

## 2+2 Transfer Plan for EICC Students to Major in a Bachelor of Science in Engineering (BSE), Mechanical Track at Augustana College

First Year, Classes taken at EICC					
<i>Fall</i>			<i>Spring</i>		
EICC	Credit	AC Equivalent	EICC	Credit	AC Equivalent
ENG 105 English Comp I	3	ENGL 101 College Writing	ENG 106 English Comp II	3	ENGL 102TR - English elective course
PSY 111 Introduction to Psychology	3	PSYC 100 Intro to Psychology (PS)*	MAT 216 Calculus II	4	MATH 220 Integration Methods and MATH 230 Infinite Series (2 + 2 credits)
MAT 210 Calculus I	4	MATH 160 Calculus	PHY 212 Classical Physics I	5	PHYS 211 Foundational Physics I
CHM 165/166 Gen Chemistry I	5	CHEM 131 General Chemistry I	SPC 112	3	COMM 101 Public Speaking
PEH 109 Personal Wellness [elective]	1	PEA – Physical Education Activity	GLS-100 Contemporary World Issues	3	Elective
<b>Total</b>	<b>16</b>		<b>Total</b>	<b>18</b>	
Second Year, Classes taken at EICC					
<i>Fall</i>			<i>Spring</i>		
EICC	Credit	AC Equivalent	EICC	Credit	AC Equivalent
	4	ENGR 190 Intro to Design**	MAT 219 Calculus III	4	MATH 260 Multivariable Calculus
MAT 227 Differential Equations	4	MATH 320 ODEs and Linear Systems	PHI 101	3	
PHY 222 Classical Physics II	5	PHYS 212 Foundational Physics II		4	ENGR 290**
EGR 180 Statics [elective]	3	ENGR 310 Statics	LIT-130 African Am Lit	4	Learning Perspective Course*
LIT-101	3	Learning Perspective Course*	Elective	2-3	
<b>Total</b>	<b>19</b>		<b>Total</b>	<b>17-18</b>	
Third Year, Classes taken at AC					
<i>Fall</i>	Credit	<i>J-term</i>	Credit	<i>Spring</i>	Credit
Foreign Language 1***	4	Suffix Requirement (G or D)	4	Foreign Language 2***	4
PHYS 313 Thermodynamics	4			ENGR 390 Controls and Design	4
ENGR 320 Fluids and Transport	4			ENGR 360 Mechanics	4
PEA - Physical Education Activity	1			ENGR 311 Mechanics of Deformable Bodies	2
LSC 300 – Liberal Studies Courses	1			Learning Perspective (Ethics Course) or REF Requirement	4
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>4</b>	<b>Total</b>	<b>18</b>
Fourth Year, Classes taken at AC					
<i>Fall</i>	Credit	<i>J-term</i>	Credit	<i>Spring</i>	Credit
ENGR 490 Senior Inquiry Planning	2	Learning Perspective	4	ENGR 491 Senior Inquiry Analysis	2
ENGR 375 Advanced Mechanical Design and Analysis	4			Mech E Elective****	2 or 4
Mech E Elective****	2 or 4			Mech E Elective****	2 or 4
Learning Perspective/Elective	4			Learning Perspective/Elective	4
				ENGR 321 Heat Transfer	2
<b>Total</b>	<b>12-14</b>	<b>Total</b>	<b>4</b>	<b>Total</b>	<b>12-14</b>

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This plan assumes the student does not need to take college reading, writing, or pre-college math. The one-year language requirement may be completed in year 3 at Augustana College.

\*Depending on course selection, transfers as Learning Perspective and/or a Global/Diversity (G/D) general education requirement.

\*\*Taken at Augustana College under the agreement

\*\*\*If Foreign Language requirements are already fulfilled, other elective courses may be taken instead.

\*\*\*\*Some of the ME electives will be 2 credits.

### Credit Table for BSE 2+2 Transfer Plan

Math and Foundational Science				
Concentration	Course	EICC Course (Credits)	AC Course (Credits)	Credits
Math	Calculus I	MAT 210	MATH 160 (4)	4
	Calculus II	MAT 216	MATH 220 (2) + MATH 230 <sup>a</sup> (2)	4
	Calculus III	MAT 219	MATH 260 (4)	4
	ODEs and Linear Systems	MAT 227	MATH 320 (4)	4
Physics	Physics 1	PHY 212 (5)	PHYS 211 (4)	5
	Physics 2	PHY 222 (5)	PHYS 212 (4)	5
	Modeling/Simulation	No equivalent	PHYS 200 <sup>b</sup> (4)	-
Supporting Sciences	Gen Chem I	CHM 165/166 Gen Chemistry I (5)	(4)	5
			Total (1 credit more than all AC courses)	31

<sup>a</sup> Not a required course for the BSE

<sup>b</sup> Requirement of PHYS 200 waived for agreement.

Core Engineering Courses				
Course	EICC Course (Credits)	AC Course (Credits)	Credits	
Intro to Engineering Design		ENGR 190 (4)	4	
Experimentation and Design		ENGR 290 (4)	4	
Controls and Design		ENGR 390 (4)	4	
Senior Design		ENGR 490/491 (2+2)	4	
			Total (all AC courses)	16

Core Mechanical Engineering - Required				
Course	EICC Course (Credits)	AC Course (Credits)	Credits	
Statics	EGR 180 (3)	ENGR 310 (2)	2	
Mechanics of Deformable Bodies	EGR 380 (3)	ENGR 311 (2)	3	
Fluid Mechanics		ENGR 320 (4)	4	
Heat Transfer		ENGR 321 (2)	2	
Advanced Mechanical Design and Analysis		ENGR 375 (4)	4	
Thermodynamics		PHYS 313 (4)	4	
Mechanics	EGR 280 Dynamics (3)	PHYS 360 (4)	4	
			Total (1 more credit than all AC courses)	23
Core Mechanical Engineering – Electives (at least 10 credits)				
Course	EICC Course (Credits)	AC Course (Credits)	Credits	
Structural Engineering		ENGR 330 (4)	4	
Revit		ENGR 350 (2)	2	
Computational Fluids and Heat Transfer		ENGR 351 (2)	2	
Finite Element		ENGR 352 (2)	2	
Mechatronics		ENGR 360 (4)	4	
Electronics		PHYS 339 (4)	4	
Advanced Lab II		PHYS 367 (2)	2	