Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

1. Purpose of Articulation Agreement

This articulation agreement establishes a cooperative relationship between the University of Wisconsin-Whitewater (UW-W) and Waukesha County Technical College (WCTC), effective for students starting the Bachelor of Science, Cybersecurity-Cyber Operations Emphasis program, in or after the spring of 2022, which will assist both schools to better serve the educational needs of transfer students.

This Agreement and any amendments and supplements, shall be interpreted pursuant to the guidelines set forth in the University of Wisconsin System Administrative Policy 140, Guidelines for Articulation Agreements between UW System Institutions and WTCS Districts as well as Administrative Policy 135 Undergraduate Transfer Policy. Both institutions agree to maintain accreditation by the Higher Learning Commission and any other accreditation currently in existence pertaining to degree programs articulated via the transfer agreement.

Students transferring under the guidelines of this articulation agreement must:

1.1. successfully complete the Associate of Applied Science-Information Technology degree program in one of the following areas: Front End Web Development, Cybersecurity Specialist, Data Specialist, Network Specialist, Web and Software Developer or Computer Support Specialist

1.2. earn a cumulative GPA of a 2.0 (on a 4.0 scale), including coursework from other institutions (if appropriate), and according to UW-W repeat policy
https://www.uww.edu/registrar/policies#repeats

1.3. have applied to and are successfully admitted into UW-W (*all UW-W application deadlines apply*) beginning spring 2022 and any subsequent terms

    1.3.1. declare a major of Cybersecurity-Cyber Operations Emphasis

        students will need to indicate Cyber Operations Emphasis intent in the personal statement section of the UW-W E-Application

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

PROGRAM ARTICULATION TABLE		
	Waukesha County Technical College	**University of Wisconsin-Whitewater**
Program Name	Information Technology	Cybersecurity-Cyber Operations Emphasis
Award Type (e.g., AAS)	Associate of Applied Science	Bachelor of Science
Credit Length	61-64	120 Minimum Credits
Program Admission Requirements		2.0 Minimum Cumulative GPA

SECTION A.1 - General Studies

WCTC				UW-W				
Course Prefix & Number	Course Name	GE Area	Credits	Course Prefix & Number	Course Name	GE Area	Credits Applied	**Equiv Sub Wav**
	General Education							
801-136	English Composition I		3	ENGLISH 101	College Writing & Reading		3	
801-196	Oral/Interpersonal Comm		3	COMM 9999S	Comm Elective	GS	3	
801-197	Technical Reporting		3	ENGLISH 999	English Elective		3	
801-198	Speech		3	COMM 110	Intro to Public Speaking		3	
804-133	Math & Logic		3	MATH 999	Math Elective		3	**Math 41
804-189	Introductory Stats		3	STAT 101	Elementary Statistics		3	**Math 140
804-195	*College Algebra W Apps		**3**	**MATH 142**	**College Algebra**		**3**	
809-143	Microeconomics		3	ECON 201	Principles of Microeconomics	GS	3	
809-195	Economics		3	ECON 9999S	Economics Elective	GS	3	
809-196	Intro to Sociology		3	SOCIOLGY 240	Principles of Sociology	GS	3	
809-199	Psychology of Human Relations		3	PSYCH 104	Psych of Human Adjustment	GW	3	
890-108	Employment Success		1	LSINDP 999	Lsindp Elective		1	

Special Notes: * This course is not part of the WCTC IT curriculum, however it is suggested to complete prior to enrollment at UW-W. ** Math 41 and Math 140 are waived upon completion of 804-133 and 804-189.

Special Notes: General Education courses listed are part of Waukesha County Technical College A.A.S. Information Technology curriculum. Additional General Education coursework required by UW-W is determined upon admission and based on all transferrable work from all institutions attended. View general education requirements here: http://uww-public.courseleaf.com/undergraduate/general-information/general-education/#electivestext

WAUKESHA COUNTY TECHNICAL COLLEGE	UNIVERSITY OF WISCONSIN WHITEWATER

Waukesha County Technical College
Associate of Applied Science
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University of Wisconsin-Whitewater
Bachelor of Science- Cybersecurity
Cyber Operations Emphasis

