TRANSFER PATHWAY GUIDE
2025-2026

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

Overview
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 Gateway Community and Technical College (GCTC) and leads to the Bachelor of Science (BS) in Cybersecurity degree at Northern Kentucky University (NKU).

Applying to the Gateway2NKU 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 Gateway CTC, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at Gateway CTC.

Degree Requirements for GCTC
1. Completion of minimum 60 credit hours
2. Minimum cumulative GPA 2.0
3. Minimum of 15 credit hours earned at the institution awarding the degree
4. 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:
1. Complete a minimum of 120 credit hours
2. Complete at least 25% of the credit hours at NKU
3. Complete the last 30 credit hours at NKU
4. Complete at least 45 credit hours numbered 300 or above
5. Minimum 2.0 GPA cumulative GPA across all major coursework
6. Meet all requirements for the major
7. Completion of a focus, minor, or second major (if required by the major)

General Transfer Information
Students must complete the online application to NKU. There is no application fee for students who are transferring from GCTC.

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 annual scholarships (fall and spring only). 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.

Tuition and scholarship information specific to transfer students can be viewed on the NKU Adult & Transfer Center website.

Credit for Prior Learning
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
Amazon Web Services (AWS)
NKU students who have completed and passed the AWS Certified Cloud Practitioner certification will receive credit for an equivalent NKU course. Students must submit proof of successful completion of the program. The chart below shows the semester credit hours and the equivalent NKU course.

EXAMINATION	EQUIVALENT NKU COURSE	TOTAL SEMESTER HOURS
AWS Certified Cloud Practitioner	CIT 300T Computer Information Technology Transfer Elective	3

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)*	CIT 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)	CYS 285 Cybersecurity Fundamentals	3

Network+	INF 284 Introduction to Computer Networks	3
Linux+	CIT 371 Unix Systems	3
A+	CIT 130 Information Technology Fundamentals	3

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

GCTC AAS IN COMPUTER & INFORMATION TECHNOLOGIES – PROGRAMMING TRACK TO NKU BS IN CYBERSECURITY CHECKLIST

Gateway Community and Technical College

Category 1: GCTC General Education Requirements

GCTC Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
MAT 150*	College Algebra (QR)	3	(MAT 102 or MAT 103) + MAT 100T	
JUS 101U	Social & Behavioral Sciences (SB) JUS 101U recommended	3	JUS 101	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBD XXX	
TBS XXX	Natural Science Course (NS)	3	TBD XXX	
	Subtotal General Education Courses	**15**		

TBS XXX means to be selected by GCTC 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 at NKU. A 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 may be required to take an additional science with a lab at NKU.

Category 2: GCTC AAS Technical Core Requirements for Computer & Information Technologies

GCTC Course	Course or Category	Credits	NKU Course	Completed
CIT 105	Introduction to Computers	3	INF 101	
CIT 111	Computer Hardware and Software	4	CIT 130	
CIT 120	Computational Thinking	3	INF 100T	
CIT 144	Python I (Level I Programming Language)	3	INF 120	
CIT 160	Intro to Networking Concepts (Level I)	3	CIT 200T	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 171	SQL I	3	CIT 100T	
CIT 180	Security Fundamentals	3	CIT 100T	
CIT 290 or 291	Internship on CIT capstone	3	ISBA 310	
	Subtotal Technical Core Credit Hours	26		

Category 3: GCTC AAS Programming Track Requirements

GCTC Course	Course or Category	Credits	NKU Course	Completed
CIT 149	Java (Level I Programming Language)	3	CSC 260	
CIT 249	Java (Level II Programming Language	3	CSC 360	

GCTC Course	Course or Category	Credits	NKU Course	Completed
CIT 238	Android Programming	3	CSC 260	
CIT 155	Web Page Development	3	INF 286	
CIT 171	SQL I	3	CSC 350	
CIT 253	Data Driven Web Pages: Topic	3	ASE 220	
CIT 299	CIT Professionalism	3		
	Total Associate Degree Hours	**60**		

Category 4: Additional Gateway Requirements for Core General Education Certification

In addition to completing the requirements of the AAS degree, students can complete additional courses from these categories in order to satisfy general education requirements through the completion of an Associate in Science degree at GCTC. If a student completes the AAS degree and transfers on to NKU, they will need to take seven general education courses in addition to the required major courses.

