

# TRANSFER PATHWAY GUIDE

## 2025-2026

Associate of Applied Science in Computer Information Systems/Network  
Engineering at Sinclair College to a  
Bachelor of Science in Information Technology  
at Northern Kentucky University

### ***Overview***

Completion of the following curriculum will satisfy the requirements for the Associate of Applied Science (AAS) in Computer Information Systems/Network Engineering degree at Sinclair College and leads to the Bachelor of Science (BS) in Information Technology degree at Northern Kentucky University (NKU).

### ***Degree Requirements for Sinclair College***

To earn a degree at Sinclair College, a student must complete a minimum of 60 credit hours, attain a minimum cumulative GPA of 2.0, and earn a minimum of 20 credit hours at Sinclair College.

### ***Admission Requirements for NKU***

Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU.

The Information Technology, B.S. – Cloud and Systems Administration Track is offered both face-to-face and online.

### ***Tuition and Scholarships***

For information on tuition and scholarships, please visit <https://nku.edu/admissions/adult/online.html>

### ***NKU Contact***

For more information, students should contact Kim McCoy, Assistant Director of Transfer Services, at [mccoyk8@nku.edu](mailto:mccoyk8@nku.edu).

### ***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 toward the major or minor. Students must complete a focus or minor as indicated on the pathway.

**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<br>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) | 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 CYS 285.

**SINCLAIR COLLEGE AAS IN COMPUTER INFORMATION SYSTEMS/NETWORK ENGINEERING TO  
NKU BS IN INFORMATION TECHNOLOGY CHECKLIST**

**Sinclair College**

**Category 1: Sinclair Requirements for the AAS in Computer Information Systems/Network Engineering**

| <b>Sinclair Course</b>  | <b>Course or Category</b>                                                                   | <b>Credits</b> | <b>NKU Course</b>                                 | <b>Completed</b> |
|-------------------------|---------------------------------------------------------------------------------------------|----------------|---------------------------------------------------|------------------|
| ACC 1100 or<br>ACC 1210 | Survey of Accounting or<br>Introduction to Financial Accounting                             | 3              | ACC 100T<br>ACC 200                               |                  |
| BIS 1120                | Introduction to Software Applications                                                       | 3              | BIS 101                                           |                  |
| CIS 1107                | Introduction to Operating Systems                                                           | 3              | CIS 1107 +<br>CIS 2731 =<br>CIT 130 +<br>CIT 200T |                  |
| CIS 1111                | Introduction to Problem Solving & Computer<br>Programming                                   | 3              | INF 110                                           |                  |
| CIS 1140                | Information Systems Analysis & Design                                                       | 3              | BIS 310                                           |                  |
| CIS 1411                | Cisco Network Fundamentals                                                                  | 3              | INF 284                                           |                  |
| CIS 2170 or<br>CIS 2178 | Computer Information Systems Internship or<br>Computer Information Systems Capstone         | 3              | CEP 300<br>CIT 200T                               |                  |
| CIS 2165                | Database Management                                                                         | 3              | INF 282                                           |                  |
| CIS 2416                | Cisco Routing Protocols & Concepts                                                          | 4              | CIT 247 +<br>CIT 200T                             |                  |
| CIS 2421                | Cisco Switching & Wireless Routing                                                          | 4              | CIT 200T                                          |                  |
| CIS 2427                | Cisco Accessing the Wide Area Network (WAN)                                                 | 4              | CIT 200T                                          |                  |
| CIS 2640                | Network Security                                                                            | 3              | CYS 200T                                          |                  |
| CIS 2731                | A+ Hardware & Software                                                                      | 4              | CIS 1107 +<br>CIS 2731 =<br>CIT 130 +<br>CIT 200T |                  |
| COM 2225                | Small Group Communication                                                                   | 3              | CMST 230                                          |                  |
| ECO 2160                | Principles of Macroeconomics                                                                | 3              | ECO 200                                           |                  |
| ENG 1101                | English Composition I                                                                       | 3              | ENG 101                                           |                  |
| MAN 2150                | Management & Organizational Behavior                                                        | 3              | MGT 205                                           |                  |
| MAT 1120 or<br>TBS XXX  | Business Mathematics or<br>Ohio Transfer 36: Mathematics<br>(choose MAT 1450 for NKU major) | 3              | STA 100G,<br>TBD XXX or<br>(STA 205)              |                  |
| SCC 1101                | First Year Experience                                                                       | 1              | UNV 101                                           |                  |
| TBS XXX                 | Ohio Transfer 36: Arts & Humanities                                                         | 3              | TBD XXX                                           |                  |
|                         | <b>Total Associate Degree Hours</b>                                                         | <b>61</b>      |                                                   |                  |

TBS XXX means to be selected by Sinclair College student.