SECTION B.1 – IT - Web and Software Developer

WCTC: IT - Web and Software Developer			UW-W Cybersecurity-Cyber Operations Emphasis			
152-112	Intro to Programming with C#	3	COMPSCI 172	Introduction to Java	3	
152-130 **AND** 152-131	Introduction to Java **and** Software Architecture	2 2	COMPSCI 999 COMPSCI 220	Compsci Elective Intermediate Java	1 3	
	Degree Completion	18	Major - Applied Technical Skills Requirement		18	
	Degree Completion	20	Electives Towards Graduation		20	
Major, Emphasis, Unrestricted Electives Total		45		**Section B Subtotal**	45	
General Studies Requirements for IT-Web and Software Developer (Section A)		19		**Section A Subtotal**	19	
				Total Technical College Credits Applied	64	

Special Notes, if any: Degree completion credits earned will be applied in a block equivalency. Grades will appear as "S" for satisfactory on the evaluation of transfer credits.

SECTION B.2 – IT - Cybersecurity Specialist

WCTC: IT-Cybersecurity Specialist			UW-W Cybersecurity-Cyber Operations Emphasis			
151-103 **AND** 151-104	Firewall Security **and** Intrusion Detection	3 3	COMPSCI 999 COMPSCI 354	Compsci Elective Intrusion Detection and Incident Response	3 3	
150-164 **AND** 150-188	Intro to Bash Shell Scripting **and** Linux Essentials	1 3	COMPSCI 999 COMPSCI 481	Compsci Elective Web Server and Unix Administration	1 3	
150-117 **AND** 150-118	Introduction to Cisco Networks **and** Switching Routing & Wireless	3 3	COMPSCI 999 MISC 999ST	Compsci Elective Special Transfer Course	3 3	
150-137	MS Server	3	MISC 999ST	Special Transfer Course	3	
151-107	Web Application Security	3	COMPSCI 441	Web Security	3	
151-105	Digital Forensics	3	COMPSCI 342	Digital Forensics	3	
150-157	Security II	3	CYBER 101	Introduction to Cybersecurity	3	
	Degree Completion	18	Major - Applied Technical Skills Requirement		18	
	Degree Completion	1	Electives Towards Graduation		1	
Major, Emphasis, Unrestricted Electives Total		47		**Section B Subtotal**	47	
General Studies Requirements for IT- Cybersecurity Specialist (Section A)		16		**Section A Subtotal**	16	
				Total Technical College Credits Applied	63	

WAUKESHA COUNTY TECHNICAL COLLEGE	UNIVERSITY OF WISCONSIN WHITEWATER
Waukesha County Technical College	**University of Wisconsin-Whitewater**
Associate of Applied Science	**Bachelor of Science- Cybersecurity**
Information Technology	Cyber Operations Emphasis

Special notes if any: Degree completion credits earned will be applied in a block equivalency. Grades will appear as "S" for satisfactory on the evaluation of transfer credits.

SECTION B.3 – IT - Data Specialist						
WCTC: IT-Data Specialist			**UW-W Cybersecurity-Cyber Operations Emphasis**			
152-112	Intro to Programming with C#	3	COMPSC 172	Introductory Programming	3	
	Degree Completion	18	Major - Applied Technical Skills Requirement		18	
	Degree Completion	23	Electives Towards Graduation		23	
Major, Emphasis, Unrestricted Electives Total		44	**Section B Subtotal**		44	
General Studies Requirements for IT-Database Specialist (Section A)		19	**Section A Subtotal**		19	
			Total Technical College Credits Applied		63	

Special Notes, if any: Degree completion credits earned will be applied in a block equivalency. Grades will appear as "S" for satisfactory on the evaluation of transfer credits.

SECTION B.4 – IT - Network Specialist						
WCTC: IT-Network Specialist			**UW-W Cybersecurity-Cyber Operations Emphasis**			
150-164 AND **150-188**	Intro to Bash Shell Scripting **and** Linux Essentials	1 3	COMPSCI 999 COMPSCI 481	Compsci Elective Web Server and Unix Administration	1 3	
150-117 AND **150-118**	Introduction to Cisco Networks Switching **and** Routing & Wireless	3 3	COMPSCI 999 MISC 999ST	Compsci Elective Special Transfer Course	3 3	
150-137	MS Server	3	MISC 999ST	Special Transfer Course	3	
	Degree Completion	18	Major - Applied Technical Skills Requirement		18	
	Degree Completion	11	Electives Towards Graduation		11	
Major, Emphasis, Unrestricted Electives Total		42	**Section B Subtotal**		42	
General Studies Requirements for IT- Network Specialist (Section A)		19	**Section A Subtotal**		19	
			Total Technical College Credits Applied		61	

Special Notes, if any: Degree completion credits earned will be applied in a block equivalency. Grades will appear as "S" for satisfactory on the evaluation of transfer credits.

