



WICHITA STATE UNIVERSITY AND BUTLER COMMUNITY COLLEGE 2+2 AGREEMENT Associate in Science Degree/Bachelor's Degree in Biomedical 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 Biomedical 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 Associates 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 64 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

mima C ori Winningham

Vice President of Academics Butler Community College

Mel Whiteside Dean, STEM Butler Community College

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

Freshman – 1st Semester 16 Credit Hours				
Wichita State University Equivalent	Hours	Butler County Community College	Hours	
General Education (Intro Social & Behavioral Science) (3)	3-G	Approved General Education (Intro Social & Behavioral Science) as found on the WSU Transfer Guide	з	
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	
Fre	shman — 2	2nd Semester 16 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	
General Education (Fine Arts) (3)	3-G	Approved General Education (Fine Arts) as found on the WSU Transfer Guide	3	
CHEM 212 General Chemistry II (5)	5-M	CH 115 College Chemistry II	5	
Sop	homore –	1st Semester 16 Credit Hours		
COMM 111 Public Speaking (3)	3-G	SP 100 Public Speaking	3	
PHYS 313 Physics for Scientists I (4) PHYS 315 Physics Lab	4-M 1-OE*	PH 251 Physics I	5	
BIOL 210 General Biology I (4) BIOL 210 Lab	4-M 1-OE*	BI 215 Majors Biology I	-5	
IME 255 Engineering Economy	3-C	EC 250 Engineering Economics	3	
Sopi	nomore –	2nd Semester 16 Credit Hours		
PHYS 314 Physics for Scientists II (4) PHYS 316 Physics Lab	4-M 1-OE*	PH 252 Physics II	5	
General Education (3)	3-М	Approved General Education as found on the WSU Transfer Guide	3	
AE 223 Statics	3-C	EN 260 Statics	3	
BIOL 223 Anatomy & Physiology	5-M	BI 240 Anatomy & Physiology	5	
Total:	64		64	

G: General Ed.; M: Math/Science; OE: Open Elective; NA: Not Applicable

* this transfers in as an open elective

A total of 64 credit hours taken at Butler-County Community College for completion of Associates in Science degree 64 credit hours will transfer to WSU towards B.S. degree in Biomedical Engineering

Biomedical Engineering Pathway (2+2)

Butler County Community College & Wichita State University Courses taken at Butler County Community College for completion of Associate in Science Degree

Wichita State University Equivalent		
BME 115 Biomedical Engineering Seminar	Hours 0	
BME 335 Biomedical Computer Applications	3	
Technical Elective	3	
IME 254 Engineering Probability & Statistics (can be taken at Butler MA 220)	3	
BME 477 Intro to Biomaterials	3	
Technical Elective	3	
Junior – 2nd Semester 16 Credit Hours		
BME 452 Biomechanics	3	
ME 398 Thermodynamics	3	
CHEM 533 Elementary Organic Chemistry (this is a Spring-only class)	3	
EE 282 Circuits I	4	
MATH 555 Differential Equations	3	
Senior – 1st Semester 18 Credit Hours	AD AN	
BME 585 Capstone Design I	3	
PHIL 385 Engineering Ethics	3	
BME 482 Design of Biodevices	3	
BME 462 Intro to Biofluids	3	
Technical Elective (2)	6	
Senior – 2nd Semester 15/16 Credit Hours		
BME 595 Capstone Design II	3	
BME 480 Bioinstrumentation	. 3	
CHEM 661 Introduction to Biochemistry or BIOL 420 Molecular Cell Biology	3/4	
Technical Elective (2)	6	
Total:	64/65	

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

A total of 64/65 credit hours taken at Wichita State for the completion of the B.S. degree in Biomedical Engineering