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

## Northern Kentucky University

### Category 2: NKU Additional General Education Requirements

| NKU Course                                | Course                   | Credits   | Sinclair Course | Taken at Sinclair |
|-------------------------------------------|--------------------------|-----------|-----------------|-------------------|
| ENG 102                                   | Advanced College Writing | 3         | ENG 1201        |                   |
| TBS XXX                                   | Oral Communication       | 3         | COM 2211        |                   |
| TBS XXX                                   | Natural Science          | 4         |                 |                   |
| TBS XXX                                   | Cultural Pluralism       | 3         |                 |                   |
| TBS XXX                                   | Individual & Society     | 3         |                 |                   |
| TBS XXX                                   | Culture & Creativity     | 3         |                 |                   |
| TBS XXX                                   | Global Viewpoints        | 3         |                 |                   |
| <b>Subtotal General Education Courses</b> |                          | <b>22</b> |                 |                   |

### Category 3: NKU Major Requirements for the BS in Information Technology

| NKU Course         | Course                                                                                                                                                                                                                        | Credits | Sinclair Course                     | Taken at Sinclair        |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------|--------------------------|
| INF 100            | Orientation to College of Informatics                                                                                                                                                                                         | 1       | Waived for students with AAS degree | x                        |
| INF 120            | Elementary Programming                                                                                                                                                                                                        | 3       | CIS 1202                            |                          |
| INF 282            | Introduction to Databases                                                                                                                                                                                                     | 3       | CIS 2165                            | x                        |
| INF 284            | Introduction to Computer Networks                                                                                                                                                                                             | 3       | CIS 1130                            |                          |
| INF 286            | Introduction to Web Development                                                                                                                                                                                               | 3       | CIS 1350                            |                          |
| CIT 130            | Information Technology Fundamentals                                                                                                                                                                                           | 3       | CIS 1107 + CIS 2731                 | x                        |
| CIT 171            | Intro to Linux                                                                                                                                                                                                                | 1       | CIS 2550                            |                          |
| CIT 271            | Windows Administration                                                                                                                                                                                                        | 3       | CIS 1510 + CIS 2510                 |                          |
| CIT 371            | Linux System Administration                                                                                                                                                                                                   | 3       |                                     |                          |
| CIT 383            | Scripting I                                                                                                                                                                                                                   | 3       |                                     |                          |
| CYS 285            | Cybersecurity Fundamentals                                                                                                                                                                                                    | 3       | CIS 2670                            |                          |
| STA 205 or STA 250 | Statistical Methods or Probability and Statistics                                                                                                                                                                             | 3       | MAT 1450                            | Can be taken at Sinclair |
| PHI 310            | Information Ethics                                                                                                                                                                                                            | 3       |                                     |                          |
| ENG 347            | Technical Writing                                                                                                                                                                                                             | 3       |                                     |                          |
|                    | Select one track from following tracks:<br>Network and Administration Track<br>Cloud and System Administration Track<br>Cybersecurity Track<br>General Track<br>(Required courses are listed in Categories 5-8 tables below.) | 15-18   |                                     |                          |

| NKU Course | Course                                       | Credits      | Sinclair Course | Taken at Sinclair |
|------------|----------------------------------------------|--------------|-----------------|-------------------|
|            | <b>Total NKU Major Credit Hours</b>          | <b>56</b>    |                 |                   |
|            | <b>Less Major Credit Hours from Sinclair</b> | <b>7-13</b>  |                 |                   |
|            | <b>Subtotal Major Credit Hours at NKU</b>    | <b>43-49</b> |                 |                   |

#### Category 4: Additional Requirements at NKU

| NKU Course | Course                                                                                                                                                                                                                                 | Credits     | Sinclair Course | Taken at Sinclair |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|-------------------|
|            | <b>Subtotal Minor/Focus Credit Hours</b><br>Note: Any NKU focus or minor may be selected. Information Systems and Computer Science are common choices and require 9-15 additional credit hours beyond the courses taken for the major. | <b>9-24</b> |                 |                   |
|            | <b>Minimum Total Baccalaureate Degree Credit Hours</b>                                                                                                                                                                                 | <b>135</b>  |                 |                   |

Note: Depending on track, focus/minor, and courses chosen, total credit hours for the baccalaureate degree may be higher and students may need additional electives to meet the 45-hour upper level graduation requirement. Work with your NKU advisor to make sure you meet all graduation requirements.