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SECTION B.5- Front End Web Development					
WCTC: Front End Web Development			**UW-W Cybersecurity-Cyber Operations Emphasis**		
	Degree Completion	18	Major - Applied Technical Skills Requirement	18	
	Degree Completion	26	Electives Towards Graduation	26	
Major, Emphasis, Unrestricted Electives Total		44	**Section B Subtotal**	44	
General Studies Requirements for Front End Web Developer (Section A)		19	**Section A Subtotal**	19	
			Total Technical College Credits Applied	63	
Special Notes, if any: Degree completion credits earned will be applied in a block equivalency. Grades will appear as "S" for satisfactory on the evaluation of transfer credits.					

SECTION B.6 - IT- Computer Support Specialist					
WCTC: IT- Computer Support Specialist			**UW-W Cybersecurity-Cyber Operations Emphasis**		
150-137	MS Server	3	MISC 999ST	Special Transfer Course	3
	Degree Completion	18	Major - Applied Technical Skills Requirement	18	
	Degree Completion	21	Electives Towards Graduation	21	
Major, Emphasis, Unrestricted Electives Total		42	**Section B Subtotal**	42	
General Studies Requirements for IT- Computer Support Specialist (Section A)		19	**Section A Subtotal**	19	
			Total Technical College Credits Applied	61	
Special Notes, if any: Degree completion credits earned will be applied in a block equivalency. Grades will appear as "S" for satisfactory on the evaluation of transfer credits.					

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SECTION C.1 – <u>Remaining</u> Cybersecurity- Cyber Operation Emphasis Major Courses at UW-W					
WCTC: IT - Web and Software Developer					
WCTC Equivalent (if applicable)	WCTC Course Name	Credit Amount	UW-W Course Number	UW-W Course Name	Credit Amount
Unique Requirements 9 credits (6 remaining credits needed):					
			COMPSI 215 or MATH 280	Discrete Structures or Discrete Mathematics	3
			ENGLISH 370 or 371 or 372	Technical Writing	3
Major Requirements 54 credits (33 remaining credits needed):					
			CYBER 101	Introduction to Cybersecurity	3
			COMPSCI 271	Computer Organization and Assembly Programming	3
			ITSCM 331 or COMPSCI 481	System Administration / Web Server and Unix Administration	3
			ITSCM 332 or COMPSCI 460	Network Administration / Computer Networking	3
			COMPSCI 353	Cybersecurity Law and Policy	3
			COMPSCI 354	Intrusion Detection and Incident Response	3
			*COMPSCI 455	Cryptography and Network Security	3
			ITSCM 452	Information Assurance and Security	3
			CYBER 459	Systems Security Engineering	3
			Remaining elective credits in the major		6
Special Notes, if any: *COMPSCI 223 is a pre-requisite to COMPSCI 455 and is required for all students. COMPSCI 223 can be taken to fulfill 3 credits of elective coursework.					

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SECTION C.2 – <u>Remaining</u> Cybersecurity- Cyber Operation Emphasis Major Courses at UW-W					
WCTC: IT-Cybersecurity Specialist					
WCTC Equivalent (if applicable)	WCTC Course Name	Credit Amount	UW-W Course Number	UW-W Course Name	Credit Amount
Unique Requirements 9 credits (9 remaining credits needed):					
			COMPSCI 172 or 174	Introductory Programming	3
			COMPSI 215 or MATH 280	Discrete Structures/ Discrete Mathematics	3
			ENGLISH 370 or 371 or 372	Technical Writing	3
Major Requirements 54 credits (18 remaining credits needed):					
			COMPSCI 220 or 222	Intermediate Programming	3
			COMPSCI 271	Computer Organization and Assembly Programming	3
			COMPSCI 353	Cybersecurity Law and Policy	3
			*COMPSCI 455	Cryptography and Network Security	3
			ITSCM 452	Information Assurance and Security	3
			CYBER 459	Systems Security Engineering	3
			Remaining elective credits in the major		0
Special Notes, if any: *COMPSCI 223 is a pre-requisite to COMPSCI 455 and is required for all students. COMPSCI 223 can be taken to fulfill 3 credits of elective coursework.					

