

# UTICA



# COLLEGE

## TRANSFER ARTICULATION AGREEMENT

Utica College  
Cybersecurity (BS)

and

Fulton Montgomery Community College  
Computer Networking & Cybersecurity (AAS)

October 30, 2018

Utica College and Fulton Montgomery Community College, in recognition of a mutual respect for the integrity of parallel academic programs and in an effort to better serve students intending to pursue the completion of a bachelor's degree, hereby enter into an agreement of articulated degree programs.

**OBJECTIVES:**

- To encourage the transfer of qualified students from Fulton Montgomery Community College (FMCC) to Utica College (UC).
- To award academic credit for courses completed at FMCC, that meet the terms of the Associate Degree programs for application toward the requirements a Bachelor of Arts or a Bachelor of Science at UC.
- To provide effective and concise guidelines for students seeking to transfer to UC. Students will have accurate and clear information regarding the transfer of their coursework and credits toward the Bachelor's degree at UC.

**TERMS OF THE TRANSFER ARTICULATION AGREEMENT:**

- UC guarantees the acceptance of students who completed an Associate Degree at FMCC with a cumulative GPA of 2.5 or better to UC. Transfer students who do not meet these criteria will be evaluated individually.
- This agreement assumes the completion of the Associate Degree. UC requires that the last 30 credit hours granted toward the Bachelor degree must be earned in residence, with matriculated status. Additionally, the Bachelor of Arts degree requires that a *minimum of 90 credits must be in the liberal arts* while the Bachelor of Science requires a *minimum of 60 credits must be in the liberal arts*.
- FMCC transfer Students will be subject to all general education requirements of UC as set forth in the UC catalog:
  - Transfer students with a completed Associates Degree will be exempt from Components I & II of UC's Core Requirements.
  - Students who transfer 30 credits of liberal arts and sciences (with at least 2 courses in each of UC's three categories of Component II Core—including one lab science course) will be exempt from Component II Core.
  - Transfer Students who enter UC with Components I & II complete will be required to complete 3 credits of Component III: Integrated Writing.
- This document is based upon the evaluation of course descriptions presented to UC. Courses will transfer to UC provided a grade of "C" or better has been earned. Credit will be granted where the coursework is comparable to that offered at UC or as general elective and/or liberal arts credit.
- This Agreement shall remain in effect for a period of two years from the date listed below, with the provision that the terms specified herein will continue to apply to the students admitted from FMCC within one year of the expiration of the agreement. Each institution agrees to provide timely notice to the other in the event of any modification to the curriculum that might affect the compatibility for admission and transfer of coursework. This agreement may be subject to change, without notice, if curriculum requirements change at either institution. Students admitted to FMCC prior to such notification shall be admitted to UC on the basis of this agreement.

**BENEFITS/ADVANTAGES:**

- FMCC transfer students are eligible for scholarship and financial aid in all ways the same as continuing Utica College students.
- Utica College will provide housing in campus residence halls within the guidelines and practices governing availability of housing for continuing students.
- FMCC transfer students are eligible to participate in internships, externships, co-ops, field placements and study abroad opportunities open to continuing Utica College students.

Approved on (date) 11/27

**SIGNATURES**

**Utica College**

**Fulton Montgomery Community College**



Laura M. Casamento, Ed.D.  
President



Diana Putnam  
Dean of Academic Affairs



Craig P. Dewan, M.S.  
Registrar



Greg Truckenmiller  
Provost and Vice President of Academic Affairs

# Computer Networking & Cybersecurity (A.S.)

The Computer Networking & Cybersecurity A.S. program combines information systems, liberal arts, and criminal justice coursework to prepare students for transfer to bachelor's degree programs in Network Forensics, Information Assurance, Cybercrime Investigation, and related programs.

According to the United States Department of Labor, Bureau of Labor Statistics, employment of information security analysts is projected to grow more than 20 percent over the next decade, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks.

## Program Learning Outcomes

Students will be able to:

1. Configure and install end-user and server hardware and operating systems.
2. Identify system vulnerabilities and be able to assess cyber-related risks.
3. Analyze and utilize appropriate tools to protect network infrastructure and data.
4. Develop and implement proactive procedures and scripts to manage networked computers, servers and data.

## First Year

### 1st Semester

Utica College Equivalency

ENG 103	English I	3	ENG 101
CIS 110	Spreadsheets & Database for Professionals	3	CSC 117
CIS 114	Linux Operating System	3	CYB 205
CIS 240	Hardware Concepts	3	CYB 107
	General Education Elective <sup>1</sup>	3	Elective

Total Credit Hours: 15

### 2nd Semester

Utica College Equivalency

ENG 104	English II	3	ENG 102
CIS 241	Networking Concepts	3	CSC 323
PSY 101	Introduction to Psychology	3	PSY 101
MAT 125	Introduction to Statistics	3	MAT 112
	General Education Elective <sup>1</sup>	3	Elective
	General Education Elective <sup>1</sup>	3	Elective