#### Category 5: NKU Major Requirements for the Network and System Administration Track

| NKU Course | Course                                                                                          | Credits   | Sinclair Course | Taken at Sinclair |
|------------|-------------------------------------------------------------------------------------------------|-----------|-----------------|-------------------|
| CIT 247    | Networking Fundamentals                                                                         | 3         | CIS 2416        | x                 |
| CIT 438    | Cloud Computing                                                                                 | 3         |                 |                   |
| CIT 447    | Network Design/Troubleshooting                                                                  | 3         |                 |                   |
| CIT 470    | Advanced Network and System Administration                                                      | 3         |                 |                   |
| CYS 484    | Network Security                                                                                | 3         |                 |                   |
| TBS XXX    | Select one 300/400-level CIT course not included above. CSC 481 can count toward this elective. | 3         |                 |                   |
|            | <b>Additional Credit Hours for Track</b>                                                        | <b>15</b> |                 |                   |

#### Category 6: NKU Major Requirements for the Cloud and System Administration Track

| NKU Course | Course                                     | Credits | Sinclair Course | Taken at Sinclair |
|------------|--------------------------------------------|---------|-----------------|-------------------|
| CIT 436    | Web Server Administration                  | 3       |                 |                   |
| CIT 438    | Cloud Computing                            | 3       |                 |                   |
| CIT 470    | Advanced Network and System Administration | 3       |                 |                   |
| CIT 472    | Database Administration                    | 3       |                 |                   |

| NKU Course | Course                                                                                                                | Credits   | Sinclair Course | Taken at Sinclair |
|------------|-----------------------------------------------------------------------------------------------------------------------|-----------|-----------------|-------------------|
| TBS XXX    | Select six hours of CIT 300/400 level courses not listed above; CYS 439 and CSC 481 can count toward these electives. | 6         |                 |                   |
|            | <b>Additional Credit Hours for Track</b>                                                                              | <b>18</b> |                 |                   |

#### Category 7: NKU Major Requirements for the Cybersecurity Track

| NKU Course | Course                                                                                                                                  | Credits   | Sinclair Course | Taken at Sinclair |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|-------------------|
| CYS 330    | Introduction to Ethical Hacking                                                                                                         | 3         |                 |                   |
| CYS 385    | Cybersecurity Analysis I                                                                                                                | 3         |                 |                   |
| CYS 484    | Network Security                                                                                                                        | 3         |                 |                   |
| CYS 485    | Advanced Cybersecurity                                                                                                                  | 3         |                 |                   |
| TBS XXX    | Select two 300/400-level CIT or CYS courses not included above; BIS 382, CSC 481; CSC 482, and CSC 483 may count toward these electives | 6         |                 |                   |
|            | <b>Additional Credit Hours for Track</b>                                                                                                | <b>18</b> |                 |                   |

#### Category 8: NKU Major Requirements for the General Track

| NKU Course         | Course                                                                                                                                                                                        | Credits   | Sinclair Course | Taken at Sinclair |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|-------------------|
| CIT 436 or CIT 438 | Web Server Administration or Cloud Computing                                                                                                                                                  | 3         |                 |                   |
| CIT 470 or CIT 472 | Advanced Network and System Administration or Database Administration                                                                                                                         | 3         |                 |                   |
| CYS 330 or CYS 385 | Introduction to Ethical Hacking or Cybersecurity Analysis I                                                                                                                                   | 3         |                 |                   |
| TBS XXX            | Select 9 credit hours of 300/400 CIT or CYS coursework not taken above. CIT 247 and CSC 481 may count toward these electives. No more than 6 hours may be taken from CIT/CYS 392/399/492/499. | 9         |                 |                   |
|                    | <b>Additional Credit Hours for Track</b>                                                                                                                                                      | <b>18</b> |                 |                   |

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