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SECTION C.3 – <u>Remaining</u> Cybersecurity- Cyber Operation Emphasis Major Courses at UW-Whitewater					
WCTC: IT-Data Specialist					
WCTC Equivalent (if applicable)	WCTC Course Name	Credit Amount	UW-W Course Number	UW-W Course Name	Credit Amount
Unique Requirements 9 credits (6 remaining credits needed):					
			COMPSI 215 or MATH 280	Discrete Structures/ Discrete Mathematics	3
			ENGLISH 370 or 371 or 372	Technical Writing	3
Major Requirements 54 credits (36 remaining credits needed):					
			CYBER 101	Introduction to Cybersecurity	3
			COMPSCI 220 or 222	Intermediate Programming	3
			COMPSCI 271	Computer Organization and Assembly Programming	3
			ITSCM 331 or COMPSCI 481	System Administration / Web Server and Unix Administration	3
			ITSCM 332 or COMPSCI 460	Network Administration / Computer Networking	3
			COMPSCI 353	Cybersecurity Law and Policy	3
			COMPSCI 354	Intrusion Detection and Incident Response	3
			*COMPSCI 455	Cryptography and Network Security	3
			ITSCM 452	Information Assurance and Security	3
			CYBER 459	Systems Security Engineering	3
			Remaining elective credits in the major		6
Special Notes, if any: *COMPSCI 223 is a pre-requisite to COMPSCI 455 and is required for all students. COMPSCI 223 can be taken to fulfill 3 credits of elective coursework.					

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SECTION C.4 – <u>Remaining</u> Cybersecurity- Cyber Operation Emphasis Major Courses at UW-Whitewater					
WCTC: IT-Network Specialist					
WCTC Equivalent (if applicable)	WCTC Course Name	Credit Amount	UW-W Course Number	UW-W Course Name	Credit Amount
Unique Requirements 9 credits (9 remaining credits needed):					
			COMPSCI 172 or 174	Introductory Programming	3
			COMPSI 215 or MATH 280	Discrete Structures/ Discrete Mathematics	3
			ENGLISH 370 or 371 or 372	Technical Writing	3
Major Requirements 54 credits (30 remaining credits needed):					
			CYBER 101	Introduction to Cybersecurity	3
			COMPSCI 220 or 222	Intermediate Programming	3
			COMPSCI 271	Computer Organization and Assembly Programming	3
			COMPSCI 353	Cybersecurity Law and Policy	3
			COMPSCI 354	Intrusion Detection and Incident Response	3
			*COMPSCI 455	Cryptography and Network Security	3
			ITSCM 452	Information Assurance and Security	3
			CYBER 459	Systems Security Engineering	3
			Remaining elective credits in the major		6
Special Notes, if any: *COMPSCI 223 is a pre-requisite to COMPSCI 455 and is required for all students. COMPSCI 223 can be taken to fulfill 3 credits of elective coursework.					

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SECTION C.5 – <u>Remaining</u> Cybersecurity- Cyber Operation Emphasis Major Courses at UW-Whitewater					
WCTC: Front End Web Development					
WCTC Equivalent (if applicable)	WCTC Course Name	Credit Amount	UW-W Course Number	UW-W Course Name	Credit Amount
Unique Requirements 9 credits (9 remaining credits needed):					
			COMPSCI 172 or 174	Introductory Programming	3
			COMPSI 215 or MATH 280	Discrete Structures/ Discrete Mathematics	3
			ENGLISH 370 or 371 or 372	Technical Writing	3
Major Requirements 54 credits (36 remaining credits needed):					
			CYBER 101	Introduction to Cybersecurity	3
			COMPSCI 220 or 222	Intermediate Programming	3
			COMPSCI 271	Computer Organization and Assembly Programming	3
			ITSCM 331 or COMPSCI 481	System Administration / Web Server and Unix Administration	3
			ITSCM 332 or COMPSCI 460	Network Administration / Computer Networking	3
			COMPSCI 353	Cybersecurity Law and Policy	3
			COMPSCI 354	Intrusion Detection and Incident Response	3
			*COMPSCI 455	Cryptography and Network Security	3
			ITSCM 452	Information Assurance and Security	3
			CYBER 459	Systems Security Engineering	3
			Remaining elective credits in the major		6

Special Notes, if any: *COMPSCI 223 is a pre-requisite to COMPSCI 455 and is required for all students. COMPSCI 223 can be taken to fulfill 3 credits of elective coursework.

