



**2+2 Articulation Agreement Between  
Wichita State University and Butler Community College**

**March 27, 2019**

The purpose of this 2+2 agreement is to provide Butler Community College students the opportunity to transfer coursework from Butler Community College (Butler) to Wichita State University (WSU) in pursuit of a baccalaureate degree with a major in Product Design and Manufacturing Engineering.

This agreement is for Butler students who have:

- Earned an Associates of Arts (A.A.) or Associates of Science (A.S.) degree
- Achieved a minimum cumulative GPA of 2.0
- Applied for admission to WSU

Butler 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 all credits (100 level and higher) up to but not exceeding 64 credits from Butler with an earned grade of a C or better

Students can inquire about academic and participation scholarships, financial aid, and grants by contacting the WSU Financial Aid office (316-978-3430) or Butler's Advising Office (316) 322-6404.

For graduation from WSU with a Bachelor of Science in Product Design and Manufacturing Engineering degree, students will need to fulfill transfer coursework from Butler along with all WSU general education requirements, degree requirements, and must meet all requirements for graduation as outlined by WSU.

To apply for admission students may contact the WSU Admissions office by calling: (316) 978-3085. Information and applications can also be found online at: [www.admissions@wichita.edu](http://www.admissions@wichita.edu).

Students transferring to WSU from Butler who have not completed an A.A. or A.S. must meet the necessary requirements for admission to WSU, and will have their transcript evaluated on an individual basis.



**Wichita State University**

A handwritten signature in black ink, appearing to be 'R. Muma', written over a horizontal line.

**Dr. Richard D. Muma**  
**Provost and Professor**

A handwritten signature in black ink, appearing to be 'D. Livesay', written over a horizontal line.

**Dr. Dennis Livesay**  
**Dean, College of Engineering**

**Butler Community College**

A handwritten signature in blue ink, appearing to be 'Dr. Kimberly Krull', written over a horizontal line.

**Dr. Kimberly Krull**  
**President**

A handwritten signature in blue ink, appearing to be 'Lori Winningham', written over a horizontal line.

**Lori Winningham**  
**Vice President of Academics**

**Product Design and Manufacturing Engineering Pathway (2+2)  
Butler Community College & Wichita State University**

**Courses taken at Butler Community College for completion of Associate in Science Degree**

<b>Freshman – 1<sup>st</sup> Semester (Taken at Butler) 15 Credit Hours</b>		
<b>Wichita State University Equivalent</b>	<b>Butler Community College</b>	<b>Hours</b>
ENGL 101 College English I	EG 101 English Composition I	3
MATH 242 Calculus I	MA 151 Calculus I w/Analytic Geometry	5
CHEM 211 General Chemistry I	CH 110 College Chemistry I	5
ENGR 101 Introduction to Engineering (TE*)	EN 115 Engineering Concepts	2
<b>Freshman – 2<sup>nd</sup> Semester (Taken at Butler) 15 Credit Hours</b>		
ENGL 102 College English II	EG 102 English Composition II	3
MATH 243 Calculus II	MA 152 Calculus II w/Analytic Geometry	5
IME 258 Manufacturing Methods & Materials I	IT 204 <b>OR</b> EN 201 Materials & Processes of Industry	3
General Education (Fine Arts)	Approved General Education (Fine Arts) as found on the WSU Transfer Guide	3
HPS 2000 Elective (not transferable to B.S. degree)	Any Fitness/Wellness Elective	1
<b>Sophomore – 1<sup>st</sup> Semester (Taken at Butler) 17 Credit Hours</b>		
COMM 111 Public Speaking	SP 100 Public Speaking	3
General Education (Social & Behavioral Science)	Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide	3
PHYS 313 Physics for Scientists I (4 hours) and PHYS 315 University Physics Lab I (1 hour)	PH 251 Physics I	5
Credit awarded after successful completion of EN 102 (TE*)	EN 101 Engineering Graphics I	3
IME 255 Engineering Economy	EC 250 Engineering Economics	3
<b>Sophomore – 2<sup>nd</sup> Semester (Taken at Butler) 17 Credit Hours</b>		
General Education (Humanities)	Approved General Education (Humanities) as found on the WSU Transfer Guide	3
General Education (Social & Behavioral Science)	Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide	3
PHYS 314 Physics for Scientists II (4 hours) and PHYS 316 University Physics Lab II (1 hour)	PH 252 Physics II	5
IME 222 Engineering Graphics & IME 222L Graphics Lab	EN 102 Engineering Graphics II	3
MATH 350 Modeling Differential Equations (Satisfies MATH 555 Differential Equations I requirement)	MA 260 Differential Equations	3

\*TE: Transferred as Technical Elective credits

A total of 64 credit hours taken at Butler Community College for completion of Associate in Science degree  
63 credit hours will transfer to WSU towards B.S. degree in Product Design and Manufacturing Engineering

**Product Design and Manufacturing Engineering Pathway (2+2)**

**Butler Community College & Wichita State University**

**Courses taken at Wichita State for completion of B.S. in Product Design and Manufacturing Engineering**

<b>Junior – 1<sup>st</sup> Semester (Taken at WSU) 17 Credit Hours</b>	
<b>Wichita State University Requirement</b>	<b>Hours</b>
EE 282 Circuits I	4
IME 254 Engineering Probability & Statistics I	3
General Education (Further Studies)	3
ME 250 Materials Engineering	3
ME 251 Materials Engineering Laboratory	1
AE 223 Statics	3
<b>Junior – 2<sup>nd</sup> Semester (Taken at WSU) 17 Credit Hours</b>	
AE 333 Mechanics of Materials	3
Technical Elective	4
IME 558 Manufacturing Methods II	4
PHIL 385 Engineering Ethics	3
MATH 451 Computational Mathematics Using MATLAB	3
<b>Junior – Summer Semester (Taken at WSU) 3 Credit Hours</b>	
IME 676 Aircraft Manufacturing and Assembly	3
<b>Senior – 1<sup>st</sup> Semester (Taken at WSU) 13 Credit Hours</b>	
IME 361 Industrial Controls and Instrumentation	4
IME 553 Production Systems	3
Technical Elective	3
IME 425 Kinematic and Dynamic Design	3
<b>Senior – 2<sup>nd</sup> Semester (Taken at WSU) 15 Credit Hours</b>	
IME 410 Robotics Tech	3
ME 672 Manufacturing of Composites	3
IME 590 Industrial Engineering Design I	3
IME 554 Statistical Quality Control	3
IME 625 Robust Product Design	3

The plan above requires 45 hours of upper-division course work.  
 A total of 65 credit hours taken at Wichita State for the completion of the B.S.  
 degree in Product Design and Manufacturing Engineering