Associate of Applied Science in Computer and Information Technologies – Programming Track to Bachelor of Science in Computer Information Technology – Web and Database Administration Track

Completion of the following curriculum will satisfy the requirements for the **Associate of Applied Science (AAS) in Computer and Information Technologies – Programming Track** degree at a Kentucky Community and Technical College System institution and leads to the **Bachelor of Science in Computer Information Technology – Web and Database Administration Track** degree at Northern Kentucky University.

Admission Requirements for a Bachelor of Science in Computer Information Technology

Students completing the AAS in Computer and Information Technologies with a gpa of 2.0 or higher will be admitted into the Computer Information Technology major at NKU.

Students with 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 AAS IN COMPUTER INFORMATION TECHNOLOGIES – PROGRAMMING TRACK TO NKU BS IN COMPUTER INFORMATION TECHNOLOGY – WEB AND DATABASE ADMINISTRATION TRACK CHECKLIST

Gateway Community and Technical College

Category I: General Education Requirements				
GCTC Course	**Course or Category**	**Credits**	**NKU Course**	✓
ENG 101	Writing I (WC)	3	ENG 101	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
MAT 150	College Algebra (QR)	3	MAT 109	
TBS XXX	Natural Science with lab (SL)*	3-4	TBD XXX	
Subtotal General Education Courses		**15-16**		

*Students who do not complete a science course with a lab will be required to take an additional science course with a lab at NKU.

TBS XXX means to be selected.   TBD XXX means to be determined.

Category II: Degree Requirements for the AAS in Computer Information Technologies – Programming Track - Programming Software Development Sequence				
GCTC Course	**Course or Category**	**Credits**	**NKU Course**	✓
CIT 105	Introduction to Computers	3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 100T	
CIT 120	Computational Thinking	3	INF 100T	
CIT 144	Python I (Level I Programming Language)	3	INF 120	
CIT 149 + CIT 249	Java I (Level I Programming Language) Java II (Level II Programming Language)	3 3	CSC 260 + CSC 360	
CIT 141 or CIT 142 or CIT 143 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or CS 115	Level I Programming Language Course: PHP I or C++ I or C# I or Perl I or Swift I or Programming I: Language or Visual Basic I or Introduction to Computer Programming	3	CIT 100T (already have INF 120)	
CIT 237 or CIT 238 or CIT 241 or CIT 242 or CIT 243 or CIT 244 or CIT 247 or CIT 248 or CS 215	Level II Programming Language Course: iOS Programming or Android Programming or PHP II or C++ II or C# I or Python II or Programming II: Language or Visual Basic II or Intro Program Design, Instruction, and Problem Solving	3	CSC 200T CSC 260 CIT 200T CSC 200T INF 120 INF 200T INF 120 INF 110 CIT 200T	

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 (Level I Networking) or Introduction to Networks (Level I Networking)	4	INF 284	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 180 + CIT 182	Security Fundamentals and Perimeter Defense (CIT Technical)	3 3	CIT 285 + CIT 200T	
CIT 253	Data Driven Web Pages: Topic	3	CSC 301	
CIT 293	CIT Employability Studies	1	CIT 200T	
Total Associate Degree Credit Hours		**61**		

Northern Kentucky University

Category III: Additional General Education Requirements				
NKU Course	**Course**	**Credits**	**GCTC Course**	**Taken at GCTC**
ENG 291	Advanced College Writing	3	ENG 102	
CMST 101	Public Speaking	3	COM 181	
TBS XXX	Self & Society	6		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
Additional Credit Hours in Business Core		**18**		

Category IV: Major Requirements for the BS in Computer Information Technology – Web and Database Administration Track with a minor in Computer Science*				
NKU Course	**Course**	**Credits**	**GCTC Course**	**Taken at GCTC**
INF 120	Elementary Programming	0	CIT 144	x
INF 282	Introduction to Databases	0	CIT 170	x
INF 286	Introduction to Web Development	0	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 247	Networking Fundamentals	3	CIT 167	
CIT 271	Windows Administration	3	CIT 213 + CIT 215 = CIT 271 + CIT 200T	
CIT 285	Cybersecurity Fundamentals	0	CIT 180 + CIT 182 = CIT 285 + CIT 100T	x
CIT 371	Unix Systems	3		
CIT 383	Scripting	3		
STA 205 or STA 250	Introduction to Statistical Methods or Probability and Statistics	3	STA 220	
PHI 310	Information Ethics	3		

ENG 347	Technical Writing	3		
CSC 260	Object-Oriented Programming I	0	CIT 149 +CIT 249 = CSC 260 +CSC 360	x
CSC 360	Object-Oriented Programming II	0	CIT 149 +CIT 249 = CSC 260 +CSC 360	x
CSC 301	Web Programming	0	CIT 253	x
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
TBS XXX	CSC 456 Advanced Web Application Development or 300/400- level CIT course	3		
CSC 364	Data Structures and Algorithms	3		
CSC XXX	300/400-level CSC Course (not above)	3		
TBS XXX	Additional hours at the 300/400-level to meet the 45 credit hour graduation requirement	12		
Subtotal NKU Courses Credit Hours		**69**		
Total Baccalaureate Degree Credit Hours		**130**		

*Students may choose a different minor which may require additional hours at the 300/400-level to complete the graduation requirement.