Total Credit Hours: 18

## Second Year

### 1st Semester

Utica College Equivalency

CIS 146	Introduction to Cybersecurity	3	CYB 333
CIS 116	Computer Science I	3	CSC 101
CRJ 101	Introduction to Criminal Justice	3	CRJ 103
	Science Elective	3-4	Science Elective
SOC 101	Introduction to Sociology	3	SOC 151

Total Credit Hours: 15-16

### 2nd Semester

Utica College Equivalency

CIS 246	Cybersecurity Administration	3	CSC 362
CIS 250	Project Management	3	CSC 2FE
PSY 270	Forensic Psychology	3	PSY 365
CIS 160	Database Design & Programming	3	CSC 343
	General Education Elective <sup>1</sup>	3	Elective

Total Credit Hours: 15

Total Credit Hours: 63-64      **Max 60 Credits Transferred to Utica College**

Minimum of 63 credits are required to complete this program, which must include 30 credits of General Education. **NOTE: All A.A. and A.S. degree programs require courses that meet 7 of the 10 General Education competencies and a minimum of General Education coursework.**

<sup>1</sup>Elective should be used to meet a SUNY General Education requirement. Consult transfer institution to assist in selecting appropriate transfer courses.

Student ID: \_\_\_\_\_  
 Student Name: \_\_\_\_\_  
 Adviser Name: \_\_\_\_\_

2018 Undergraduate Catalog 1.2 (SUMMER - FALL)  
 Program: Cybersecurity (B.S.) - Hegis Code 2105  
 Minimum Credits Required: \_\_\_\_\_

## Cybersecurity (B.S.) - Hegis Code 2105

*(Bachelor of Science Degree)*

The assurance of information during transmission or while in storage and the security of critical information infrastructures are a major responsibility of government and the private sector. Securing computers and computer networks, and conducting investigations of cybercrimes and forensic analysis of digital devices are principal methods of securing cyberspace. Through a multidisciplinary approach integrating criminology, criminal justice, economic crime, and computer science, students will be prepared for entry-level positions either in cybercrime investigation and computer forensics or the security of information stored in or transmitted by computers and computer networks.

Utica College offers an on-ground undergraduate program in Cybersecurity; there is also an undergraduate online program for transfer students. The online BS in Cybersecurity degree is a completion program, which means that students must have an Associate's degree from an accredited institution prior to enrolling in the program. Students transferring into this program without an Associate's degree, but who have at least 57 transferable credits from a four-year institution may be considered. Additionally, students who show academic promise and don't meet the prior 2 requirements may also be considered. However, all students must meet the New York State Education Department's mandated liberal arts requirements. A success coach will create an academic plan for students to ensure all core, liberal arts, and graduation requirements are satisfied. Please see Utica's Academic Requirements for more information on Utica's Core and liberal arts requirements for transfer students.

There is also an online master's program in Cybersecurity. For more information on the master's program, consult the UC graduate catalog.

### Learning Objectives

*A student who completes the undergraduate major in Cybersecurity will demonstrate the following either orally or in writing:*

Identify the main stages of the criminal justice process and the agencies responsible for administering justice.

Classify the principles of Cybersecurity.

Demonstrate critical thinking, research and writing skills related to cybersecurity.

Discuss technical, legal, ethical, social, and cultural aspects of cybersecurity.

Classify the principles of cybersecurity.

Investigate network-based crimes and intrusions.

The faculty has identified several advising specializations, groups of courses within the elective offerings that provide students with a focused path of study. Elective specializations are not formal parts of the curriculum but options within the elective section of the program. Students do not have to focus on a specialization but can with the consent of their advisor, simply elect to take courses that meet their needs or interests. The specializations identified by the faculty are:

Cybercrime and Fraud Investigation

Cyber Operations

Information Assurance

Network Forensics and Intrusion Investigation

### Special Requirements

Students in Cybersecurity are required to achieve a cumulative grade point average of at least 2.5 (on a 4.0 scale) across major, major-related, major elective, and major concentration courses by the first semester of their junior year and to maintain that average thereafter.

### Academic Requirements

See Core section of this catalog.

### Core: 34-55 Credit Hours

### Major Course Requirements

Course Name	FMCC Course	Credits	Grade
CRJ 101 - Seminar in Justice Studies (1)			
CRJ 103 - Introduction to Criminal Justice (3)	CRJ 101	3	
CYB 333 - Information Security (3)	CIS 146	3	
CYB 362 - Information System Threats, Attacks, and Defense (3)	CIS 246	3	
CYB 107 - Computer Hardware and Peripherals (3)	CIS 240	3	
<i>or</i>			
CYB 228 - Cyber Technology for Criminal Justice (3)			
CYB 205 - Software Foundations for Cybersecurity (3)	CIS 114	3	
<i>or</i>			
CSC 207 - Linux for Security and Forensics (3)			