GCTC Course	Course or Category	Credits	NKU Course	Taken at GCTC
ENG 102	Writing II (WC)	3	ENG 102	
TBS XXX	Oral Communication (OC)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities (depending on Gen Ed selected above)	3	TBD XXX	
STA 220	Statistics	3	STA 205	
TBS XXX	Social & Behavioral Science (SB) (different from the discipline taken in Category 1)	3	TBD XXX	
Taken at NKU	Introductory Discrete Mathematics (QR)	3	MAT 185	
TBS XXX	Natural Science with Laboratory (SL)	4	TBD XXX	
	Subtotal General Education Credit Hours	**25**		

Northern Kentucky University

Category 5: NKU Additional General Education Courses

NKU Course	Course or Category	Credits	GCTC Course	Taken at GCTC
ENG 102	Writing II	3	ENG 102	
TBS XXX	Oral Communication	3	TBD XXX	
TBS XXX	Science with a lab	3	TBD XXX	
TBS XXX	Self & Society	6	TBD XXX	
TBS XXX	Culture & Creativity	3	TBD XXX	
TBS XXX	Global Viewpoints	3	TBD XXX	
	Subtotal General Education Credit Hours	**21**		

Category 6: NKU Major Requirements for BS in Cybersecurity

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CYS 285	Cybersecurity Fundamentals	3	CIT 180 + CIT 182	
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	Waived for AAS Completers	x
CIT 371	Linux System Administration	3	CIT 227	
CSC 260	Object-Oriented Programming I	3	CIT 149	x
CSC 325	Introduction to Machine Learning	3		
CSC 350	Database Programming	3	CIT 171	x
CSC 360	Object-Oriented Programming II	3	CIT 249	x
CSC 362	Computer Systems	3		
CSC 364	Data Structures and Algorithms	3		
CSC 425	Artificial Intelligence	3		
CSC 460	Operating Systems	3		
CSC 482	Computer Security	3		
ISBA 300	Management Information Systems	3		
INF 100	Orientation to College of Informatics	1	Waived for AAS Completers	x
INF 120	Elementary Programming	3	CIT 144	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	Taken at NKU	(may be completed)
PHI 310	Information Ethics	3		
STA 205	Statistical Methods	3	STA 220	(may be completed)
Select 6 cr: ASE 456 ISBA 330 CIT 381 CIT 383 CIT 396 CIT 438 CIT 470 CIT 472	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)	6		

CIT 483	Scripting II (3 cr)		
CMST 370	Advanced Public Speaking (3 cr)		
CSC 396	Computer Science Practicum (0-3 cr)		
CSC 415	Mobile App Development (3 cr)		
CSC 425	Artificial Intelligence (3 cr)		
CSC 481	Blockchain and Ethereum Development (3cr)		
CYS 305	Peer Teaching Assistant Training & Practicum (3 cr)		
CYS 392	Intermediate Research Experience in CYS (0-3 cr)		
CYS 394	Intermediate Topics: Cybersecurity (1-3 cr)	CIT 206	
CYS 396	Cybersecurity Practicum (0-3 cr)	+ CIT	
CYS 399	Intermediate Independent Study: CYS (1-3 cr)	207 =	
CYS 430	Computer Forensics (3 cr)	CIT 438	
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	**51-57**	
	Subtotal Credit Hours GCTC	**60-85**	
	Total Major Credit Hours	**81**	
	Total Baccalaureate Degree Credit Hours	**120-136**	

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