



TWO DEGREES, ONE PATH

TRANSFER PATHWAY GUIDE 2024-2025

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 25 percent of credit hours required for the degree 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 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. In some cases, students must complete a focus or minor as indicated on the pathway.

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 \$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)*	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

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	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
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.

Students can take MAT 150 + STA 220 to satisfy the QR general education requirement at Gateway and the STA 205 requirement for the major at NKU. 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 Requirements for Computer & Information Technologies (Programming Track)

GCTC 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 120	Computational Thinking	3	INF 100T	
CIT 144	Python I (Level I Programming Language)	3	INF 120	
CIT 149	Java I (Level I Programming Language)	3	CSC 260	
CIT 249	Java II (Level II Programming Language)	3	CSC 200T	
CIT 238	Android Programming	3	CSC 260	
CIT 155	Web Page Development	3	INF 286	
CIT 160	Intro to Networking Concepts (Level I Networking)	4	INF 284	
CIT 170	Database Design Fundamentals	3	INF 282	
CIT 171	SQL I	3	CIT 100T	
CIT 180	Security Fundamentals	3	CIT 100T	
CIT 227	Introduction to UNIX/Linux Administration	3	CIT 171 + CIT 100T	
CIT 253	Data Driven Web Pages: Topic	3	ASE 220	
CIT 293	CIT Employability Studies	1	INF 201	
	Total Associate Degree Hours	60		

Category 3: 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 the general education requirements at NKU. If a student completes the AAS degree and transfers on to NKU, they will need to take six 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	
TBS XXX	Choose either an additional Natural Science course or an additional Social & Behavioral Science course	3	TBD XXX	
TBS XXX	Natural Science Laboratory (SL)	1	TBD XXX	
	Subtotal General Education Credit Hours	19		

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

Northern Kentucky University

Category 4: 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 5: 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	CIT 227	x
CIT 371	Linux System Administration	3		
ASE 230	Server-Side Programming	3	CIT 241	
CSC 260	Object-Oriented Programming I	3	CIT 149	x
CSC 350	Database Programming	3		
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		
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		
PHI 310	Information Ethics	3		
STA 205	Statistical Methods	3	STA 220	(may be completed)
Select 6 cr:	Select 6 credit hours from the following:			
ASE 456	Cross-Platform Development (3 cr)			
BIS 330	IT Project Management (3 cr)			
CIT 381	Raspberry PI Based IoT (3 cr)			
CIT 383	Scripting I (3 cr)			
CIT 396	Computer Information Technology Practicum (0-3 cr)			
CIT 438	Cloud Computing (3 cr)			
CIT 470	Advanced Network and System Administration (3 cr)			
CIT 472	Database Administration (3 cr)			
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)	6		
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)			
CYS 396	Cybersecurity Practicum (0-3 cr)			
CYS 399	Intermediate Independent Study: CYS (1-3 cr)			
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	64		
	Subtotal Major Credit Hours GTC	17		
	Total Major Credit Hours	81		
	Total Baccalaureate Degree Credit Hours	145		

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