



WICHITA STATE UNIVERSITY AND BUTLER COMMUNITY COLLEGE 2+2 AGREEMENT Associate in Science Degree/Bachelor's Degree in Computer Engineering March 26, 2020

The purpose of the 2+2 Agreement is to provide Butler Community College's students a four-year coordinated program through the pre-engineering curriculum where students will receive an Associate in Science degree at Butler Community College (BCC) in the first two years and a Bachelor of Science degree in Computer Engineering from Wichita State University (WSU) after two additional years. This agreement will provide guidance for both parties in advising students.

This agreement is for Butler Community College students who have:

- Earned an Associate in Science (A.S.) degree according to attached degree plan in Pre-Engineering.
- Achieved a minimum cumulative GPA of 2.0.
- Applied for admission to WSU.

Butler Community College students meeting the above requirements will:

- Be guaranteed admission to WSU with completion of application requirements and receipt of transcripts.
- Enter with junior status toward a baccalaureate degree.
- Be guaranteed to transfer 58 credit hours from Butler Community College to WSU.

This partnership reflects the following objectives, institutional expectations, and operational principles:

- Expanded student program opportunities, course articulation understandings, and transfer coordination considered mutually beneficial in this coordinated partnership.
- Graduates will possess the technical skills and conceptual background, creative mindset and applied experiences to address the workforce needs for achieving the desired economic development in the State of Kansas.
- All students must complete all major, institutional, and required degree requirements appropriate to the program curricula at the degree granting institution in order to graduate.
- Both Butler Community College and Wichita State University College of Engineering program faculty and administrators will promote the program with qualified prospective students and share assessment of learning outcomes toward the goal of program improvement.
- Students can inquire about academic and participation scholarships, financial aid, and grants by contacting the WSU Financial Aid office (316) 978-3430 and the College of Engineering, Engineering Student Success Center at (316) 978-3420.
- Students transferring to WSU from Butler Community College who have not completed an A.S. must meet the necessary requirements for admission to WSU, and will have their transcript evaluated on an individual basis.

In order to ensure a successful transition and completion of the associates' and bachelors' degrees from both institutions in this 2+2 agreement, students should refer to the required degree plans or stipulations of this agreement. Transfer students must complete at least 60 credit hours of four-year college work and no less than 45 credit hours of upper-division work in order to qualify for graduation from Wichita State University. Courses used as prerequisites may have higher grade requirements as described in the WSU undergraduate catalog.

Reverse Transfer

Students, who transfer to Wichita State University from Butler Community College before attainment of the Associate in Science degree, are eligible to reverse transfer courses that have WSU/BCC equivalency back to Butler. This allows for the attainment of the Associate in Science degree provided that at least 45 credit hours are earned at Butler and all other degree requirements are met.

Modification of Agreement

This agreement shall only be modified in writing with the same formality as the original agreement.

Terms of Agreement

The agreement will begin with the 2020-2021 academic year.

Termination of Agreement

Either party may terminate this agreement for any reason with a written notice from either party. The parties agree that termination shall include an agreement that students currently enrolled in the program at the time of termination shall be permitted to complete the program as described herein.

Wichita State University

Dr. Richard Muma Provost Wichita State University

Dr. Dennis Livesay Dean, College of Engineering Wichita State University

Butler Community College

MMIN ori Winningham

Vice President of Academics Butler Community College

JUZ WA

Mel Whiteside Dean, STEM Butler Community College

Computer Engineering Pathway (2+2) Butler Community College & Wichita State University Courses taken at Butler Community College for completion of Associate in Science Degree

