TRANSFER PATHWAY GUIDE
2019-2020

Associate of Science in Software Development To
Bachelor of Science in Computer Information Technology

Overview

Completion of the following curriculum will satisfy the requirements for the **Associate of Science in Software Development** degree at Ivy Tech Community College and leads to the **Bachelor of Science in Computer Information Technology** degree at Northern Kentucky University.

Applying to the IvyTech2NKU 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 Ivy Tech, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at Ivy Tech.

Degree Requirements for Ivy Tech

To earn a degree at Ivy Tech a student must successfully complete the required number of credits for the degree, attain a minimum GPA of 2.0 in the required technical and general education courses, and complete at least 15 degree credits in the curriculum as a regular student of Ivy Tech.

Admission Requirements for NKU

Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU. In addition, students must earn a grade of C- or better in each course that counts as part of the Computer Information Technology major.

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 requirements for the major. In some cases, students must complete a focus or minor as indicated on the pathway.

Ivy Tech Community College of Indiana

Students must complete the following courses for an Associate of Science degree in Software Development.

Category 1: Transfer General Education Core (TGEC) Competencies

ITCC Course	Course or Category	Credits	NKU Course	Completed
ENGL 111	Written Communication	3	ENG 101	
COMM 101 or COMM 102	Speaking and Listening	3	CMST 101 or CMST 220	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Social and Behavioral Ways of Knowing	3-4	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3-4	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
	Subtotal General Education Core	**30-38**		

TBS XXX means to be selected by Ivy Tech student
TBD XXX means to be determined by NKU based on course selected at Ivy Tech

Category 2: Degree Requirements for Associate of Science in Software Development and NKU Recommendations

ITCC Course	Course or Category	Credits	NKU Course	Completed
IVYT 111	Student Success in University Transfer	1	UNV 100T	
INFM 109	Informatics Fundamentals and	3	BIS 101	
DBMS 110	Database Design and Management	3		
ITSP 135	Hardware/Software Support	4		
SDEV 120	Computer Logic	3	INF 100T	
SDEV 140	Introduction to Software Development	3		
SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	Software Development using Java or Software Development using Visual Basic or Software Development using Python or Software Development using C++ or Software Development using C# or	3	INF 120	
CPIN 279	Computing and Informatics Exploration and Evaluation	1	INF 200T	
SVAD 121	Transfer Cluster Elective – Enterprise Computing	3	CIT 271	
DBMS 210	Transfer Cluster Elective – Database Design and Development	3	DBMS 110 + DBMS 210 = INF 282 + INF 200T	
SDEV 153	Transfer Cluster Elective – Web Site Development	3	INF 286	
	Total Associate Degree Credit Hours	**60-68**		

Northern Kentucky University

Students must complete the following for a B.S. in Computer Information Technology: the core requirements, a minor or area of focus, and one of the four tracks.

Students with an associate degree can earn course credit by meeting the following criteria:

For CIT 247 credit, <u>one</u> of the following criteria must be met.
- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Entry Level (CCENT) certification

For CIT 447 credit, <u>both</u> of the following criteria must be met.
- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Network Associate Routing and Switching (CCNA R&S) certification

Category 3: Core Requirements for the B.S. in Computer Information Technology

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
INF 100	Orientation to College of Informatics	1	Waived for students with AS degree	
INF 120	Elementary Programming	3	SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	x
INF 282 or CSC 350	Introduction to Databases or Database Programming	3	DBMS 110 + DBMS 210 = INF 282 + INF 200T	x
INF 284	Introduction to Computer Networks	3	NETI 105	
INF 286	Introduction to Web Development	3	SDEV 153	x
CIT 130	Information Technology Fundamentals	3	INFM 109 + CSIA 105 = CIT 130 + CIT 100T	
CIT 271	Windows Administration	3	SVAD 121	x
CIT 285	Cybersecurity Fundamentals	3	CSIA 215 + CSIA 235 = CIT 285 + CIT 200T	
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
STA 205 or STA 250	Statistical Methods or Probability and Statistics	3		
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3	ENGL 211	
	Minor or Area of Focus	15-24		
	Subtotal Core Courses Credit Hours	**40-49**		

Students must choose one of the following tracks: Network and System Administration Track, Web and Database Administration Track, Cybersecurity Track, or Non-Specialist Track

Category 4: Requirements for the Network and System Administration Track

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 247	Networking Fundamentals	3	NETI 105 and (CSIA 210 or NETI 115)	
CIT 447	Network Design/Troubleshooting	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification	
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
Select two 300/400 level CIT courses	CIT Electives	6		
	Additional Track Credit Hours	**18**		
	Total Bachelor Degree Credit Hours	**120-134**		

An alternative equivalency is NETI 105 and NETI 115 or CCENT certification.
Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

Category 4: Requirements for the Web and Database Administration Track

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3		
CSC 301	Web Programming	3		
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
CSC 456 or One 300/400 CIT	Advanced Web Application Development or CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
	Additional Track Credits	**18**		
	Total Bachelor Degree Credit Hours	**120-134**		

Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

Category 4: Requirements for the Cybersecurity Track

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 247	Networking Fundamentals	3	NETI 105 and (CSIA 210 or NETI 115)	
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
Select two 300/400 level CIT course or BIS 382 or CSC 482 or CSC 483	Track Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies one elective requirement	
	Additional Track Credits	**18**		
	Total Bachelor Degree Credit Hours	**120-134**		

An alternative equivalency is NETI 105 and NETI 115 or CCENT certification.
Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

Category 4: Requirements for the Non-Specialist Track

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CSC 483	Object-Oriented Programming II or Scripting II	3		
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		
Select two 300/400 level CIT course	CIT Electives	6	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies one elective requirement	
	Additional Track Credits	**18**		
	Total Bachelor Degree Credit Hours	**120-134**		

Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.