TRANSFER PATHWAY GUIDE
2024-2025

Associate in Applied Science in Computer and Information Technologies – Information Security Track to Bachelor of Science in Cybersecurity

Overview
Completion of the following curriculum will satisfy the requirements for the Associate in Applied Science (AAS) in Computer and Information Technologies (Information Security Track) degree at a Kentucky Community and Technical College System (KCTCS) institution and leads to the Bachelor of Science (BS) in Cybersecurity 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) Minimum cumulative GPA 2.0, 2) minimum of 25 percent of credit hours required for the degree earned at the institution awarding the degree, and 3) demonstration of digital literacy.

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. This major includes a minor in Computer Science.

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.

Credits for Certifications: Students with a current certification at the time of registering for classes will receive credit for equivalent NKU courses based on the following course mappings.

Cisco

NKU students who have taken and passed an examination from Cisco, and hold a current certification (at the time of registering for classes) will receive credit for an equivalent NKU course. The chart below shows the semester credit hours and the equivalent NKU course.

EXAMINATION	EQUIVALENT NKU COURSE	TOTAL SEMESTER HOURS
CCNA Exam (200-301)*	CIT 247 Networking Fundamentals CIT 447 Network Design/Troubleshooting	6
CCNP Security Core Exam (350-701)*	CYS 484 Network Security	3
Certified Entry Networking	CIT 247 Networking Fundamentals	3

*Credit given for exams taken after Summer 2020

Computing Technology Industry Association (CompTIA)

NKU students who have taken and passed an examination from CompTIA, and hold a current certification (at the time of registering for classes) will receive credit for an equivalent NKU course. The chart below shows the semester credit hours and the equivalent NKU course.

EXAMINATION	EQUIVALENT NKU COURSE	TOTAL SEMESTER HOURS
Security+ (versions SY0-501 and later)	CIT 285 Cybersecurity Fundamentals	3
Network+	INF 284 Introduction to Computer Networks	3
Linux+	CIT 371 Unix Systems	3

Note: Students with Security+ exams SY0-401 and before will be required to take CIT 285.

KCTCS AAS IN COMPUTER & INFORMATION TECHNOLOGIES – INFORMATION SECURITY TRACK TO NKU BS IN CYBERSECURITY CHECKLIST

Kentucky Community and Technical College System

Category 1: KCTCS General Education Requirements

KCTCS Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
MAT 150 or higher	College Algebra (QR) or Higher level (QR) course	3-5	(MAT 102 or MAT 103) + MAT 100T or TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBS XXX	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBS XXX	
TBS XXX	Natural Science (NS) Recommended: course with lab embedded	3	TBS XXX	
	Subtotal General Education Courses	**15-17**		

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

A grade of A or B in MAT 150 equates to MAT 103 + MAT 100T. Grade of C or D in MAT 150 equates to MAT 102 + MAT 100T.

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

Category 2: KCTCS AAS Requirements for Computer and Information Technologies (Information Security Track)

KCTCS Course	Course or Category	Credits	NKU Course	Completed
CIT 105	Introduction to Computers	3	BIS 101	
CIT 111	Computer Hardware and Software	4	CIT 130	
CIT 227	Introduction to UNIX/Linux Administration (CIT Technical)	3	CIT 171	
CIT 160 or CIT 161	Intro to Networking Concepts (Level I Networking) or Introduction to Networks (Level I Networking)	4	INF 284	
CIT 120	Computational Thinking	3	INF 100T	
Select 1: CIT 141 CIT 142 CIT 143	Select one Level I Programming Language Course: PHP I or C++ I or C# I or		INF 120	

KCTCS Course	Course or Category	Credits	NKU Course	Completed
CIT 144 CIT 145 CIT 146 CIT 147 CIT 148 CIT 149 CS 115	Python I or Perl I or Swift I or Programming I: Language or Visual Basic I or Java I (preferred) or Introduction to Computer Programming		INF 120 INF 120 INF 120 INF 120 INF 120 INF 120 INF 120 CSC 260 INF 120	
CIT 150 or CIT 155	Internet Technologies (CIT Technical) or Web Page Development (CIT Technical)	3	INF 286	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 180 + CIT 182	Security Fundamentals + Perimeter Defense	3 3	CIT 285 + CIT 100T	
CIT 184	Attacks and Exploits	3	CIT 100T	
Select 1: CIT 284 CIT 285 CIT 286 CIT 287 CIT 288	Select one Security Elective course: Computer Forensics or Windows OS Security or UNIX/Linux OS Security or Cisco OS Security or Network Security	3	CIT 200T	
Select 2: CIT 167 CIT 209 CIT 212 CIT 218 CIT 219 CIT 260 CIT 261 CIT 262 CIT 263 CIT 264 CIT 267	Choose two Network Elective courses: Switching & Routing Essentials Scaling Networks Connecting & Scaling Networks UNIX/Linux Net Infrastructure Internet Protocols Network Hardware Installation & Troubleshooting MS Active Directory Services MS Server Infrastructure Advanced Topics in Microsoft Windows: (Topics) Microsoft Server Management UNIX/Linux Network Services Other approved networking courses	6	CIT 247 INF 284 INF 200T CIT 200T INF 284 CIT 141 CIT 200T INF 284 CIT 271 TBD XXX	
CIT 290 or CIT 291 or CIT 293	Internship or CIT Capstone or CIT Employability Studies (preferred)	1-3	TBD XXX TBD XXX INF 201	
	Total Associate Degree Hours	**60-64**		