CRJ 335 - Cybercrime Law and Investigations (3)			
<i>or</i>			
GOV 341 - Jurisprudence of the Criminal Law (3)			
<b>Professional Development</b>			
<b>Course Name</b>	<b>FMCC Course</b>	<b>Credits</b>	<b>Grade</b>
CRJ 461 - Proseminar in Justice Studies (3)			
CRJ 470 - Criminal Justice - Internship (6 to 15) (6 credits only)			
<i>or</i>			
CRJ 475 - Senior Project (3 to 6) (3 credits only)			
<b>25-28 Credit Hours</b>			
<b>Note:</b>			
*Only available to online students enrolled in the major or students with appropriate professional criminal justice work experience, with permission from the director of the program.			
<b>Major-Related Course Requirements</b>			
<b>Course Name</b>	<b>FMCC Course</b>	<b>Credits</b>	<b>Grade</b>
PHI 107 - Ethics (3)	PHI 258**	3	
<i>or</i>			
PHI 108 - Professional Ethics (3)	HLT 120*** or SOC 225***	3	
SOC 274 - Criminology (3)	SOC 209**	3	
SOC 376 - Criminological Research Methods (3)			
MAT 112 - Basic Statistics (3)	MAT 125	3	
<i>or</i>			
PSY 211 - Statistics in the Behavioral Sciences (3)			
<i>or</i>			
SOC 211 - Statistics in the Behavioral Sciences (3)	SOC 125***	3	
<i>or</i>			
ECN 241 - Statistics (3)			
MAT 147 - Mathematics for Cyber Security (3)			
<b>15 Credit Hours</b>			
<b>Major Specializations</b>			
<b>Cybercrime and Fraud Investigation</b>			
<b>Course Name</b>	<b>FMCC Course</b>	<b>Credits</b>	<b>Grade</b>
CRJ 347 - Fraud Prevention and Detection Technologies (3)			
CRJ 354 - Payment Systems and Fraud (3)			
CYB 355 - Cybercrime Investigations and Forensics I (3)			
CYB 356 - Cybercrime Investigations and Forensics II (3)			
CYB 455 - Cybercrime Investigations and Forensics III (3)			
CRJ 232 - Economic Crime Theory (3)			
<i>or</i>			
CRJ 321 - White-collar Criminology (3)			
CYB 338 - Applied Cryptography (3)			
<i>or</i>			
CYB 348 - Information Assurance Risk and Compliance (3)			



<b>Cyber Operations</b>			
Course Name	FMCC Course	Credits	Grade
CSC 101 - Computer Science I (0,3)	CIS 116 or CIS 120	3	
CSC 316 - Object-Oriented Programming (3)	CIS 131**	3	
CYB 338 - Applied Cryptography (3)			
CYB 339 - Cyber Operations Tools (3)			
CYB 438 - System Vulnerability Assessment (3)			
CYB 439 - Introduction to Malware Analysis (3)			
CSC 323 - Introduction to Networks (3)	CIS 241	3	
<i>or</i>			
CYB 337 - Computer Network Investigations (3)			
<b>Information Assurance</b>			
Course Name	FMCC Course	Credits	Grade
CSC 101 - Computer Science I (0,3)	CIS 116 or CIS 120	3	
CSC 201 - Discrete Mathematics (4)	MAT 173**	3	
CSC 225 - Introduction to the UNIX Operating System (0,3)			
CSC 316 - Object-Oriented Programming (3)	CIS 131**	3	
CYB 348 - Information Assurance Risk and Compliance (3)			
CYB 438 - System Vulnerability Assessment (3)			
CSC 323 - Introduction to Networks (3)	CIS 241	3	
<i>or</i>			
CYB 337 - Computer Network Investigations (3)			
<b>Network Forensics and Intrusion Investigation</b>			
Course Name	FMCC Course	Credits	Grade
CSC 101 - Computer Science I (0,3)	CIS 116 or CIS 120	3	
CYB 337 - Computer Network Investigations (3)			
CYB 355 - Cybercrime Investigations and Forensics I (3)			
CYB 356 - Cybercrime Investigations and Forensics II (3)			
CYB 438 - System Vulnerability Assessment (3)			
CYB 455 - Cybercrime Investigations and Forensics III (3)			
CYB 457 - Network Forensics (3)			
<b>Electives</b>			
The student must complete sufficient elective courses to earn at least the minimum credit hours required for this degree, and at least 60 credit hours of the 120 required must be in the liberal arts and sciences.			
<b>Program Credits</b>			
Core	34-55 Credits		
Major Course Requirements	25-28 Credits		
Major Related Course Requirements	15 Credits		
Specialization	21 Credits		
College Electives	1-25 Credits		
<b>Total Credit Hours Required For Degree</b>	<b>120 Credits</b>		
<b>Notes:</b>			

\*\*These classes indicate additional equivalent courses that may be transferred that are not expressly part of the Associate's Curriculum. Some classes taken, that are not listed here, may also be accepted. They may be transferred in place of other credits taken in the Associate's program, up to a total of 60 credits.