



**WICHITA STATE UNIVERSITY AND BUTLER COMMUNITY COLLEGE 2+2 AGREEMENT
Associate in Science Degree/Bachelor's Degree in Electrical 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 Electrical 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 62 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

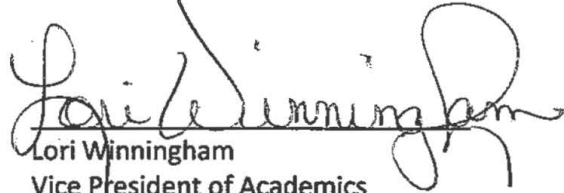
Either party may terminate this agreement for any reason with a written notice from either party. The parties agree that termination shall include an agreement that students currently enrolled in the program at the time of termination shall be permitted to complete the program as described herein.



Dr. Richard Muma
Provost
Wichita State University



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



Lori Winningham
Vice President of Academics
Butler Community College



Mel Whiteside
Dean, STEM
Butler Community College

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

		Freshman – 1st Semester (Taken at Butler) 15 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
CHEM 211 General Chemistry I (5)	5-M	CH 110 College Chemistry I	5
ENGR 101 Introduction to Engineering (2)	2-T	EN 115 Engineering Concepts	2
		Freshman – 2nd Semester (Taken at Butler) 14 Credit Hours	
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
General Education (Fine Arts) (3)	3-G	Approved General Education (Fine Arts) as found on the WSU Transfer Guide	3
		Sophomore – 1st Semester (Taken at Butler) 17 Credit Hours	
COMM 111 Public Speaking (3)	3-G	SP 100 Public Speaking	3
MATH 344 Calculus III (3)	3-M	MA 253 Calculus III w/Analytic Geometry	3
PHYS 313 Physics for Scientists I (4) and PHYS 315 University Physics Lab I (1)	4-M 1-C *	PH 251 Physics I	5
IME 255 Engineering Economy (3)	3-C	EC 250 Engineering Economics	3
General Education (Social & Behavioral Sciences) (3)	3-G	Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide	3
		Sophomore – 2nd Semester (Taken at Butler) 17 Credit Hours	
PHIL 354 Ethics/Computers	3-G	IN 275 Info Technology Ethics	3
MATH 350 Modeling Differential Equations (Satisfies MATH 555 Diff. Eq. 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 0	PH 252 Physics II	5
General Education (3)	3-G	Approved General Education as found on the WSU Transfer Guide	3
AE 223 Statics (3)	3-C	EN 260 Statics	3
Total	62		63

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

* this one credit hour transfers in towards the major to make up the credit hour lost during the transfer of IN200->CS 211;
thus for students under this umbrella, the PHYS315 class will appear under "Engineering Core"

A total of 63 credit hours taken at Butler Community College for completion of Associates in Science degree
62 credit hours will transfer to WSU towards B.S. degree in Electrical Engineering

Electrical Engineering Pathway (2+2)

**Butler Community College & Wichita State University
Courses taken at Wichita State for completion of B.S. in Electrical Engineering**

Junior – 1st Semester (Taken at WSU) 17 Credit Hours	
Wichita State University Requirement	Hours
EE 282 Circuits I	4
ME 398 Thermodynamics	3
MATH 511 Linear Algebra	3
CS 194 Introduction to Digital Design	4
IME 254 Engineering Probability & Statistics I	3
Junior – 2nd Semester (Taken at WSU) 15 Credit Hours	
EE 284 Circuits II	3
Technical Elective	3
EE 492 Electronic Circuits I	4
EE 488 Electric Machines & Transformers	4
EE 285 L Programming w/MATLAB for EE/CE	1
Senior – 1st Semester (Taken at WSU) 14 Credit Hours	
EE 463 Applied Engineering Electromagnetics	3
EE 383 Signals and Systems	3
EE 585 Electrical Design Project I	2
Technical Elective	3
Technical Elective	3
Senior – 2nd Semester (Taken at WSU) 16 Credit Hours	
EE 684 Introduction to Control Systems Concepts	3
EE 493 Electronic Circuits II	4
EE 595 Electrical Design Project II	2
EE 586 Introduction to Communications Systems	4
Technical Elective	3
Total	62

The plan above requires 45 hours of upper-division course work.
A total of 62 credit hours taken at Wichita State for the completion of the B.S.
degree in Electrical Engineering