Northern Kentucky University

Category 3: NKU Additional General Education Courses

NKU Course	Course or Category	Credits	KCTCS Course	Taken at KCTCS
ENG 102	Advanced College Writing	3	ENG 102	
CMST 101	Public Speaking	3	COM 181	
TBS XXX	Natural Science or Science with Lab	3-4		
TBS XXX	Self & Society	6		
TBS XXX	Culture & Creativity	3		
TBS XXX	Global Viewpoints	3		
	Subtotal General Education Credit Hours	**21-22**		

NKU recommends taking these additional general education courses after transferring to NKU to ensure student has enough coursework to fill a semester schedule due to the sequencing of major-level courses.

Category 4: NKU Major Requirements for BS in Cybersecurity

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CYS 285	Cybersecurity Fundamentals	3	CIT 180 + CIT 182	x
CYS 310	Cybersecurity Risk Management	3		
CYS 330	Introduction to Ethical Hacking	3		
CYS 385	Cybersecurity Analysis I	3		
CYS 444	Software Security	3		
CYS 485	Cybersecurity Analysis II	3		
CIT 130	Information Technology Fundamentals	3	CIT 111	x
CIT 171	Introduction to Linux	1	CIT 217	x
CIT 371	Linux System Administration	3		
ASE 230	Server-Side Programming	3		
CSC 260	Object-Oriented Programming I	3	CIT 149	
CSC 350	Database Programming	3	CIT 170 + CIT 171	
CSC 360	Object-Oriented Programming II	3	CIT 249	
CSC 362	Computer Systems	3		
CSC 364	Data Structures and Algorithms	3		
CSC 460	Operating Systems	3		
CSC 482	Computer Security	3		
BIS 300	Management Information Systems	3		
BIS 382	Principles of Information Security	3		
INF 100	Orientation to College of Informatics	1	Waived for students	x

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
			with AAS degree	
INF 120	Elementary Programming	3	CIT 141 or CIT 142 or CIT 143 or CIT 144 or CIT 145 or CIT 146 or CIT 147 or CIT 148 or CS 115	x
INF 201	Foundations of Informatics Professionals	1	CIT 293	x
INF 284	Introduction to Computer Networks	3	CIT 160 or CIT 161	x
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	x
MAT 185	Introductory Discrete Mathematics	3		
PHI 310	Information Ethics	3		
STA 205	Statistical Methods	3	STA 220 or (MAT 151 or MAT 161) + STA 251	
Select 6 cr: ASE 456 BIS 330 CIT 381 CIT 383 CIT 396 CIT 438 CIT 470 CIT 472 CIT 483 CMST 370 CSC 396 CSC 415 CSC 425 CSC 481 CYS 305 CYS 392 CYS 394 CYS 396 CYS 399	Select 6 credit hours from the following: Cross-Platform Development (3 cr) IT Project Management (3 cr) Raspberry PI Based IoT (3 cr) Scripting I (3 cr) Computer Information Technology Practicum (0-3 cr) Cloud Computing (3 cr) Advanced Network and System Administration (3 cr) Database Administration (3 cr) Scripting II (3 cr) Advanced Public Speaking (3 cr) Computer Science Practicum (0-3 cr) Mobile App Development (3 cr) Artificial Intelligence (3 cr) Blockchain and Ethereum Development (3cr) Peer Teaching Assistant Training & Practicum (3 cr) Intermediate Research Experience in CYS (0-3 cr) Intermediate Topics: Cybersecurity (1-3 cr) Cybersecurity Practicum (0-3 cr) Intermediate Independent Study: CYS (1-3 cr)	6		

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CYS 430	Computer Forensics (3 cr)			
CYS 439	Cloud Security (3 cr)			
CYS 484	Network Security (3 cr)			
CYS 492	Advanced Research Experience in CYS (0-3 cr)			
CYS 494	Advanced Topics: Cybersecurity (1-3 cr)			
CYS 499	Advanced Independent Study: CYS (1-3 cr)			
MAT 483	Cryptology (3 cr)			
	Experiential learning experience. See NKU Catalog or talk to an NKU advisor about options.			
	Subtotal Major Credit Hours at NKU	**63**		
	Subtotal Major Credit Hours at KCTCS (if preferred courses selected)	**18**		
	Total Major Credit Hours	**81**		
	Total Baccalaureate Degree Credit Hours	**144-149**		

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