



TRANSFER AGREEMENT

with

Ivy Tech Community College of Indiana

Business & Public Services Division



Fall 2017

College of Informatics

Computer Information Technology Agreement

ARTICULATION AGREEMENT

Between
Northern Kentucky University
and
Ivy Tech Community College Statewide

For Transfer of Ivy Tech Community College's Associate of Science in Cyber Security/Information Assurance, Associate of Science in Database Management and Administration, Associate of Science in Software Development, Associate of Science in Informatics and Associate of Applied Science in Network Infrastructure to Northern Kentucky University's Bachelor of Science in Computer Information Technology

Statement of Purpose

The purpose of this articulation is to provide a basis for a cooperative relationship between Northern Kentucky University and Ivy Tech Community College (ITCC) to benefit students who desire to complete a bachelor's degree. The intent is for ITCC students completing the associate degree to move seamlessly to the Bachelor of Science (B.S.) in Computer Information Technology degree program.

Transfer Agreement

Ivy Tech Community College graduates from the Associate of Science in Cyber Security/Information Assurance, Associate of Science in Database Management and Administration, Associate of Science in Software Development, Associate of Science in Informatics, and Associate of Applied Science in Network Infrastructure, from any Ivy Tech campus, may transfer and apply the credits from that completed degree to requirements for Northern Kentucky University Bachelor of Science in Computer Information Technology.

Addendum: Ivy Tech Community College A.S. in Cyber Security/Information Assurance to B.S. in Computer Information Technology Checklist; Ivy Tech Community College A.S. in Database Management and Administration to B.S. in Computer Information Technology Checklist; Ivy Tech Community College A.S. in Software Development to B.S. in Computer Information Technology Checklist; Ivy Tech Community College A.S. in Informatics to B.S. in Computer Information Technology Checklist

Additionally, under the terms of this agreement:

1. ITCC students are eligible for admission with junior standing to Northern Kentucky University provided they submit a completed application and have a minimum of 60 credits with a 2.0 or higher grade point average on a 4-point scale.
2. Students must earn a grade of C- or better in each course that counts as part of the Computer Information Technology major or minor regardless of the institution at which the course is taken.
3. Beginning in Fall 2107, ITCC students completing the Associate of Science degree before transferring to NKU will be certified in general education. Students who transfer to NKU before completing their Associate of Science degree will be required to complete NKU's general education curriculum and ITCC courses will be evaluated on a course-by-course basis.

4. The parties to this agreement are committed to an annual review of its details to adjust them for any relevant curricular changes at either institution. In the event of such changes, Northern Kentucky University will permit an ITCC student covered under this agreement to designate a catalog year (for purposes of applicable requirements) up to two years before the matriculation date at Northern Kentucky University.
5. Written notice of intention to terminate, modify, or withdraw from this Articulation Agreement will be submitted by the academic head of either institution at least one academic semester prior to the proposed date of termination/withdrawal. Should a decision be made to modify or dissolve this agreement, students who are already attending Northern Kentucky University at the time will be permitted to continue as long as their academic performance remains in good standing.
6. Under this agreement, ITCC students will be encouraged to complete their associate degree before transferring to Northern Kentucky University. Should an ITCC student transfer to Northern Kentucky University prior to completion of an associate degree, ITCC shall provide the opportunity for students to subsequently complete the associate degree in absentia using Northern Kentucky University course credit. In this interest, all course work completed at Northern Kentucky University will be accepted and applied to the associate degree requirements at ITCC consistent with the criteria used for native ITCC students. The same course may also apply toward baccalaureate degree requirements at Northern Kentucky University. The student will, however, need to complete NKU's general education requirements if the student transfers to NKU prior to completing an Associate of Science degree.
7. This agreement becomes effective when all signatures are affixed and remains in effect for two years from the date below. After two years, the agreement may be renewed with or without modification by mutual agreement of both Ivy Tech Community College and Northern Kentucky University.