WCTC	UNIVERSITY OF WISCONSIN WHITEWATER
Waukesha County Technical College	**University of Wisconsin-Whitewater**
Associate of Applied Science	**Bachelor of Science- Cybersecurity**
Information Technology	Cyber Operations Emphasis

SECTION C.6 – <u>Remaining</u> Cybersecurity- Cyber Operation Emphasis Major Courses at UW-Whitewater					
WCTC: IT- Computer Support Specialist					
WCTC Equivalent (if applicable)	WCTC Course Name	Credit Amount	UW-W Course Number	UW-W Course Name	Credit Amount
Unique Requirements 9 credits (9 remaining credits needed):					
			COMPSCI 172 or 174	Introductory Programming	3
			COMPSI 215 or MATH 280	Discrete Structures/ Discrete Mathematics	3
			ENGLISH 370 or 371 or 372	Technical Writing	3
Major Requirements 54 credits (33 remaining credits needed):					
			CYBER 101	Introduction to Cybersecurity	3
			COMPSCI 220 or 222	Intermediate Programming	3
			COMPSCI 271	Computer Organization and Assembly Programming	3
			ITSCM 332 or COMPSCI 460	Network Administration / Computer Networking	3
			COMPSCI 353	Cybersecurity Law and Policy	3
			COMPSCI 354	Intrusion Detection and Incident Response	3
			*COMPSCI 455	Cryptography and Network Security	3
			ITSCM 452	Information Assurance and Security	3
			CYBER 459	Systems Security Engineering	3
			Remaining elective credits in the major		6
Special Notes, if any: *COMPSCI 223 is a pre-requisite to COMPSCI 455 and is required for all students. COMPSCI 223 can be taken to fulfill 3 credits of elective coursework.					

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

2. University/General Education Requirements

2.1. The UW-W baccalaureate candidate must meet UW-W's Bachelor of Science degree and graduation requirements, including general education requirements. http://uww-public.courseleaf.com/undergraduate/letters-sciences/#degreerequirementstext

2.2. Elective courses taken or substituted at the sending institution and sending program not listed in this agreement will be reviewed on a case-by-case basis and determined how they may apply to the degree at the receiving institution.

2.2.1. Entering students may apply general education credits toward satisfying UW-W general education requirements as specified in Transferology: https://www.transferology.com/school/uww

2.3. Regardless of major, a minimum of 25% of the major course units and 25% of the minor course units must be completed at UW-W.

2.4. A minimum of 30 units of UW-W coursework is required to qualify for an undergraduate degree. At least 15 of these 30 units must be taken at UW-W immediately prior to graduation

2.5. The maximum number of credits that can be transferred from all two-year transfer institutions to UW-W is 72.

3. Additional Conditions

3.1. Program to Program transfer courses/credits are accepted only for the degree specified in this agreement. **A change of major invalidates these courses/credits for transfer** unless they are approved within some other Program to Program Articulation Agreement for a different major at UW-W.

3.2. **Degree must be posted on official transcript** to receive credits from the agreement.

3.3. The UW-W and WCTC reserve the right to make policy and program changes, which could affect the content of this agreement, due to changes in the curriculum or quality standards at either institution.

3.4. Review and renewal of this agreement will be made at appropriate intervals.

3.5. The UW-W and WCTC agree to assist each other in appropriately promoting this agreement in their respective marketing materials, events, websites, and reports.

Waukesha County Technical College

Associate of Applied Science

Information Technology

University of Wisconsin-Whitewater

Bachelor of Science- Cybersecurity

Cyber Operations Emphasis

SIGNATURE BLOCKS

Waukesha County Technical College	Name	Signature	Date
Vice President – Learning	Brad Piazza, Ph.D.		
Dean – School of Business	Kim H. Ehlert		
Associate Dean – Information Technology	Dr. Cyndi Kaye Lambach		
University of Wisconsin-Whitewater	**Name**	**Signature**	**Date**
Dean	Dr. Frank Goza		
Provost	Dr. John Chenoweth		

Agreement contact Persons:
University of Wisconsin-Whitewater: Lindsey Radloff, radloffl@uww.edu, 262-472-1483
(Program Director or Dean):
Waukesha County Technical College: Cara Bowman, CBowman@wctc.edu, 262-695-6526