

# TRANSFER ARTICULATION AGREEMENT

Wichita State University

Butler Community College

*Associate in Applied Science of Manufacturing Engineering Technology*

**B.S. Manufacturing Engineering or B.S. Industrial Engineering**

Butler AAS Manufacturing Engineering Technology Requirements			Recommended AAS Classes Transferable to WSU for BSIE or BSMfgE			Wichita State University BS MfgE Requirements			Wichita State University BS IE Requirements					
Course	Course Name	Cr Hrs	Course	Course Name	Cr Hrs	Course	Course Name	Cr Hrs	Course	Course Name	Cr Hrs			
EG 101	English Composition I	3	EG 101	English Composition I	3	ENGL 101	College English I	3	ENGL 101	College English I	3			
EG 102	English Composition II	3	EG 102	English Composition II	3	ENGL 102	College English II	3	ENGL 102	College English II	3			
SP 100	Public Speaking	3	SP 100	Public Speaking	3	COMM 111	Public Speaking	3	COMM 111	Public Speaking	3			
							Fine Arts Elective	3		Fine Arts Elective	3			
						PHIL 385	Engineering Ethics	3	PHIL 385	Engineering Ethics	3			
							Humanities Elective	3-6		Humanities Elective	3-6			
BS 160	General Psychology	3	BS 160	General Psychology	3		Social/Behavioral Sci Electives	6-9		Social/Behavioral Sci Electives	6-9			
MA 131	College Algebra (OR higher level)	3	MA 151	Calc I with Analytical Geometry	5	MATH 242	Calculus I	5	MATH 242	Calculus I	5			
						MATH 243	Calculus II	5	MATH 243	Calculus II	5			
						MATH 344	Calculus III	3	MATH 344	Calculus III	3			
						MATH 555	Differential Equations	3	*If have credit for Diff Eq, qualify for Math minor					
									MATH 511	Linear Algebra	3			
						IME 254	Engr Probability & Statistics I	3	IME 254	Engr Probability & Statistics I	3			
						PHYS 313	University Physics I	4	PHYS 313	University Physics I	4			
						PHYS 314	University Physics II	4	PHYS 314	University Physics II	4			
CH 105	Chemistry (OR higher level)	3	CH 110	College Chemistry	5	CHEM 211	General Chemistry	5	CHEM 211	General Chemistry	5			
	Elective	3	EN 260	Statics (Take only if extra MA & PH hrs don't count as electives)	3	AE 223	Statics	3	AE 223	Statics	3			
						ECE 282	Circuits I	4	ECE 282	Circuits I	4			
						IME 255	Engr Economy	3	IME 255	Engr Economy	3			
						ME 398	Thermodynamics I	3	ME 398	Thermodynamics I	3			
	Elective	3	IN 200	Intro to Programming (BCC) OR	3	ME 325*	Computer Applications	3	MIS 310*	Fundamentals of Programming	3			
			IN 264	Visual Basic.NET (BCC)	3	ME 250/251	Materials Engineering w/ Lab	4	ME 250	Materials Engineering	3			
IT 226	Intro to Material & Mfg Science	3	IT 226	Intro to Material & Mfg Science	3	IME 258	Mfg Methods & Materials I	3	IME 258	Mfg Methods & Materials I	3			
IT 218	Basic CATIA	3		May attempt test out of IME 222		IME 222	Eng Graphics	3	IME 222	Eng Graphics	3			
						AE 333	Mechanics of Materials	3	IME 452	Work Systems	3			
IT 100	Machine Processes I	3	Required for AAS but do not count towards WSU IME or MfgE degree			IME 524	Engr Probability & Statistics II	3	IME 524	Engr Probability & Statistics II	3			
IT 102	Machine Processes II	3				IME 439	Mech Engr Design I	3	IME 549	Industrial Ergonomics	3	IME 549	Industrial Ergonomics	3
IT 120	Beginning Concepts of CNC	3				IME 558	Mfg Methods & Materials II	4	IME 550	Operations Research	3	IME 550	Operations Research	3
IT 150	Machine Trades Print Reading	1				IME 553	Production Systems	3	IME 553	Production Systems	3	IME 553	Production Systems	3
IT 204	Manufacturing Processes	3				IME 554	Statistical Quality Control	3	IME 554	Statistical Quality Control	3	IME 554	Statistical Quality Control	3
IT 227	Manufacturing Science	3				IME 576	Composites Manufacturing	3	IME 556	Information Systems	3	IME 556	Information Systems	3
IT 230	Manufacturing Part Design	3				IME 664	Engineering Management	3	IME 563	Facilities Planning	2	IME 563	Facilities Planning	2
IT 260	Intro to Quality Assurance	3				IME 676	Aircraft Mfg & Assembly	3	IME 565	Systems Simulation	3	IME 565	Systems Simulation	3
									IME 590	IME Design I	3	IME 590	IME Design I	3
									IME 690	IME Design II	3	IME 690	IME Design II	3
IT 263	Introduction to Metrology	3	IT 263	Introduction to Metrology	3	IME XXX	Technical Elective	3	IME XXX	Technical Elective	3			
IT 219	Advanced CATIA	3	IT 219	Advanced CATIA	3	IME XXX	Technical Elective	3	IME XXX	Technical Elective	3			
IT 205	Industrial Safety	3	IT 205	Industrial Safety	3	??? XXX	Out-of-Dept Tech Elective	3	??? XXX	Out-of-Dept Tech Elective	3			
IT 220	Adv. Automated Mfg w/CNC	3	IT 220	Adv. Automated Mfg w/CNC	3				??? XXX	Out-of-Dept Tech Elective	3			
			*Note: Only 9 hrs count toward MfgE degree; 12 for IE											
	<b>TOTAL REQD BUTLER HRS</b>	<b>64</b>		<b>BUTLER to WSU IE HRS</b>	<b>43</b>		<b>TOTAL WSU MFGE HRS</b>	<b>128</b>		<b>TOTAL WSU IE HRS</b>	<b>128</b>			

**BUTLER to WSU MfgE HRS**                      **40**  
**TOTAL BUTLER HRS TAKEN**                      **65**

Upper Division @ WSU                      54

Upper Division @ WSU                      52

\* = OR CS 211- Problem Solving & Programming in C

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