Agreed to _____ (date)

Ivy Tech Community College

Steven Tincher
Interim Provost and Senior Vice President

Dr. Russell Baker
Vice President of Academic Affairs
and University Transfer Division

Northern Kentucky University

Dr. Maureen Doyle
Interim Chair
Computer Science


Dr. Kevin Kirby
Dean
College of Informatics

Ms. Sue Ott Rowlands
Provost and Executive Vice President
Academic Affairs

IVY TECH COMMUNITY COLLEGE A.S. IN CYBER SECURITY/INFORMATION ASSURANCE TO NKU B.S. IN COMPUTER INFORMATION TECHNOLOGY CHECKLIST


Completion of the following curriculum will satisfy the requirements for the Associate of Science in Cyber Security/Information Assurance degree at Ivy Tech Community College and leads to the Bachelor of Science in Computer Information Technology at Northern Kentucky University.

Ivy Tech Community College of Indiana

Category I: Transfer General Education Core (TGEC) Competencies				
ITCC Course	Course or Category	Credits	NKU Course	
ENGL 111	Written Communication	3	ENG 101	
COMM 101 or COMM 102	Speaking and Listening	3	CMST 101 or CMST 220	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Quantitative Reasoning	3	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Social and Behavioral Ways of Knowing	3-4	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3-4	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
Subtotal General Education Core		30-35		

TBS=to be selected by Ivy Tech student

TBD=to be determined by NKU based on course selected at Ivy Tech

Category II: Degree Requirements for A.S. in Cyber Security/Information Assurance and NKU Recommendations				
ITCC Course	Course or Category	Credits	NKU Course	
IVYT 111	Student Success in University Transfer	1	UNV 100T	
INFM 109 and CSIA 105	Informatics Fundamentals and Introduction to Cyber Security/Information Assurance	6	CIT 130 and CIT 100T	
ITSP 135	Hardware/Software Support	4	CIT 100T	
NETI 105 and CSIA 210	Network Fundamentals and Network Protocol Analysis	6	CIT 247 and CIT 200T	
SDEV 120	Computer Logic	3	INF 100T	
CPIN 279	Computing and Informatics Exploration and Evaluation	1	INF 200T	
SDEV 153	Transfer Cluster Elective – Web Site Development	3	INF 286	

ENGL 112	Transfer Cluster Elective – Exposition and Persuasion	3	ENG 291	
	Transfer Cluster Elective	3		
Total Associate Degree Credit Hours		60-65		

Northern Kentucky University

Students must complete the following for a B.S. in Computer Information Technology: the core requirements, a minor or area of focus, and one of the four tracks.

Students with an associate degree can earn course credit by meeting the following criteria:

For CIT 247 credit, one of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Entry Level (CCENT) certification

For CIT 447 credit, both of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Network Associate Routing and Switching (CCNA R&S) certification

Category III: Core Requirements for the B.S. in Computer Information Technology				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
INF 120	Elementary Programming	3	SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	
INF 282	Introduction to Databases	3	DBMS 110 and DBMS 210	
INF 286	Introduction to Web Development	3	SDEV 153	x
CIT 130	Information Technology Fundamentals	3	INFM 109 and CSIA 105	x
CIT 247	Networking Fundamentals	3	NETI 105 and CSIA 210*	x
CIT 271	Windows Administration	3		
CIT 285	Cybersecurity Fundamentals	3		
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
CIT 480	Securing Computer Systems	3		
STA 205 or STA 212 or STA 250	Statistics	3		
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3	ENGL 211	
	Minor or Area of Focus	15-24		
Subtotal Core Courses Credit Hours		44-54		

*An alternative equivalency is NETI 105 and NETI 115 or CCENT certification.

