PROGRAM ARTICULATION DEGREE PLAN					
Waubonsee Community College 2022-2023			***Southern Illinois University Carbondale***		
Associate in Engineering Science (AES) - 60+ hrs			BS Electrical Engineering (EE) - 126 hrs		
			University Core Curriculum (UCC) - 41 hrs		
		Hrs			**Hrs**
			UCOL 101	Foundations of Inquiry	NA
ENG 101	First-Year Composition I	3	ENGL 101	English Composition I	T
ENG 102	First-Year Composition II	3	ENGL 102	English Composition II	T
COM 100	Fund of Speech Communication	3	CMST 101	Intro:Oral Communication	T
MTH 131	Calculus & Analytical Geometry I	4	MATH 150 (Required for BS degree)	Calculus I	T
ECN 201	Principles of Microeconomics		ECON 240 (Required for BS degree)	Microeconomics	T
	*IAI Social Science	3	SOCIAL SCIENCE	*(See SIUC Equivalency Guide)*	T
	*IAI Humanities	3	HUMANITIES	*(See SIUC Equivalency Guide)*	T
			HUMANITIES		NA
CHEM 121	General Chemistry	4	CHEM 200/201 (Required for BS degree)	Intro to Chemical Principles/Lab	T
PHY 221	General Physics I	5	PHYS 205/255A (Required for BS degree)	University Physics/Lab	T
			FINE ARTS		3
			BIOL 202 (Required for BS degree)	Human Genetics and Human Health	2
			MULTICULTURAL		3
		28			**8**
**One course satisfying degree requirements must have a non-Western (N) or diversity (D) emphasis.*					
Program Requirements			**Program Requirements**		
CIS 115	Introduction to Programming	3	The AES in Engineering Science fulfills the general electives required for the BS in Electrical Engineering.		
EGR 101	Engineering Graphics	4			
CHEM 122	Chemistry & Qualitative Analysis	4	CHEM 210/211 (Required for BS degree)	General & Inorganic Chemistry/Lab	T
CIS 130 -and- 230	C++ Programing -and- Advanced C++	6	ECE 222 (Required for BS degree)	Intro to Digital Computation	T
MTH 132	Calculus & Analytical Geometry II	4	MATH 250 (Required for BS degree)	Calculus II	T
MTH 233	Calculus & Analytical Geometry III	4	MATH 251 (Required for BS degree)	Calculus III	T
MTH 240	Differential Equations	3	MATH 305 (Required for BS degree)	Intro to Differential Equations I	T
PHY 222	General Physics II	5	PHYS 205/255B (Required for BS degree)	University Physics/Lab	T
		33			
			ECE 235/235L	Electric Circuits/Lab	4
			ECE 296/296L	Software Tools for Robotics/Lab	4
			ECE 315	Math Methods in ECE	4
			ECE 327/327L	Digital Circuit Design with HDL/Lab	4
			ECE 336	Electric Circuits II	3
			ECE 345/345L	Electronics/Lab	4
			ECE 355/355L	Signals & Systems/Lab	4
			ECE 375/375L	Intro Electromagnetic Fields/Lab	4
			ECE 495D	ECE Senior Design II	3
			ECE 495E	EE Senior Design I	3
			ECE Technical Electives	At least 10 ECE hours not from ECE 412-434. Approved by the School: ECE 3XX or ECE 4XX level (except ECE 493); CHEM 210; MATH 221, 282, 302, 349, 380, or 4XX level (except MATH 411, 412); CS 3XX or 4XX level (except CS 300, 393, or 493); ENGR 2XX, 3XX, 4XX level (except CS 300, 393, or 493); ENGR 2XX, 3XX, 4XX (except ENGR 222, 296, 335), ENGR3XXi; BME 485; IMAE470A	24
					61
Total semester hrs completed with AES degree:		**61**	**Total semester hrs completed with BS degree:**		**69**
			Total to BS degree:		**130**
Degree Plan created by SW 11/19/21					