



WICHITA STATE UNIVERSITY AND COWLEY COLLEGE 2+2 AGREEMENT
Associates of Science Degree/Bachelor's Degree in Biomedical Engineering
February 3, 2020

The purpose of the 2+2 Agreement is to provide Cowley College's students a four-year coordinated program through the pre-engineering curriculum where students will receive an Associates of Science degree at Cowley College (CC) 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 Cowley College students who have:

- Earned an Associates of 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.

Cowley 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 Cowley 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 Cowley 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 Cowley 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 including 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 Cowley College before attainment of the Associates of Science degree, are eligible to reverse transfer courses that have WSU/CC equivalency back to Cowley. This allows for the attainment of the Associates of Science degree provided that at least 45 credit hours are earned at Cowley 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. This agreement is a collaboration between Wichita State University and Cowley College. Any changes, corrections, or additions to this agreement shall be in writing and signed by all necessary parties between both academic institutions.

Wichita State University



Dr. Richard Muma
Provost and Professor
Wichita State University



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



Dr. Michael Jorgensen
Chair, Biomedical Engineering
Wichita State University

Cowley College



Dr. Dennis C. Rittle
President
Cowley College



Dr. Michelle Schoon
Interim Vice President of Academic Affairs
Cowley College



Scott Layton
Chair, Natural Science Department
Cowley College

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

Freshman – 1st Semester 16 Credit Hours			
Wichita State University Equivalent	Hours	Cowley Community College	Hours
ENGL 101 College English I (3)	3-G	ENG 2211 Composition I	3
MATH 242 Calculus I (5)	5-M	MTH 4435 Calculus I	5
CHEM 211 General Chemistry I (5)	5-M	CHM 4220 Chemistry I	5
General Education (Fine Arts, Humanities or Social & Behavioral Science) (3)	3-G	Approved General Education (Fine Arts, Humanities or Social & Behavioral Science) as found on the WSU Transfer Guide	3
Freshman – 2nd Semester (Taken at Cowley) 16 Credit Hours			
ENGL 102 College English II (3)	3-G	ENG 2212 Composition II	3
MATH 243 Calculus II (5)	5-M	MT 4440 Calculus II	5
General Education (Social & Behavioral Sciences) (3)	3-G	Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide	3
CHEM 212 General Chemistry II (5)	5-M	CHM 4230 Chemistry II	5
Sophomore – 1st Semester (Taken at Cowley) 17 Credit Hours			
COMM 111 Public Speaking (3)	3-G	COM 2711 Public Speaking	3
PHYS 313 Physics for Scientists I (4) PHYS 315 University Physics Lab	4-M 1-OE*	PHS 4560 Engineering Physics I	5
BIOL 210 General Biology I (4)	4-M 1-OE*	BIO 4125 General Biology I	5
IME 254 Engr Probability/statistics I	3	MTH 4445 Engr Probability & Stats I	3
HPS 2000 Elective (not transferable to B.S. degree)	0	Health & Physical Education Elective	1
Sophomore – 2nd Semester (Taken at Cowley) 16 Credit Hours			
PHYS 314 Physics for Scientists II PHYS 316 University Physics Lab II	4-M 1-OE*	PHS 4561 Engineering Physics II	5
General Education Fine Arts (3)	3-M	Approved General Education (Fine Arts) as found on the WSU Transfer Guide	3
IME 255 Engineering Economy	3-G	PHS 4555 Engineering Economy	3
BIOL 223 Anatomy & Physiology	5-M	BIO 4150 Human Anatomy and Physiology	5
Total:	64		65

G: General Ed.; M: Math/Science; OE: Open Elective

* this transfers in as 1 credit hour of open elective

A total of 65 credit hours taken at Cowley 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)
Cowley Community College & Wichita State University
Courses taken at Cowley Community College for completion of Associate in Science Degree

Junior – 1st Semester 15 Credit Hours	
Wichita State University Equivalent	Hours
BME 115 Biomedical Engineering Seminar	0
BME 335 Biomedical Computer Applications	3
AE 223 Statics (can be taken at Cowley PHS 4570)	3
ME 398 Thermodynamics	3
BME 477 Intro to Biomaterials	3
Engineering Technical Elective	3
Junior – 2nd Semester 16 Credit Hours	
BME 452 Biomechanics	3
CHEM 533 Elementary Organic Chemistry	3
Engineering Technical Elective	3
EE 282 Circuits I	4
MATH 555 Differential Equations	3
Senior – 1st Semester 18 Credit Hours	
BME 585 Capstone Design I	3
PHIL 385 Engineering Ethics	3
BME 482 Design of Biodevices	3
BME 462 Intro to Biofluids	3
Engineering Technical Elective	3
Engineering Technical Elective	3
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
Engineering Technical Elective	3
Engineering Technical Elective	3
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