Students must choose one of the following tracks: Network and System Administration Track, Web and Database Administration Track, Cybersecurity Track, or Non-Specialist Track

Category IV: Requirements for the Network and System Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 447	Network Design/Troubleshooting	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification	
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
Select three 300/400 level CIT courses	CIT Electives	9		
Additional Track Credit Hours		18		
Total Hours at 300 Level or Above		45		
Total Bachelor Degree Credit Hours**		123-137		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Cyber Security/Information Assurance at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Web and Database Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3		
CSC 301	Web Programming	3		
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
CSC 456 or One 300/400 CIT	Advanced Web Application Development or CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Additional Track Credits		18		
Total Hours at 300 Level or Above		45		

Total Bachelor Degree Credit Hours**	123-137		
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**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Cyber Security/Information Assurance at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Cybersecurity Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
Select one 300/400 level CIT course or BIS 382 or CSC 482 or CSC 483	Track Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select two 300/400 level CIT courses or BIS 382 or CSC 482 or CSC 483	Track Electives	6		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		123-137		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Cyber Security/Information Assurance at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Non-Specialist Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CSC 483	Object-Oriented Programming II or Scripting II	3		
CIT 436 or CIT 438 or CIT 472	Web Server Administration or Cloud Computing or Database Administration	3		
CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		


Select one 300/400 level CIT course	CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select one 300/400 level CIT course	CIT Elective	3		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		123-137		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Cyber Security/Information Assurance at ITCC and an Information Systems Minor at NKU.

IVY TECH COMMUNITY COLLEGE A.S. IN DATABASE MANAGEMENT AND ADMINISTRATION TO NKU B.S. IN COMPUTER INFORMATION TECHNOLOGY CHECKLIST


Completion of the following curriculum will satisfy the requirements for the Associate of Science in Database Management and Administration degree at Ivy Tech Community College and leads to the Bachelor of Science in Computer Information Technology at Northern Kentucky University.

Ivy Tech Community College of Indiana

Category I: Transfer General Education Core (TGEC) Competencies				
ITCC Course	Course or Category	Credits	NKU Course	
ENGL 111	Written Communication	3	ENG 101	
COMM 101 or COMM 102	Speaking and Listening	3	CMST 101 or CMST 220	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Social and Behavioral Ways of Knowing	3-4	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3-4	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
Subtotal General Education Core		30-38		

TBS=to be selected by Ivy Tech student

TBD=to be determined by NKU based on course selected at Ivy Tech

Category II: Degree Requirements for A.S. in Database Management and Administration and NKU Recommendations				
ITCC Course	Course or Category	Credits	NKU Course	
IVYT 111	Student Success in University Transfer	1	UNV 100T	
DBMS 110 and DBMS 210	Database Design and Management and Database Design and Development	6	INF 282 and INF 200T	
INFM 109	Informatics Fundamentals	3	BIS 101	
ITSP 135	Hardware/Software Support	4	CIT 100T	
NETI 100	Network Communications	3	INF 200T	
SDEV 120	Computer Logic	3	INF 100T	
CPIN 279	Computing and Informatics Exploration and Evaluation	1	INF 200T	
ENGL 112	Transfer Cluster Elective – Exposition and Persuasion	3	ENG 291	
SDEV 153	Transfer Cluster Elective – Web Site Development	3	INF 286	
	Transfer Cluster Elective	3		

Total Associate Degree Credit Hours	60-68		
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Northern Kentucky University

Students must complete the following for a B.S. in Computer Information Technology: the core requirements, a minor or area of focus, and one of the four tracks.

Students with an associate degree can earn course credit by meeting the following criteria:

For CIT 247 credit, one of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Entry Level (CCENT) certification

For CIT 447 credit, both of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Network Associate Routing and Switching (CCNA R&S) certification

Category III: Core Requirements for the B.S. in Computer Information Technology				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
INF 120	Elementary Programming	3	SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	
INF 282	Introduction to Databases	3	DBMS 110 and DBMS 210	x
INF 286	Introduction to Web Development	3	SDEV 153	x
CIT 130	Information Technology Fundamentals	3	INFM 109 and CSIA 105	
CIT 247	Networking Fundamentals	3	NETI 105 and CSIA 210*	
CIT 271	Windows Administration	3		
CIT 285	Cybersecurity Fundamentals	3		
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
CIT 480	Securing Computer Systems	3		
STA 205 or STA 212 or STA 250	Statistics	3		
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3	ENGL 211	
	Minor or Area of Focus	15-24		
Subtotal Core Courses Credit Hours		48-57		

*An alternative equivalency is NETI 105 and NETI 115 or CCENT certification.

