TRANSFER PATHWAY GUIDE
2023-2024

Associate of Science in Computer Science To
Bachelor of Science in Computer Science

Overview
Completion of the following curriculum will satisfy the requirements for the Associate of Science (AS) in Computer Science degree at Ivy Tech Community College (ITCC) and leads to the Bachelor of Science (BS) in Computer Science degree at Northern Kentucky University (NKU).

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 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.

Ivy Tech Community College of Indiana

Students must complete the following courses for an AS in Computer Science.

Category 1: ITCC Indiana College Core Competencies

ITCC Course	Course or Category	Credits	NKU Course	Completed
ENGL 111	English Composition	3	ENG 101	
COMM 101	Fundamentals of Public Speaking	3	CMST 101	
MATH 211	Calculus I	4	MAT 129	
MATH 212	Calculus II	4	MAT 229	
Choose 1 track: BIOL 105 and BIOL 107 CHE 105 and CHEM 106 PHYS 220 and PHYS 221	Choose one of the following tracks: Biology Track Biology I Molecular and Cellular Processes Biology II Diversity of Life Chemistry Track General Chemistry I General Chemistry II Physics Track Mechanics Heat, Electricity and Optics	10	BIO 150/150L BIO 151/151L CHE 120/120L CHE 121/121L PHY 200G/ PLAB 200G	
TBS XXX	Social and Behavioral Ways of Knowing	3	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3	TBD XXX	
	Subtotal General Education Core	**30**		

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: ITCC Degree Requirements for AS in Computer Science and NKU Recommendations

ITCC Course	Course or Category	Credits	NKU Course	Completed
IVYT 115	Student Success – Information Technology	1	UNV 100T	
CSCI 101 and CSCI 201 and CSCI 202	Computer Science I and Computer Science II and Data Structures	9	CSC 260 + CSC 360 + CSC 100T	
CSCI 105	Discrete Logic for Computers	3	CSC 100T	
CSCI 210	Database Systems	3	INF 282	
INFM 109	Informatics Fundamentals	3	CIT 130	
SDEV 120	Computer Logic	3	INF 100T	
Choose 1: SDEV 200 SDEV 220 SDEV 240 SDEV 260 CSCI 205 MATH 261	Choose one course from the following: Software Development using Java Software Development using Python (preferred) Software Development using C# (2nd choice) iOS Swift Application Development Computer Organization and Architecture Multivariate Calculus	3	 INF 120 INF 120 INF 120 CSC 200T MAT 329	

ITCC Course	Course or Category	Credits	NKU Course	Completed
MATH 264	Differential Equations		MAT 325	
MATH 265	Linear Algebra		MAT 234	
SDEV 265	Systems/Software Analysis and Projects	3	CSC 200T	
CSCI 279	Computer Science Capstone	1	INF 200T	
Choose 1:	Choose one Work Force Preparation or CO-OP:			
SDEV 271	WF Prep: Java Foundations Certification		ASE 200T	
SDEV 272	WF Prep: Python		ASE 200T	
SDEV 273	WF Prep: C++ Institute Certified Associate Programmer Certification	1	ASE 200T	
SDEV 274	WF Prep: Microsoft C# Jump Start Certification		ASE 200T	
CPIN 280	Computing and Informatics CO-OP/Internship/ Externship		INF 200T	
Total Associate Degree Credit Hours		**60**		

Students who complete MATH 212 and MATH 261 will receive credit for MAT 229: Calculus II and MAT 329: Calculus III.

Northern Kentucky University

Students must complete the following for a BS in Computer Science

Category 3: ITCC Major Requirements for the BS in Computer Science

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 220	x
INF 284 or CIT 247	Introduction to Networks or Networking Fundamentals	3	NETI 104	
INF 286	Introduction to Web Development	3	SDEV 153	
CSC 260	Object-Oriented Programming I	3	CSCI 101 + CSCI 201 + CSCI 202 = CSC 260 + CSC 360 + CSC 100T	x
CSC 350	Database Programming	3		
CSC 360	Object-Oriented Programming II	3	CSCI 101 + CSCI 201 + CSCI 202 = CSC 260 + CSC 360 + CSC 100T	x
CSC 362	Computer Systems	3		

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
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 included above. CIT 381 may count toward this elective.	3		
TBS XXX TBS XXX	Select two 400-level CSC courses not included above. MAT 360 may count for either a 300-level or 400-level course.	6		
MAT 128 MAT 227 MAT 228	Calculus A Calculus B Calculus C	9	Satisfied by MAT 211 and MAT 212	x
STA 250	Probability and Statistics	3		
MAT 385	Discrete Mathematics	3		
	Subtotal Major Credit Hours at NKU	**45**		
	Subtotal Major Credit Hours at ITCC	**18**		
	Total Major Credit Hours	**63**		

Category 4: Additional Requirements at NKU

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
	Subtotal Minor Credit Hours Taken at NKU	**6-24**		
	Subtotal Elective (300/400 level) Hours	**0-9**		
	Total Baccalaureate Degree Credit Hours	**120-129**		

Note: In order to complete a BS degree in Computer Science at NKU, a student must complete a minor. A mathematics, computer information technology, or information systems minor are popular choices for students pursuing Computer Science, as some of the requirements are fulfilled through courses taken in the major.

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