

# TRANSFER PATHWAY GUIDE 2021-2022

Associate in Science to Bachelor of Science in Computer Science

#### **Overview**

Completion of the following curriculum will satisfy the requirements for the Associate in Science (AS) degree at a Kentucky Community and Technical College System (KCTCS) institution and leads to the Bachelor of Science (BS) in Computer Science degree at Northern Kentucky University (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) 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 a grade of C- or better in each course counted toward the major. 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.

## KCTCS AS TO NKU BS IN COMPUTER SCIENCE CHECKLIST

# **Kentucky Community and Technical College System**

**Category 1: KCTCS General Education Core 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	
TBS XXX	Oral Communication (OC)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) – Heritage	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) – Humanities	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences Course (SB)	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences Course (SB)	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences Course (SB)	3	TBD XXX	
TBS XXX	Natural Science Course with Lab (SL)	4	TBD XXX	
TBS XXX	Natural Science Course (NS)	3	TBD XXX	
MAT 171	Procedentus (OP)	5	MAT 103 +	
IVIAI 1/1	Precalculus (QR)	)	MAT 119	
MAT 175	Calculus I (QR)	5	MAT 129	
	Subtotal General Education Core Courses	41		

TBS XXX means to be selected by KCTCS student.

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

**Category 2: KCTCS AS Requirements** 

KCTCS Course	Course or Category	Credits	NKU Course	Completed
MAT 185	Calculus II (QR)	5	MAT 227	
	Subtotal AS Requirement Courses	5		

**Category 3: KCTCS Electives** 

KCTCS Course	Course or Category	Credits	NKU Course	Completed
	First-Year Experience	0-3		
CIT 105	Introduction to Computers	3	BIS 101	
CIT 120	Computational Thinking	3	INF 100T	
CIT 149	Java I	3	INF 120	
CIT 155	Web Page Development	3	INF 286	
CIT 238	Android Programming I	3	CSC 260	
CIT 249	Java II	3	CSC 360	
	Subtotal Elective Courses	21		
	Total Associate Degree Hours	64		

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

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

# **Northern Kentucky University**

Category 4: NKU Major Requirements for BS in Computer Science

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
			Waived for	
INF 100	Orientation to College of Informatics	1	students	
200	orientation to conege or innormation	_	with AS	
			degree	
INF 120	Elementary Programming	3	CIT 149	X
	Introduction to Computer Networks OR		CIT 160, CIT	
INF 284 or	Networking Fundamentals	3	161, CIT	
CIT 247	Recommend: CIT 247 for CIT Minor Req.		209, CIT	
	·		214, CIT 219	
INF 286	Introduction to Web Development	3	CIT 155	X
CSC 260	Object-Oriented Programming I	3	CIT 238	Х
CSC 350	Database Programming	3		
CSC 360	Object-Oriented Programming II	3	CIT 249	X
CSC 362	Computer Systems	3		
CSC 364	Data Structures and Algorithms	3		
CSC 402	Advanced Programming Methods	3		
CSC 439	Software Testing and Maintenance	3		
CSC 440	Software Engineering	3		
CSC 460	Operating Systems	3		
CSC 485	Theory of Computation	3		
CSC 491	Comprehensive Examination	0		
CSC XXX	Select one 300/400-level CSC course not	3		
CSC XXX	included above. (see catalog)	3		
	Select two 400-level CSC courses not			
TBS XXX	included above; only one of CSC 415 or CSC			
	416 may count towards this requirement.	6		
TBS XXX	MAT 360 may count for either a 300-level			
	or 400-level course.			
MAT 128	Calculus A	3	MAT 175	х
MAT 227	Calculus B	3	MAT 185	х
MAT 228	Calculus C	3		
STA 250	Probability and Statistics I	3		
MAT 385	Discrete mathematics	3		
	Subtotal Major Credit Hours at NKU	46		
	Subtotal Major Credit Hours at KCTCS	18		
	Total Major Credit Hours	64		

Note: No more than 6 hours of CSC 392/399/492/499 can count toward the major.

**Category 5: Additional Requirements at NKU** 

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
	Subtotal Minor Credit Hours Taken at NKU	3-24		
	Subtotal Elective (300/400 level) Hours	0-6		
	Subtotal Elective (other) Hours	0-1		
	Minimum Baccalaureate Degree Credit Hours	120		

Note: In order to complete a B.S. degree in Computer Science at NKU, a student must complete a minor. A mathematics, computer information technology, or information systems minor would be a good choice. Categories 6-8 tables below show the courses needed for the suggested minors. Students should discuss options for minors with an NKU advisor after transferring to NKU.

**Category 6: NKU Requirements for Minor in Mathematics** 

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
MAT 119	Precalculus	3	MAT 171	х
MAT 129	Calculus A	3	MAT 175	х
MAT 227	Calculus B	3	MAT 185	х
MAT 228	Calculus C	3		
MAT 234	Linear Algebra	3		
STA 250	Probabilities and Statistics	3		
MAT 385	Discrete Math	3		
	Additional Credit Hours for Mathematics Minor beyond the major	3		

Category 7: NKU Requirements for Minor in Computer Information Technology

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CIT 171	Introduction to Linux	1		
CIT 271 or	Windows Administration or	3		
CIT 371	Unix Systems	3		
			One of	
INF 110 or			CIT 144	
INF 120 or	Elementary Programming	3	CIT 145	v
===	Elementary Programming	3	CIT 147	Х
CSC 260			CIT 148	
			CIT 149	
INF 284	Introduction to Computer Networks	3		
CIT XXX	Select one 300/400 level CIT course not	3		
CITAAA	listed above	3		
	Select 6 credit hours of INF, CIT, or CSC	6		
	courses not included above	U		

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
	Additional Credit Hours for Computer			
	Information Technology Minor beyond the	16		
	major			

# Category 8: NKU Requirements for Minor in Information Systems

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
INF 120	Elementary Programming	3	One of CIT 144 CIT 145 CIT 147	х
			CIT 148 CIT 149	
INF 282	Introduction to Databases	3	CIT 170	
INF 286	Introduction to Web Development	3	CIT 155	х
BIS 275	Introduction to Business Analysis	3		
BIS 300	Management Information Systems	3		
BIS 310	Systems Analysis and Design	3		
BIS 330	IT Project Management	3		
Select one: BIS 305, BIS 357, BIS 380, BIS 382, BIS 384, BIS 402, BIS 420, BIS 430, BIS 435, BIS 440, CYS 3XX, CYS 4XX	Choose one BIS or CYS Elective	3		
2.3 370, 213 477	Additional Credit Hours for Information Systems Minor beyond the major	18		

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