



---

## TWO DEGREES, ONE PATH

---

### TRANSFER PATHWAY GUIDE 2025-2026

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

#### ***Overview***

Completion of the following curriculum will satisfy the requirements for the Associate in Applied Science (AAS) in Computer and Information Technologies – Programming Track degree at a Kentucky Community and Technical College System (KCTCS) institution and leads to the Bachelor of Science (BS) in Applied Software Engineering 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, including earning a C- or better in all courses that count for the major or minor. 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 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)*	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)	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 – PROGRAMMING TRACK TO NKU BS IN APPLIED SOFTWARE ENGINEERING 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	
TBS XXX	Choose one MAT course from approved list. (QR)	3-5	TBD XXX	
TBS XXX	Social & Behavioral Sciences (SB)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) Heritage or Humanities	3	TBD XXX	
TBS XXX	Natural Science (NS or SL)	3	TBD XXX	
	<b>Subtotal General Education Courses</b>	<b>15-17</b>		

TBS XXX means to be selected by KCTCS student.

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

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 Computer and Information Technologies – Programming Track (Programming Software Development Sequence)

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 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 360	
CIT 141 + CIT 241	PHP I (Level I Programming Language) And PHP II (Level II Programming Language)	3 3	ASE 230 + ASE 100T	
CIT 150 or CIT 155	Internet Technologies (CIT Technical) or Web Page Development (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 253	Data Driven Web Pages: Topic	3	ASE 220	
CIT 290 or CIT 291 or CIT 293	Internship or CIT Capstone or CIT Employability Studies	1-3	BIS 310 or BIS 310 or INF 201	
	<b>Total Associate Degree Hours</b>	<b>60-64</b>		

### Category 3: Additional KCTCS Requirements for Core General Education Certification

In addition to completing the requirements of the AAS degree, students can complete additional courses from the following categories in order to satisfy the general education requirements at NKU.

(Declaration of an Associate of Science as a second major would be required.) If a student completes the AAS degree and transfers on to NKU without completing these courses, they will need to take six general education courses in addition to the required major courses.

KCTCS Course	Course or Category	Credits	NKU Course	Taken at KCTCS
ENG 102	Writing II (WC)	3	ENG 102	
COM 181 or COM 252	Basic Public Speaking or Introduction to Interpersonal Communication	3	CMST 101 or CMST 220	
TBS XXX	Heritage or Humanities Course (AH) (whichever was not taken above)	3	TBD XXX	
TBS XXX	Social & Behavioral Science (from a different subject than in category 1 (SB))	3	TBD XXX	
TBS XXX	Natural Science (with lab if lab not completed in category 1)	3-4	TBD XXX	
TBS XXX	Choose either an additional Quantitative Reasoning course or an additional Social & Behavioral Science course	3	TBD XXX	
	<b>Subtotal General Education Credit Hours</b>	<b>18-19</b>		

### 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	Science with Lab	4		
TBS XXX	Self & Society	6		
TBS XXX	Global Viewpoints	3		
	<b>Subtotal General Education Credit Hours</b>	<b>19</b>		

#### Category 4: NKU Major Requirements for BS in Applied Software Engineering

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
ASE 220	Full-Stack Application Development	3	CIT 253	
ASE 230	Server-Side Programming	3	CIT 141 + CIT 241	x
ASE 285	Software Engineering & Security Fundamentals	3		

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
ASE 330	Human-Computer Interaction	3		
ASE 420	Software Design	3		
ASE 456	Cross-Platform Development	3		
ASE 485	Applied Software Engineering Capstone	3		
CIT 171	Introduction to Linux	1		
CSC 260	Object-Oriented Programming	3	CIT 149	x
CSC 260L	Object-Oriented Programming Laboratory	1	Waived if taking CIT 149	x
CSC 350	Database Programming	3	CIT 170 + CIT 171	
CSC 360	Object-Oriented Programming II	3	CIT 249	
INF 286	Introduction to Web Development	3	CIT 150 or CIT 155	x
INF 120	Elementary Programming – NS	3	CIT 144	x
INF 284	Introduction to Computer Networks	3	CIT 160 or CIT 161	x
INF 100	Orientation to College of Informatics	1		
INF 201	Foundations of Informatics Professionals	1	CIT 293	(may be taken)
ENG 347	Technical Writing	3	ENG 204	
LDR 205	Human Relations in Organizations	3		
MAT 185	Introductory Discrete Mathematics – QR	3		
PHI 310	Information Ethics	3		
STA 205	Statistical Methods – QR	3	(MAT 161 + STA 251) or (MAT 151 + STA 251) or STA 215 or STA 220 or STA 291 or STA 296	
TBS XXX	Any advanced 3-hour course (3xx/4xx) not listed above with an ASE, CIT, CSC, CYS, or DSC designator.	3		
ASE 305 ASE 306 ASE x92 ASE x96 CEP 300	Experiential Learning: ASE Dept. Peer Mentorship Training AND ASE Dept. Peer Mentorship OR Applied Software Engineering Research OR Applied Software Eng. Practicum OR Cooperative Education	0-3		
<b>Subtotal Major Credit Hours at NKU</b>		<b>44-48</b>		
<b>Subtotal Major Credit Hours KCTCS</b>		<b>15-16</b>		
<b>Total Major Credit Hours</b>		<b>61-64</b>		

#### Category 5: Additional Requirements at NKU

<b>NKU Course</b>	<b>Course</b>	<b>Credits</b>	<b>KCTCS Course</b>	<b>Taken at KCTCS</b>
	<b>Subtotal Minor/Focus Credit Hours</b>	<b>12-24</b>		
	<b>Subtotal Elective Credit Hours (300+ level)</b>	<b>0-4</b>		
	<b>Total Baccalaureate Degree Credit Hours</b>	<b>120-136</b>		

Updated July 2025