Associate of Science in Computer Science To

Bachelor of Science in Computer Science

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

Admission Requirements for a Bachelor of Science in Computer Science
- A grade point average of 2.0 or higher on a 4-point scale
- A grade of C- or better in each course that counts as part of the Computer Science major
- A completed application to Northern Kentucky University

Ivy Tech Community College of Indiana

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

Category I: Transfer General Education Core (TGEC) Competencies				
ITCC Course	**Course or Category**	**Credits**	**NKU Course**	✓
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 227	
BIO 105 or PHYS 220	Biology I Molecular and Cellular Processes or Mechanics	5	BIO 150/150L PLAB 200G	
BIO 107 or PHYS 221	Biology II Diversity of Life or Heat, Electricity and Optics	5	BIO 151/151L PLAB 200G	
TBS XXX	Social and Behavioral Ways of Knowing	3-4	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3-4	TBD XXX	
Subtotal General Education Core		**30-32**		

TBS=to be selected by Ivy Tech student

TBD=to be determined by NKU based on course selected at Ivy Tech

Category II: Degree Requirements for Associate of Science in Computer Science and NKU Recommendations				
ITCC Course	**Course or Category**	**Credits**	**NKU Course**	✓
IVYT 111 or 115	Student Success in University Transfer	1	UNV 100T	
CSCI 101 and CSCI 102 and CSCI 202	Computer Science I and Computer Science II and Computer Science III	9	INF 120 and CSC 260 and INF 100T	
CSCI 210 and NETI 100 and SDEV 153	Database Systems and Network Communications and Web Site Development	9	INF 282 and INF 284 and INF 286	
ITSP 135	Hardware/Software Support	4		
CSCI 105	Discrete Logic for Computers	3		
SDEV 220*	Software Development using Python	3	INF 110	
CPIN 279	Computing and Informatics Exploration and Evaluation	1	INF 200T	
Total Associate Degree Credit Hours		**60-62**		

*SDEV 220 is the preferred choice; however, students can also take SDEV 200, SDEV 210 or SDEV 240.

Northern Kentucky University

Students must complete the following for a B.S. in Computer Science with a minor in Information Systems.

NKU Course	Course	Credits	ITCC Course	Taken at ITCC
Category III: Major Requirements for the BS in Computer Science with a minor in Information Systems**				
INF 120	Elementary Programming	3		X
INF 282	Introduction to Databases	3		X
INF 284 or CIT 247	Introduction to Networks and Data Communication or Networking Fundamentals	3		X
INF 286	Introduction to Web Development	3		X
CSC 260	Object-Oriented Programming I	3		X
CSC 360	Object-Oriented Programming II	3		
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 3XX-4XX	CSC Elective	3		
CSC 4XX	CSC Elective	3		
CSC 4XX	CSC Elective	3		
ENG 291	Advanced College Writing	3	ENGL 112	
MAT 128 and MAT 227 and MAT 228 OR MAT 129 and MAT 229	Calculus A, B and C or Calculus I and II	9	MATH 211 and MATH 212	Student must take MAT 228 (3 cr) or MAT 229 (5 cr) at NKU
STA 250	Probability and Statistics	3		
MAT 385	Discrete Mathematics	3		
BIS 275	Introduction to Business Analysis	3		
BIS 300	Management Information Systems	3		
BIS 310	Information Systems Analysis	3		
BIS 330	IT Project Management	3		
Select one: BIS 305, BIS 357, BIS 380, BIS 382, BIS 384, BIS 402,	BIS Elective	3		

BIS 420, BIS 430, BIS 435, BIS 440				
Subtotal NKU Courses Credit Hours	**60-62**			
Total Baccalaureate Degree Credit Hours	**120-124**			

**Note: In order to complete a B.S. degree in Computer Science at NKU, a student must complete a minor. The above pathway has an Information Systems Minor built into it. A mathematics minor would also be a good choice. Students should discuss options for minors with an NKU advisor after transferring to NKU.

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