Students must choose one of the following tracks: Network and System Administration Track, Web and Database Administration Track, Cybersecurity Track, or Non-Specialist Track

Category IV: Requirements for the Network and System Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 447	Network Design/Troubleshooting	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification	
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
Select three 300/400 level CIT courses	CIT Electives	9		
Additional Track Credit Hours		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Database Management and Administration at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Web and Database Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3		
CSC 301	Web Programming	3		
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
CSC 456 or One 300/400 CIT	Advanced Web Application Development or CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	

Additional Track Credits	18		
Total Hours at 300 Levels or Above	45		
Total Bachelor Degree Credit Hours**	123-140		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Database Management and Administration at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Cybersecurity Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
Select one 300/400 level CIT course or BIS 382 or CSC 482 or CSC 483	Track Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select two 300/400 level CIT courses or BIS 382 or CSC 482 or CSC 483	Track Electives	6		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Database Management and Administration at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Non-Specialist Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CSC 483	Object-Oriented Programming II or Scripting II	3		
CIT 436 or CIT 438 or CIT 472	Web Server Administration or Cloud Computing or Database Administration	3		

CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		
Select one 300/400 level CIT course	CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select one 300/400 level CIT course	CIT Elective	3		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Database Management and Administration at ITCC and an Information Systems Minor at NKU.

IVY TECH COMMUNITY COLLEGE A.S. IN SOFTWARE DEVELOPMENT TO NKU B.S. IN COMPUTER INFORMATION TECHNOLOGY CHECKLIST

Completion of the following curriculum will satisfy the requirements for the Associate of Science in Software Development degree at Ivy Tech Community College and leads to the Bachelor of Science in Computer Information Technology at Northern Kentucky University.

Ivy Tech Community College of Indiana

Category I: Transfer General Education Core (TGEC) Competencies				
ITCC Course	Course or Category	Credits	NKU Course	✓
ENGL 111	Written Communication	3	ENG 101	
COMM 101 or COMM 102	Speaking and Listening	3	CMST 101 or CMST 220	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Social and Behavioral Ways of Knowing	3-4	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3-4	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
Subtotal General Education Core		30-38		

TBS=to be selected by Ivy Tech student

TBD=to be determined by NKU based on course selected at Ivy Tech

Category II: Degree Requirements for A.S. in Software Development and NKU Recommendations				
ITCC Course	Course or Category	Credits	NKU Course	✓
IVYT 111	Student Success in University Transfer	1	UNV 100T	
INFM 109	Informatics Fundamentals and	3	BIS 101	
DBMS 110	Database Design and Management	3		
ITSP 135	Hardware/Software Support	4		
SDEV 120	Computer Logic	3	INF 100T	
SDEV 140	Introduction to Software Development	3		
SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	Software Development using Java or Software Development using Visual Basic or Software Development using Python or Software Development using C++ or Software Development using C# or	3	INF 120	
CPIN 279	Computing and Informatics Exploration and Evaluation	1	INF 200T	
ENGL 112	Transfer Cluster Elective – Exposition and Persuasion	3	ENG 291	

DBMS 210	Transfer Cluster Elective – Database Design and Development	3	DBMS 110 and DBMS 210 equates to INF 282 and INF 200T	
SDEV 153	Transfer Cluster Elective – Web Site Development	3	INF 286	
Total Associate Degree Credit Hours		60-68		

Northern Kentucky University

Students must complete the following for a B.S. in Computer Information Technology: the core requirements, a minor or area of focus, and one of the four tracks.