		Freshman – 1st Semester (Taken at Butler) 14 Credit Hours	
Wichita State University Equivalent	Hours	Butler Community College	Hours
ENGL 101 College English I (3)	3-G	EG 101 English Composition I	3
MATH 242 Calculus I (5)	5-M	MA 151 Calculus I w/Analytic Geometry	5
General Education (Social & Behavioral Sciences) (3)	3-G	Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide	3
General Education (3)	3-G	Approved General Education as found on the WSU Transfer Guide	3
		Freshman – 2nd Semester (Taken at Butler) 17 Credit Ho	urs
ENGL 102 College English II (3)	3-G	EG 102 English Composition II	3
MATH 243 Calculus II (5)	5-M	MA 152 Calculus II w/Analytic Geometry	5
CS 211 Introduction to Programming (4)	3-C	IN 200 Beginning C++ w/Game Programming	3
COMM 111 Public Speaking (3)	3-G	SP 100 Public Speaking	3
General Education (Fine Arts) (3)	3-G	Approved General Education (Fine Arts) as found on the WSU Transfer Guide	3
	3 8 6 3 9 8 8 9	Sophomore – 1st Semester (Taken at Butler) 16 Credit Ho	ours
IME 254 Engineering Probability & Statistics I (3)	з-м	MA 220 Statistics/Mgmt, Life, Soc Sci	5
PHYS 313 Physics for Scientists I (4) and PHYS 315 University Physics Lab I (1)	4-M 0	PH 251 Physics I	5
IME 255 Engineering Economy (3)	3-C	EC 250 Engineering Economics	3
MATH 344 Calculus III (3)	3-T*	MA 253 Calculus III w/Analytic Geometry	3
	15 15 15 15 18 18 18 18	Sophomore – 2nd Semester (Taken at Butler) 14 Credit H	ours
MATH 350 Modeling Differential Equations (Satisfies MATH 555 Differential Equations I requirement) (3)	3-M	MA 260 Differential Equations	3
PHYS 314 Physics for Scientists II (4) and PHYS 316 University Physics Lab II (1)	4-M 1-M	PH 252 Physics II	5
PHIL 354 Ethics/Computers	3-G	IN 275 Info Technology Ethics	3
CS 664 Computer Networks (3)	3-C	IN 245 CCNA I Internetworking Fundamentals	3
Total:	58		61

G: General Ed.; M: Math/Science; C: Engineering Core; T: Technical Elective

* this transfers in as 3 credit hours (CH) of technical electives to make up the 1 CH lost during the transfer of IN200->CS 211
(since that provides 1CH additional TE and thus a total of 9 TEs of which 6CH must be taken at WSU)
A total of 61 credit hours taken at Butler Community College for completion of Associates in Science degree
58 credit hours will transfer to WSU towards B.S. degree in Computer Engineering

Computer Engineering Pathway (2+2)
Butler Community College & Wichita State University
Courses taken at Wichita State for completion of B.S. in Computer Engineering

Junior – 1 st Semester (Taken at WSU) 18 Credit Hours		
Wichita State University Requirement	Hours	
EE 282 Circuits I	4	
MATH 321 Discrete Structures I	3	
CS 238 Assembly Language Programming	3	
CS 311 Object-Oriented Programming	4	
CS 194 Introduction to Digital Design	4	
Junior – 2nd Semester (Taken at WSU) 18 Credit Hours	이 가 가 있다. 국민주 사망	
EE 284 Circuits II	3	
Technical Elective	3	
CS 394 Introduction to Computer Architecture	3	
CS 400 Data Structures and Algorithms I	4	
EE 492 Electronic Circuits I	4	
CS 285 L Programming w/MATLAB for EECS	1	
Senior – 1st Semester (Taken at WSU) 16 Credit Hours		
CS 594 Microprocessor Based System Design	4	
CS 540 Operating Systems	3	
EE 585 Electrical Design Project I	2	
Technical Elective	3	
CS 338 FPGA-Based System Design	4	
Senior – 2nd Semester (Taken at WSU) 14 Credit Hours	al de la dea traductione	
ME 398 Thermodynamics I	3	
Technical Elective	3	
EE 595 Electrical Design Project II	2	
MATH 511 Linear Algebra	3	
Technical Elective	3	
Total:	66	

The plan above requires 45 hours of upper-division course work.

A total of 66 credit hours taken at Wichita State for the completion of the B.S.

degree in Computer Engineering