

# B.S. Electrical Engineering

<b>Freshman (1st) Year - Fall Semester</b>		<b>2024</b>
<b>MATH-151</b>	<b>Calculus I (Every)</b>	4
<b>ENGL-110</b>	First-Year Composition I (Every)	3
<b>EGNR-101</b>	Intro. to Engineering (Fall)	2
<b>CHEM-115</b>	General Chemistry (Every)	5
	Social Science Elective	3
		<b>17</b>

<b>Freshman (1st) Year - Spring Semester</b>		<b>2025</b>
<b>MATH-152</b>	<b>Calculus II (Every)</b>	4
<b>ENGL-111</b>	First-Year Composition II (Every)	3
<b>EGNR-140</b>	Linear Algebra Num. App. for Eng. (Every)	2
<b>EGEE-125</b>	<b>Digital Fundamentals (Spring)</b>	4
	Social Science Elective	3
		<b>16</b>

<b>Sophomore (2nd) Year - Fall Semester</b>		<b>2025</b>
<b>MATH-251</b>	Calculus III (Every)	4
<b>PHYS-231</b>	<b>Applied Physics for Eng. and Sci. I (Fall)</b>	4
<b>EGEE-250</b>	Microcontroller Fundamentals (Fall)	4
<b>EGEE-280</b>	<b>Intro. to Signal Processing (Fall)</b>	4
		<b>16</b>

<b>Sophomore (2nd) Year - Spring Semester</b>		<b>2026</b>
<b>MATH-310</b>	<b>Differential Equations (Every)</b>	3
<b>PHYS-232</b>	App. Physics for Eng. and Sci. II (Spring)	4
<b>EGNR-265</b>	<b>C Programming (Every)</b>	3
<b>EGEE-210</b>	<b>Circuit Analysis (Every)</b>	4
	Humanities Elective	3
		<b>17</b>

<b>Junior (3rd) Year - Fall Semester</b>		<b>2026</b>
<b>MATH-308</b>	Probability and Math. Statistics (Fall)	3
<b>EGNR-340</b>	Numerical Methods for Eng. (Every)	1
<b>EGEE-310</b>	Network Analysis (Even Fall)	4
<b>EGEE-370</b>	Electronic Devices (Fall)	4
	Concentration/Technical Elective	3
		<b>15</b>

<b>Junior (3rd) Year - Spring Semester</b>		<b>2027</b>
<b>EGNR-346</b>	Prob. and Stats Lab for Eng. (Spring)	1
<b>EGEE-345</b>	Fund. of Eng. Electromagnet. (Odd Spring)	3
<b>EGEM-220</b>	Statics (Every)	3
	Concentration/Technical Elective	3
	Communication Elective	3
	Cultural Diversity Elective	3
		<b>16</b>

<b>Senior (4th) Year - Fall Semester</b>		<b>2027</b>
<b>EGNR-491*</b>	Engineering Design Project I (Fall)	3
<b>EGRS-460</b>	Control Systems (Fall)	4
<b>EGEE-330</b>	Electro-Mechanical Systems (Odd Fall)	4
	Concentration/Technical Elective	3
		<b>14</b>

<b>Senior (4th) Year - Spring Semester</b>		<b>2028</b>
<b>EGNR-495*</b>	Engineering Design Project II (Spring)	3
<b>EGEE-475</b>	Power Electronics (Even Spring)	4
	Concentration/Technical Elective	4
	Humanities Elective	3
		<b>14</b>

**Bolded courses require a grade of C or better for the degree**

**Minimum Total Credits: 125**

**General Technical Electives (13 credits minimum)**

<b>CSCI</b>	265
<b>EGEE</b>	320 or higher
<b>EGEM</b>	320
<b>EGME</b>	225 or higher
<b>EGNR</b>	261
<b>EGRS</b>	235, 325, 365, 372, 375, 461
<b>MATH</b>	215 or higher
Any course from concentrations	

**\*Senior Sequence Options (Discuss with Advisor)**

- Industrial** EGNR-491 & EGNR-495 as shown
- Co-Op** EGNR-250, EGNR-450, EGNR-451, & EGNR-491
- Research** EGNR-260, EGNR-460, & EGNR-461

**Robotics & Automation Concentration**

		<b>13</b>
<b>EGRS-381</b>	<b>Robotics Technology Lab (Every)</b>	1
<b>EGRS-385</b>	<b>Robotics Engineering (Spring)</b>	3
<b>EGRS-430</b>	<b>Sys. Int. and Machine Vision (Fall)</b>	4
<b>EGRS-435</b>	<b>Automated Manufacturing Sys. (Spring)</b>	2
<b>EGRS-481</b>	<b>Manufacturing Automation Lab (Every)</b>	1
	Technical Elective	2

**Digital Systems Concentration**

		<b>13</b>
<b>EGEE-320</b>	<b>Digital Design (Even Fall)</b>	4
<b>EGEE-355</b>	<b>Microcontroller Systems (Even Spring)</b>	4
<b>EGEE-425</b>	<b>Digital Signal Processing (Odd Spring)</b>	3
	Technical Elective	2