Students with an associate degree can earn course credit by meeting the following criteria:

For CIT 247 credit, one of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Entry Level (CCENT) certification

For CIT 447 credit, both of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Network Associate Routing and Switching (CCNA R&S) certification

Category III: Core Requirements for the B.S. in Computer Information Technology				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
INF 120	Elementary Programming	3	SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	x
INF 282	Introduction to Databases	3	DBMS 110 and DBMS 210	x
INF 286	Introduction to Web Development	3	SDEV 153	x
CIT 130	Information Technology Fundamentals	3	INFM 109 and CSIA 105	
CIT 247	Networking Fundamentals	3	NETI 105 and CSIA 210*	
CIT 271	Windows Administration	3		
CIT 285	Cybersecurity Fundamentals	3		
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
CIT 480	Securing Computer Systems	3		
STA 205 or STA 212 or STA 250	Statistics	3		
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3	ENGL 211	

	Minor or Area of Focus	15-24		
Subtotal Core Courses Credit Hours		45-54		

*An alternative equivalency is NETI 105 and NETI 115 or CCENT certification.

Students must choose one of the following tracks: Network and System Administration Track, Web and Database Administration Track, Cybersecurity Track, or Non-Specialist Track

Category IV: Requirements for the Network and System Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 447	Network Design/Troubleshooting	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification	
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
Select three 300/400 level CIT courses	CIT Electives	9		
Additional Track Credit Hours		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		123-140		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Web and Database Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3		
CSC 301	Web Programming	3		
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
CSC 456 or One 300/400 CIT	Advanced Web Application Development or CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to	

			CIT 447 and satisfies elective requirement	
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		123-134		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Cybersecurity Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
Select one 300/400 level CIT course or BIS 382 or CSC 482 or CSC 483	Track Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select two 300/400 level CIT courses or BIS 382 or CSC 482 or CSC 483	Track Electives	6		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		123-140		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Non-Specialist Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CSC 483	Object-Oriented Programming II or Scripting II	3		
CIT 436 or CIT 438 or	Web Server Administration or Cloud Computing or	3		

CIT 472	Database Administration			
CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		
Select one 300/400 level CIT course	CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select one 300/400 level CIT course	CIT Elective	3		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		123-140		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Software Development at ITCC and an Information Systems Minor at NKU.

IVY TECH COMMUNITY COLLEGE A.S. IN INFORMATICS TO NKU B.S. IN COMPUTER INFORMATION TECHNOLOGY CHECKLIST

Completion of the following curriculum will satisfy the requirements for the Associate of Science in Informatics degree at Ivy Tech Community College and leads to the Bachelor of Science in Computer Information Technology at Northern Kentucky University.

Ivy Tech Community College of Indiana

Category I: Transfer General Education Core (TGEC) Competencies				
ITCC Course	Course or Category	Credits	NKU Course	✓
ENGL 111	Written Communication	3	ENG 101	
COMM 101 or COMM 102	Speaking and Listening	3	CMST 101 or CMST 220	
MATH 136	College Algebra or Higher	3	TBD XXX	
TBS XXX	Quantitative Reasoning	3-4	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Scientific Ways of Knowing	3-5	TBD XXX	
TBS XXX	Social and Behavioral Ways of Knowing	3-4	TBD XXX	
TBS XXX	Humanistic and Artistic Ways of Knowing	3-4	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
TBS XXX	TGEC Elective	3	TBD XXX	
Subtotal General Education Core		30-37		

TBS=to be selected by Ivy Tech student

TBD=to be determined by NKU based on course selected at Ivy Tech

Category II: Degree Requirements for A.S. in Informatics and NKU Recommendations				
ITCC Course	Course or Category	Credits	NKU Course	✓
IVYT 111	Student Success in University Transfer	1	UNV 100T	
DBMS 110	Database Design and Management	3		
INFM 109 and CSIA 105	Informatics Fundamentals and Introduction to Cyber Security/Information Assurance	6	CIT 130 and CIT 100T	
ITSP 135	Hardware/Software Support	4	CIT 100T	
NETI 105	Network Fundamentals	3	INF 284	
SDEV 120	Computer Logic	3	INF 100T	
SDEV 140	Introduction to Software Development	3		
SDEV 153	Web Site Development	3	INF 286	
CPIN 239	Systems Analysis and Design	3		
CPIN 279	Computing and Informatics Exploration and Evaluation	1	INF 200T	
Total Associate Degree Credit Hours		60-67		

Northern Kentucky University

Students must complete the following for a B.S. in Computer Information Technology: the core requirements, a minor or area of focus, and one of the four tracks.

