PROGRAM ARTICULATION DEGREE PLAN					
Southwestern Illinois College 2022-2023			***Southern Illinois University Carbondale***		
Associate in Engineering Science - 65 hrs.			BS Mechanical Engineering (ME) - 126 hrs.		
			University Core Curriculum (UCC) Capstone Option - 30 hrs.		
		Hrs			**Hrs**
			UNIV 101	Foundations of Inquiry	NA
COMM 151	Fundamentals of Public Speaking	3	CMST 101	Intro:Oral Communication	T
ENG 101	Rhetoric & Composition I	3	ENGL 101	English Composition I	T
ENG 102	Rhetoric & Composition II	3	ENGL 102	English Composition II	T
MATH 203	Calculus I	5	MATH 150 (Required for BS degree)	Calculus I	T
			ECON 240 (Required for BS degree)	Intro to Microeconomics	3
SOC 153	Introductory Sociology	3	SOC 108	Intro to Sociology	T
			HUMANITIES		3
			HUMANITIES		NA
PHYS 204	Engineering Physics: Mechanics	4	PHYS 205A/255A (Required for BS degree)	University Physics/Lab	T
			FINE ARTS		3
Human Well-Being Requirement	Select from: HES 130, 131, 151 or 152	2	HUMAN HEALTH	(See SIUC Equivalency Guide)	T
HIST 286 -or- PHIL 155	History of Religion -or- Non-Western Philosophy	3	HIST 282 -or- PHIL 308I	American Religious Diversity -or- Asian Philosophy	T
		26			**9**
			**BIOL 202 or approved Life Science course required to fulfill BS degree requirements*		
Program Requirements			**Program Requirements**		
CHEM 105	General Chemistry I	5	CHEM 200/201/202 (Required for BS degree)	Intro to Chemical Principles/Lab/Workshop	T
MATH 204	Calculus II	5	MATH 250 (Required for BS degree)	Calculus II	T
MATH 205	Calculus III	4	MATH 251 (Required for BS degree)	Calculus III	T
MATH 290	Differential Equations	3	MATH 305 (Required for BS degree)	Introduction to Ordinary Differential Equations I	T
PHYS 205	Engineering Physics: Heat,Elec,Magnt	4	PHYS 205B/255B (Required for BS degree)	University Physics/Lab	T
		21			
Mechanical Engineering Specialization					
CHEM 106	General Chemistry II	5	CHEM 210/211/212 (Required for BS degree)	General and Inorganic Chemistry/Lab/Workshop	T
ENGR 103	Engineering Graphics	4	ME 102 (Required for BS degree)	Computer-Aided Engineering Drawing	T
ENGR 263	Analytical Mechanics-Statics	3	ENGR 250 (Required for BS degree)	Statics	T
ENGR 264	Analytical Mechanics-Dynamics	3	ENGR 261 (Required for BS degree)	Dynamics	T
ENGR 271	Electrical Circuits	3	ENGR 335 (Required for BS degree)	Electric Circuits	T
ENGR 275	Mechanics of Solids	3	ENGR 350A (Required for BS degree)	Mechanics of Materials	T
		21			
			BIOL 202 (Required for BS degree)*	Human Genetics and Human Health	2
			ENGR 350B	Mechanics of Materials (LAB only)	1
			ENGR 351	Numerical Methods	3
			ENGR 370A	Fluid Mechanics	3
			ME 222	Matlab Programming for Mechanical Engineers	2
			ME 300	Engineering Thermodynamics	3
			ME 302	Engineering Heat Transfer	3
			ME 309	Mechanical Analysis & Design	3
			ME 312	Materials Science Fundamentals	3
			ME 336	System Dynamics and Control	3
			ME 401	Thermal Measurements Lab	1
			ME 407	Measurements & Controls	2
			ME 411	Manufacturing Methods: Engineering Materials	3
			ME 475	Machine Design I	3
			ME 495A	Mechanical Engineering Design	3
			ME 495B	Mechanical Engineering Design	3
			Mechanical Engineering Elective	At least 12 credit hours must be from 400-level ME courses and 3 credit hours may be from IMAE 470A or a 400-level course used for a Math minor.	15
					56
Total semester hrs. completed w/ AES degree:		**68**	**Total semester hrs. completed w/ BS degree:**		**65**
			Total hrs. to BS Degree:		**133**