

# BS in Engineering Curriculum – ELEC Concentration

TIER III: Math ACT of 25 or higher/Math RSAT of 590 or higher

Freshman Fall Semester			Freshman Spring Semester		
MATH 115	Precalculus	3	MATH 122	Calculus I	4
<b>ENGR 100</b>	<b>Freshman Seminar*</b>	<b>1</b>	BIOL 111	Basic Biology	4
<b>ENGR 120</b>	<b>Foundations of Engineering Design I*</b>	<b>3</b>	<b>ENGR 121</b>	<b>Foundations of Engineering Design II*</b>	<b>3</b>
ENGL 101	Academic Writing	3	ENGL 102	Academic Writing & Literature	3
CHEM 111	General Chemistry I	4	CHEM 113	General Chemistry II	4
			CUC 100	Connections	0.5
<b>Semester Total:</b>		<b>14.0</b>	<b>Semester Total:</b>		<b>18.5</b>

Sophomore Fall Semester			Sophomore Spring Semester		
Math 223	Calculus II	4	MATH 224	Calculus III	4
PHYS 251	Fundamentals of Physics I	4	<b>ENGR 300</b>	<b>Engineering Economics</b>	<b>3</b>
<b>ENGR 220</b>	<b>Statics &amp; Strength of Materials</b>	<b>3</b>	PHYS 252	Fundamentals of Physics II	4
ECON 201	Microeconomics	3	<b>ENGR 260</b>	<b>Electrical Circuits*</b>	<b>4</b>
ENGL 2xx	Literature	3	PE 185	Lifetime Wellness	2
CUC 200	Connections	0.5			
<b>Semester Total:</b>		<b>17.5</b>	<b>Semester Total:</b>		<b>17.0</b>

Junior Fall Semester			Junior Spring Semester		
MATH 310	Differential Equations and Linear Algebra	4	<b>ENGR 320</b>	<b>Fluids*</b>	<b>3</b>
<b>ELEC 325</b>	<b>Embedded Systems*</b>	<b>4</b>	<b>ELEC 350</b>	<b>Electromagnetic Theory*</b>	<b>4</b>
<b>ENGR 310</b>	<b>Thermodynamics*</b>	<b>3</b>	<b>ELEC 365</b>	<b>Linear Systems</b>	<b>4</b>
ENGL 305	Technical Writing and Presentations	3	<b>ELEC 395</b>	<b>Digital System Design*</b>	<b>3</b>
<b>ELEC 265</b>	<b>Electronics*</b>	<b>4</b>	CHRS 125	Introduction to Christianity	3
<b>Semester Total:</b>		<b>18.0</b>	<b>Semester Total:</b>		<b>17.0</b>

Senior Fall Semester			Senior Spring Semester		
<b>ENGR 491</b>	<b>Senior Design I</b>	<b>4</b>	<b>ENGR 492</b>	<b>Senior Design II</b>	<b>2</b>
HUM/FINE ARTS	Elective	3	<b>ENGR 460</b>	<b>Statistical Methods for Engineers</b>	<b>3</b>
HIST 111 or 112	Western Civilization 1 or 2	3	ART 131, MUSIC 131 or THEA 131	Fine Arts	3
<b>ELEC 420</b>	<b>Controls and Communications</b>	<b>4</b>	HUM/FINE ARTS or SOC/BEH SCI	Elective	3
<b>ELEC 435</b>	<b>Digital Signal Processing*</b>	<b>3</b>	<b>ELEC 440</b>	<b>Automation*</b>	<b>3</b>
			<b>ELEC 480</b>	<b>Topics in Electrical Engineering*</b>	<b>3</b>
<b>Semester Total:</b>		<b>17.0</b>	<b>Semester Total:</b>		<b>17.0</b>
					<b>Degree Total</b>
					<b>136</b>

# **BS in Engineering Curriculum – ELEC Concentration**

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Total Math and Science Hours: 39 (includes Statistics for Engineers but not Precalculus)

Total Engineering Hours: 61 (includes Engineering Economics)

## ABET Requirements

Math and Basic Science: minimum of 30 semester credit hours

Engineering topics: minimum of 45 semester credit hours

## LEGEND:

**BOLD-FACED FONT** – designates a course taught by the School of Engineering

**BLUE BOX** – indicates a course taken by all engineering students

**\*** - indicates class-lab