Students with an associate degree can earn course credit by meeting the following criteria:

For CIT 247 credit, one of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Entry Level (CCENT) certification

For CIT 447 credit, both of the following criteria must be met.

- C- or better in NETI 105 and (CSIA 210 or NETI 115)
- Cisco Certified Network Associate Routing and Switching (CCNA R&S) certification

Category III: Core Requirements for the B.S. in Computer Information Technology				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
INF 120	Elementary Programming	3	SDEV 200 or SDEV 210 or SDEV 220 or SDEV 230 or SDEV 240	
INF 282	Introduction to Databases	3	DBMS 110 and DBMS 210	
INF 286	Introduction to Web Development	3	SDEV 153	x
CIT 130	Information Technology Fundamentals	3	INFM 109 and CSIA 105	x
CIT 247	Networking Fundamentals	3	NETI 105 and CSIA 210*	
CIT 271	Windows Administration	3		
CIT 285	Cybersecurity Fundamentals	3		
CIT 371	Unix Systems	3		
CIT 383	Scripting I	3		
CIT 480	Securing Computer Systems	3		
STA 205 or STA 212 or STA 250	Statistics	3		
PHI 310	Information Ethics	3		
ENG 347	Technical Writing	3	ENGL 211	
	Minor or Area of Focus	15-24		
Subtotal Core Courses Credit Hours		48-57		

*An alternative equivalency is NETI 105 and NETI 115 or CCENT certification.

Students must choose one of the following tracks: Network and System Administration Track, Web and Database Administration Track, Cybersecurity Track, or Non-Specialist Track

Category IV: Requirements for the Network and System Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 447	Network Design/Troubleshooting	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification	
CIT 470	Advanced Network and System Administration	3		
CIT 484	Network Security	3		
Select three 300/400 level CIT courses	CIT Electives	9		
Additional Track Credit Hours		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Informatics at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Web and Database Administration Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CIT 483	Object-Oriented Programming II or Scripting II	3		
CSC 301	Web Programming	3		
CIT 436	Web Server Administration	3		
CIT 472	Database Administration	3		
CSC 456 or One 300/400 CIT	Advanced Web Application Development or CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. Informatics at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Cybersecurity Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CIT 430	Computer Forensics	3		
CIT 484	Network Security	3		
CIT 485	Advanced Cybersecurity	3		
Select one 300/400 level CIT course or BIS 382 or CSC 482 or CSC 483	Track Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select two 300/400 level CIT courses or BIS 382 or CSC 482 or CSC 483	Track Electives	6		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Informatics at ITCC and an Information Systems Minor at NKU.

Category IV: Requirements for the Non-Specialist Track				
NKU Course	Course	Credits	ITCC Course	Taken at ITCC
CSC 260	Object-Oriented Programming I	3		
CSC 360 or CSC 483	Object-Oriented Programming II or Scripting II	3		
CIT 436 or CIT 438 or CIT 472	Web Server Administration or Cloud Computing or Database Administration	3		
CIT 470 or CIT 485	Advanced Network and System Administration or Advanced Cybersecurity	3		

Select one 300/400 level CIT course	CIT Elective	3	C- or better in NETI 105 and (CSIA 210 or NETI 115), A.S., and CCNA R&S certification equates to CIT 447 and satisfies elective requirement	
Select one 300/400 level CIT course	CIT Elective	3		
Additional Track Credits		18		
Total Hours at 300 Levels or Above		45		
Total Bachelor Degree Credit Hours**		126-143		

**Credits hours for the bachelor degree can vary based on the courses taken at ITCC and the minor selected at NKU. The lowest total credit hours for this track is based on the student completing an A.S. in Informatics at ITCC and an Information Systems Minor at NKU.