PROGRAM ARTICULATION DEGREE PLAN						
Southwestern Illinois College	*2024-2025*			*Southern Illinois University Carbondale*		
Associate in Engineering Science Computer Engineering Specialty - 61 hrs				BS Computer Engineering (CEGR) - 126 hrs		
				University Core Curriculum (UCC) Capstone Option - 30 hrs		
			Hrs			**Hrs**
				UNIV 101	Saluki Success	NA
COMM 151	Fundamentals of Public Speaking		3	CMST 101	Intro to 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	NA
MATH 203	Calculus I		5	MATH 150	Calculus I	T
	Social & Behavioral Sciences		3	SOCIAL SCIENCE	*See SIUC Transfer Equivalency Guide*	T
	Social & Behavioral Sciences		3	SOCIAL SCIENCE	*See SIUC Transfer Equivalency Guide*	T
	Humanities		3	HUMANITIES	*See SIUC Transfer Equivalency Guide*	T
				HUMANITIES		NA
CHEM 105	General Chemistry I		5	CHEM 200 -and- 201	Intro to Chemical Principles w/Lab	T
				LIFE SCIENCE		3
				FINE ARTS		3
HES 151	Personal Health & Wellness		2	PH 101	Foundations of Human Health	T
				MULTICULTURAL		3
			30			**9**
Program Requirements				**Program Requirements**		
ENGR 271	Electrical Circuits		3	ENGR 335 (elective)	Electric Circuits I	T
MATH 204	Calculus II		5	MATH 250	Calculus II	T
MATH 205	Calculus III		4	MATH 251	Calculus III	T
MATH 290	Differential Equations		3	MATH 305	Intro to Differential Equations	T
PHYS 204	Physics Mechanics		4	PHYS 205A -and- 255A	University Physics w/Lab	T
PHYS 205	Physics Heat Electricity Magnetism		4	PHYS 205B -and- 255B	University Physics w/Lab	T
MATH 171	Computer Science I - Java		4	CS 202 (elective)	Intro to Computer Science	T
MATH 271	Computer Science II - Java		4	CS 220*	Programming with Data Structures.	T
			31			
				BIOL 202	Human Genetics & Human Health	2
				ECE 235 -and- 235L	Electric Circuits I w/Lab	4
				ECE 296 -and- 296L	Intro to Microcontrollers & Robotics w/Lab	4
				ECE 315	Mathematical Methods in ECE	4
				ECE 321 -and- 321L	Intro to Software Engineering w/Lab	4
				ECE 327 -and- 327L	Digital Circuit Design with HDL w/Lab	4
				ECE 329 -and- 329L	Computer Organization & Design w/Lab	4
				ECE 345 -and- 345L	Electronics w/Lab	4
				ECE 355 -and- 355L	Signals & Systems w/Lab	4
				ECE 495C	CEGR Senior Design I	3
				ECE 495D	ECE Senior Design II	3
				Technical Electives	23 hours of ECE electives. At least 20 hours from: ECE 412, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432. 3 hours can be approved CS courses	23
						63
Total semester hrs completed w/AES degree:			**61**	**Total semester hrs completed w/BS degree:**		**72**
				Total hrs to BS Degree:		**133**
Degree Plan updated on 6/24/24 by SG				*ECE 222 is equivalent to CS 220 although the progrmming language is different. We prefer C over Java, but the students don't have to take both ECE 222 & CS 220.		