



# WICHITA STATE UNIVERSITY AND BUTLER COMMUNITY COLLEGE 2+2 AGREEMENT Associate in Applied Science Degree/Bachelor's Degree in Engineering Technology-Mechatronics Technology December 6, 2017

The purpose of the 2+2 Agreement is to provide Butler Community College's students a four-year coordinated program through the engineering technology curriculum where students will receive an Associate in Applied Science degree at Butler Community College (BCC) in the first two years and a Bachelor of Science degree in Engineering Technology 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 Applied Science (A.A.S.) degree according to attached degree plan in engineering technology.
- 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 54 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.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 Applied 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 Applied 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 2017-2018 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. Anthony J. Wizini

**Provost and Senior Vice President** 

Wichita State University

Dr. Royce Bowden

Dean, College of Engineering

Wichita State University

Dr. Krishna Krishnan

**Department Chair** 

Industrial, Systems and Manufacturing Engineering

**Butler Community College** 

Lori Winningham

Vice President of Academic Affairs

**Butler Community College** 

Mel Whiteside

Dean, Science, Technology, Engineering and

Mathematics

**Butler Community College** 

**Brett Trimpe** 

**Engineering Technology Lead Instructor** 

**Butler Community College** 

### Engineering Technology-Mechatronics Technology Pathway (2+2) Butler Community College & Wichita State University Courses taken at Butler Community College for completion of an Associate in Applied Science Degree

Freshman – 1st Semester (Taken at Butler) 15 Credit Hours		
Wichita State University Equivalent	Butler Community College	Hours
Not applied toward BSET degree	MA 140 Trigonometry	3
Credit used after successful completion of EN 102	EN 101 Engineering Graphics I	3
Not applied toward BSET degree	EN 111 Fundamentals of Power Technology	3
IME 258 Manufacturing Methods and Materials I	IT 204 OR EN 201 Materials & Processes of Industry	3
ENGL 101 College English I	EG 101 English Composition I	3
Freshman – 2 <sup>nd</sup> Semester (1	aken at Butler) 14 Credit Hours	
IME 222/L Engineering Graphics/Lab	EN 102 Engineering Graphics II	3
Technical Elective	EN 214 3D Modeling and CAD	3
MATH 242 Calculus I	MA 151 Calculus I w/Analytic Geometry	5
ENGL 102 College English II	EG 102 English Composition II	3
Sophomore – 1 <sup>st</sup> Semester (	Taken at Butler) 17 Credit Hours	
Technical Elective	EN 220 Beginning Concepts of CNC	3
ENGT 320 Circuits Technology	EN 212 Electrical Circuits	3
IME 255 Engineering Economy I	EC 250 Engineering Economics	3
MATH 243 Calculus ii	MA 152 Calculus II w/Analytic Geometry	5
COMM 111 Public Speaking	SP 100 Public Speaking	3
Sophomore – 2 <sup>nd</sup> Semester	(Taken at Butler) 14 Credit Hours	
Technical Elective	EN 215 Automated Power Systems	3
Technical Elective	EN 230 Part Design	3
General Education (Humanities)-PHIL 144 Moral Issues	Approved General Education (Humanities) as found on the WSU Transfer Guide-Recommended PL 291-Ethics	3
CHEM 211 General Chemistry I	CH 110 College Chemistry I	5

A total of 60 credit hours taken at Butler Community College for completion of the Associate in Applied Science A total of 54 credit hours will transfer to WSU towards B.S. degree in Engineering Technology

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

Junior – 1st Semester (Taken at WSU) 17 Credit Hours			
Wichita State University Requirement	Hours		
PHYS 213 General Physics I	5		
CS 194 Intro to Digital Design	4		
WSUE102A First Year Seminar in Tech and Innovation (Social and Behavioral Science)	3		
CS 211 Intro to Programming	4		
ENGT 301 Fundamentals of Engineering Technology	1		
Junior – 2 <sup>nd</sup> Semester (Taken at WSU) 16 Credit Hours			
PHIL 385 Engineering Ethics	3		
General Education Requirement (Fine Arts)	3		
General Education Requirement (Social and Behavioral Sciences)-Recommend ECON 201 or PSY 111 or SOC 111	3		
ENGT 354 Statistical Process Control	3		
ENGT 312 Applied Statistics	3		
Technical Elective	1		
Senior – 1st Semester (Taken at WSU) 18 Credit Hours			
ENGT 323 Introduction to Fluids	3		
ENGT 334 Introduction to Strength and Mechanics of Materials	3		
ENGT 497 Electrical Machines and Electronic Circuits	4		
ENGT 361 Industrial Controls and Instrumentation	4		
ENGT 401 Senior Design Project I	3		
ENGT 313 Applied Dynamics	1		
Senior — 2nd Semester (Taken at WSU) 15 Credit Hours			
ENGT 348 Machine Elements	3		
ENGT 410 Robotics Technology	3		
ENGT 411 Micro-Based Mechanical Systems Technology	3		
ENGT 402 Senior Design Project II	3		
General Education Requirement (Further Studies in Social and Behavioral Sciences or Humanities)	3		

A total of 66 credit hours taken at Wichita State for the completion of the B.S. degree in Engineering Technology – Mechatronics Technology