

SUNY Korea ECE Course Sequences

Electrical Engineering Major — Circuits and VLSI Specialization
Updated Spring 2025



Fall-Matriculated Students

The following table gives an eight-semester course sequence for students matriculated in the fall. If followed exactly, it guarantees that the degree requirements and course dependencies are satisfied. Courses in boldface require a grade of C or higher.

Year (Location)	Fall Semester		Spring / Summer Semester	
	Course	CR	Course	CR
Year 1 (SUNY K)	AMS 151	3	AMS 161	3
	PHY 131 and PHY 133	4	AMS 210	3
	ESE 123	4	PHY 132 and PHY 134	4
	SBC DIV and SBS	3	ESE 118	4
	WAE 192	3	WAE 194 / WRT 101	3/3
	Total CR	17	Total CR	17/3
Year 2 (SUNY K)	AMS 361	4	AMS 261	4
	ESE 124	4	ESE 224	4
	ESE 271	3	ESE 272	4
	ESE 305	3	ESE 273	3
	WRT 102	3	ESE 280	4
	Total CR	17	Total CR	19
Year 3 (SBU NY)	ESE 319	3	ESE 300	2
	ESE 323	3	ESE 301	2
	ESE 331	3	ESE 324	3
	ESE Elective	3	ESE 330	3
	SBC HUM	3	ESE 411	3
			SBC GLO	3
	Total CR	15	Total CR	16
Year 4 (SUNY K)	ESE 122 or AMS 301	3	ESE 315	3
	ESE 306	3	ESE 342	3
	ESE 440	3	ESE 441	3
	ESE Elective	3	ESE Elective	3
	SBC ARTS	3	SBC USA	3
	Total CR	15	Total CR	15
Total CR			131/3	

Spring-Matriculated Students

For students matriculated in the spring semester, completion of their studies typically spans four and a half years. This nine-semester course sequence offers greater flexibility and more room for adjustments compared to the four-year sequence for fall-matriculated students.

Year (Location)	Fall Semester		Spring Semester	
	Course	CR	Course	CR
Year 1 (SUNY K)			AMS 151	3
			PHY 131 and PHY 133	4
			ESE 123	4
			SBC DIV and SBS	3
			WAE 192	3
			Total CR	17
Year 2 (SUNY K)	AMS 161	3	ESE 124	4
	AMS 210	3	ESE 271	3
	PHY 132 and PHY 134	4	ESE 280	4
	ESE 118	4	ESE 305	3
	WAE 194	3	WRT 101	3
	Total CR	17	Total CR	17
Year 3 (SUNY K)	AMS 261	4	ESE 224	4
	AMS 361	4	ESE 272	4
	ESE 122 or AMS 301	3	ESE 273	3
	WRT 102	3	SBC HUM	3
	Total CR	14	Total CR	14
Year 4 (SBU NY)	ESE 319	3	ESE 300	2
	ESE 323	3	ESE 301	2
	ESE 331	3	ESE 324	3
	ESE Elective	3	ESE 330	3
			ESE 411	3
	Total CR	12	Total CR	13
Year 5 (SUNY K)	ESE 306	3	ESE 315	3
	ESE 440	3	ESE 342	3
	ESE Elective	3	ESE 441	3
	SBC USA	3	ESE Elective	3
	SBC GLO	3	SBC ARTS	3
	Total CR	15	Total CR	15
Total CR			134	

Spring-Matriculated Students—Accelerated

This accelerated seven-semester course sequence is designed for advanced students matriculated in the spring semester. It requires students to complete AMS 161 before the fall semester immediately following their matriculation in the spring semester, mainly because AMS 361 is only offered during the fall semesters, and because students are required to take it before visiting the NY campus. This course sequence is very challenging and allows little room for adjustments during the first four semesters.

Year (Location)	Fall Semester		Spring / Summer Semester	
	Course	CR	Course	CR
Year 1 (SUNY K)			AMS 161	3
			AMS 210	3
			PHY 131 and PHY 133	4
			ESE 123	4
			WAE 192 / WAE 194	3/3
			Total CR	17/3
Year 2 (SUNY K)	AMS 361	4	AMS 261	4
	PHY 132 and PHY 134	4	ESE 124	4
	ESE 118	4	ESE 272	4
	ESE 271	3	ESE 273	3
	ESE 305	3	ESE 280	4
	WRT 101	3	WRT 102	3
	Total CR	21	Total CR	22
Year 3 (SBU NY)	ESE 224	4	ESE 300	2
	ESE 319	3	ESE 301	2
	ESE 323	3	ESE 324	3
	ESE 331	3	ESE 330	3
	ESE Elective	3	ESE 411	3
			SBC DIV and SBS	3
	Total CR	16	Total CR	16
Year 4 (SUNY K)	ESE 122 or AMS 301	3	ESE 315	3
	ESE 306	3	ESE 342	3
	ESE 440	3	ESE 441	3
	ESE Elective	3	ESE Elective	3
	SBC ARTS	3	SBC USA	3
	SBC HUM	3	SBC GLO	3
	Total CR	18	Total CR	18
Total CR				128/3