selected from the KCTCS identified Cultural Studies course list, indicate by placing (CS) next to the course name in Category 1 or 2 table.

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 can take MAT 151 or MAT 161 or STA 151 and STA 251 in place of STA 220; however, students will need MAT 150 as a prerequisite for NKU courses. The additional mathematics/statistics course can be used in Category 2 below.

Category 2: GCTC AS Requirements (6 hours)

GCTC Course	Course or Category	Credits	NKU Course	Completed
TBS XXX	Quantitative Reasoning (QR)	3	TBD XXX	TBS XXX
TBS XXX	Quantitative Reasoning (QR)	3	TBD XXX	TBS XXX
Subtotal AS Requirement Courses		6		

Category 3: GCTC Electives (21 hours)

GCTC 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	Computational Thinking	3	INF 100T	
CIT 141 or	Level I Programming Language Course: PHP I or	3	INF 120	

GCTC Course	Course or Category	Credits	NKU Course	Completed
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	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			
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 or Introduction to Networks	4	INF 284	
CIT 170	Database Design and Fundamentals	3	INF 282	
TBS XXX	Elective	3	TBD XXX	
	Subtotal Elective Courses	23		
	TOTAL Associate Degree Hours	62-63		

Northern Kentucky University

Category 4: Major Requirements for BS in Computer Information Technology

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
INF 100	Orientation to College of Informatics	1	Waived for students with AS 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 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 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 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		

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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 (Required courses are listed in Category 5 tables below.)	18		
	Subtotal Major Credit Hours at NKU	43		
	Subtotal Major Credit Hours GCTC	12		
	Total Major Credit Hours	55		

Category 5: Additional Requirements at NKU

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
	Subtotal Minor Credit Hours Focus or Minor and Electives to meet NKU graduation requirements. Any NKU focus or 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 7 tables below.)	At Least 18		
	Total Baccalaureate Degree Credit Hours	121-122		

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	GCTC Course	Taken at GCTC
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 above)	3		
CIT XXX	300/400-level CIT Course (not above)	3		
	Additional Credit Hours for Track	18		

Category 6: NKU Major Requirements for the Web and Database Administration Track

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CSC 260	Object-Oriented Programming I	3	CIT 149 + CIT 249 =	

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
			CSC 260 + CSC 360	
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3	CIT 149 + CIT 249 = CSC 260 + CSC 360	
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 (not above)	3		
	Additional Credit Hours for Track	18		

Category 6: NKU Major Requirements for the Cybersecurity Track

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CIT 247	Networking Fundamentals	3	CIT 167	
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		
	Additional Credit Hours for Track	18		

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

Category 6: NKU Major Requirements for the Non-Specialist Track

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CSC 260	Object-Oriented Programming I	3	CIT 149 + CIT 249 = CSC 260 + CSC 360	
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3	CIT 149 + CIT 249 = CSC 260 + 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		
CIT XXX	One 300/400-level CIT course (not above)	3		
CIT XXX	One 300/400-level CIT course (not 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 7: NKU Requirements for the Information Systems Minor

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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 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 for Minor	15		

Category 7: NKU Requirements for the Computer Science Minor

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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 +CIT 24 = CSC 260 +CSC 360	
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3	CIT 149 + CIT 249 = CSC 260 + CSC 360	
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 6 (met by CIT major requirements)	6		
	Additional Credit Hours for Minor	15		

GCTC AS TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY – WEB AND DATABASE ADMINISTRATION OR NON-SPECIALIST TRACK CHECKLIST

Gateway Community and Technical College

Category 1: GCTC General Education Requirements (33 hours)

GCTC 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	College Algebra (QR)	3	(MAT 102 or MAT 103) + MAT 100T	
STA 220	Statistics (QR)	3	STA 205	
	Subtotal General Education Courses	33-34		

TBS XXX means to be selected by GCTC student.

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

One of these courses must be selected from the KCTCS identified Cultural Studies course list, indicate by placing (CS) next to the course name in Category 1 or 2 table.

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 can take MAT 151 or MAT 161 or STA 151 and STA 251 in place of STA 220; however, students will need MAT 150 as a prerequisite for NKU courses. Additional mathematics/statistics courses can be applied in Category 2: GCTC AS Requirements below.

Category 2: GCTC AS Requirements (6 hours)

GCTC Course	Course or Category	Credits	NKU Course	Completed
TBS XXX	Quantitative Reasoning (QR)	3	TBD XXX	TBS XXX
TBS XXX	Quantitative Reasoning (QR)	3	TBD XXX	TBS XXX
	Subtotal AS Requirement Courses	6		

Category 3: GCTC Electives (21 hours)

GCTC 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 +	Computational Thinking and	3	INF 120 +	
CIT 149 +	Java I and	3	CSC 260 +	
CIT 249	Java II	3	CSC 360	
CIT 150 or	Internet Technologies or	3	INF 286	

GCTC Course	Course or Category	Credits	NKU Course	Completed
CIT 155 or IMD 230	Web Page Development or Advanced Web Design			
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		

Northern Kentucky University

Category 4: Major Requirements for BS in Computer Information Technology

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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 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 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 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		
	Select one track from following tracks: Web and Database Administration Track Non-Specialist Track (Required courses are listed in Category 6 tables below.)	18		
	Subtotal Major Credit Hours at NKU	34		
	Subtotal Major Credit Hours GCTC	21		
	Total Major Credit Hours	55		

Category 5: Additional Requirements at NKU

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
	Subtotal Minor Credit Hours			
	Focus or Minor and Electives to meet NKU graduation requirements. Any NKU focus or 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 7 tables below.)	At Least 24		
	Total Baccalaureate Degree Credit Hours	120		

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	GCTC Course	Taken at GCTC
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
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 (not above)	3		
	Additional Credit Hours for Track	12		

Category 6: NKU Major Requirements for the Non-Specialist Track

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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		

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		
CIT XXX	One 300/400-level CIT course (not above)	3		
CIT XXX	One 300/400-level CIT course (not 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 7: NKU Requirements for the Information Systems Minor

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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 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 for Minor Track	15		

Category 7: NKU Requirements for the Computer Science Minor

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
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 +CIT 24 = CSC 260 +CSC 360	x
CSC 360	Object-oriented Programming II	3	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 6 (met by CIT major requirements)	0		
	Additional Credit Hours for Minor	9		

Updated May 2019