

Updated: 6/24/2024

## **School of Engineering & Technology**

## **B.S. Electrical Engineering**

Freshman	(1st) Year - Fall Semester	<b>2024</b> Fre	eshman	(1st) Year - Spring Semester	2025
MATH-151	Calculus I (Every)	4 MA	ATH-152	Calculus II (Every)	4
ENGL-110	First-Year Composition I (Every)	3 <b>EN</b> 0	GL-111	First-Year Composition II (Every)	3
EGNR-101	Intro. to Engineering (Fall)	2 <b>EG</b> I	NR-140	Linear Algebra Num. App. for Eng. (Every)	2
CHEM-115	, , , , , , , , , , , , , , , , , , , ,	5 <b>EG</b> I	EE-125	Digital Fundamentals (Spring)	4
	Social Science Elective	3		Social Science Elective	3
		17			16
Sophmore	(2nd) Year - Fall Semester	2025 So <sub>l</sub>	phmore	(2nd) Year - Spring Semester	2026
MATH-251	. ,,		ATH-310	Differential Equations (Every)	3
PHYS-231	Applied Physics for Eng. and Sci. I (Fall)		YS-232	App. Physics for Eng. and Sci. II (Spring)	4
EGEE-250	Microcontroller Fundamentals (Fall)		NR-265	C Programming (Every)	3
EGEE-280	Intro. to Signal Processing (Fall)	4 EGI	EE-210	Circuit Analysis (Every)	4
				Humanities Elective	3
		16			17
Junior (3rd) Year - Fall Semester 2026		2026 Jur	nior (3rd	l) Year - Spring Semester	2027
MATH-308	Probability and Math. Statistics (Fall)	3 <b>EG</b> I	NR-346	Prob. and Stats Lab for Eng. (Spring)	1
EGNR-340	Numerical Methods for Eng. (Every)	1 EGI	EE-345	Fund. of Eng. Electromagnet. (Odd Spring)	3
EGEE-310	Network Analysis (Even Fall)	4 EGI	EM-220	Statics (Every)	3
EGEE-370	Electronic Devices (Fall)	4		Concentration/Technical Elective	3
	Concentration/Technical Elective	3		Communication Elective Cultural Diversity Elective	3 3
		15		Calculation Diversity Elective	16
Senior (4tl	n) Year - Fall Semester	2027 Ser	nior (4th	n) Year - Spring Semester	2028
Senior (4tl	h) Year - Fall Semester Engineering Design Project I (Fall)		nior (4th NR-495*	n) Year - Spring Semester Engineering Design Project II (Spring)	<b>2028</b>
		3 EGI			
EGNR-491*	Engineering Design Project I (Fall)	3 EGI	NR-495*	Engineering Design Project II (Spring)	3
EGNR-491* EGRS-460	Engineering Design Project I (Fall) Control Systems (Fall)	3 EGI 4 EGI	NR-495*	Engineering Design Project II (Spring) Power Electronics (Even Spring)	3 4
EGNR-491* EGRS-460	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall)	3 EGI 4 EGI 4	NR-495*	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective	3 4 4
EGNR-491* EGRS-460 EGEE-330	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall)	3 EGI 4 EGI 4 3	NR-495*	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective	3 4 4 3
EGNR-491* EGRS-460 EGEE-330	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective	3 EGI 4 EGI 4 3	NR-495* EE-475	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:	3 4 4 3 14 125
EGNR-491* EGRS-460 EGEE-330  Bolded co	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the	3 EGI 4 EGI 4 3 14 se degree	NR-495* EE-475 botics &	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits: Automation Concentration	3 4 4 3 14 125
EGNR-491* EGRS-460 EGEE-330  Bolded co	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the	3 EGI 4 EGI 4 3 14 se degree Rol	NR-495* EE-475 botics & .	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every)	3 4 4 3 14 125 13
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher	3 EGI 4 EGI 4 3  14  14  Re degree  Rol EGI EGI	NR-495* EE-475 botics & . RS-381 RS-385	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring)	3 4 4 3 14 125 13 3
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Tec CSCI EGEE EGEM	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320	3 EGI 4 EGI 4 3  14  14  Re degree  Roll EGI EGI	botics & . RS-381 RS-385 RS-430	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall)	3 4 4 3 14 125 13 1 3 4
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher	3 EGI 4 EGI 4 3  14  e degree  Rol EGI EGI EGI	NR-495* EE-475 botics & . RS-381 RS-385	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring)	3 4 4 3 14 125 13 3
EGNR-491* EGRS-460 EGEE-330  Bolded con General Tec CSCI EGEE EGEM EGME	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher	3 EGI 4 EGI 4 3  14  e degree  Rol EGI EGI EGI	botics & . RS-381 RS-385 RS-430 RS-435	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall)	3 4 4 3 14 125 13 1 3 4 2
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE EGEM EGME EGNR	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261	3 EGI 4 EGI 4 3  14  e degree  Rol EGI EGI EGI	botics & . RS-381 RS-385 RS-430 RS-435	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every)	3 4 4 3 14 125 13 1 3 4 2 1
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE EGEM EGME EGNR EGNR EGRS MATH	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261 235, 325, 365, 372, 375, 461	3 EGI 4 EGI 4 3  14  14  Re degree  Rol EGI EGI EGI EGI	botics & . RS-381 RS-385 RS-430 RS-435 RS-481	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every)	3 4 4 3 14 125 13 1 3 4 2 1
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE EGEM EGME EGNR EGNR EGRS MATH	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261 235, 325, 365, 372, 375, 461 215 or higher	3 EGI 4 EGI 4 3 14 se degree  Rol EGI EGI EGI EGI EGI	botics & . RS-381 RS-385 RS-430 RS-435 RS-481	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every) Technical Elective	3 4 4 3 14 125 13 4 2 1 2
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE EGEM EGME EGNR EGNR EGRS MATH	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261 235, 325, 365, 372, 375, 461 215 or higher	3 EGI 4 EGI 4 3  14  14  1e degree  Roll EGI EGI EGI EGI EGI EGI	botics & . RS-381 RS-385 RS-430 RS-435 RS-481	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every) Technical Elective	3 4 4 3 14 125 13 4 2 1 13
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE EGEM EGME EGNR EGNR EGRS MATH Any course	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261 235, 325, 365, 372, 375, 461 215 or higher	3 EGI 4 EGI 4 3  14  14  Re degree  Role EGI EGI EGI EGI EGI EGI EGI	botics & Botics & RS-381 RS-385 RS-430 RS-435 RS-481 gital Syste	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every) Technical Elective  ems Concentration Digital Design (Even Fall)	3 4 4 3 14 125 13 4 2 13 4 4
EGNR-491* EGRS-460 EGEE-330  Bolded cod General Ted CSCI EGEE EGEM EGME EGNR EGNR EGRS MATH Any course	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261 235, 325, 365, 372, 375, 461 215 or higher from concentrations	3 EGI 4 EGI 4 3  14  14  Re degree  Role EGI EGI EGI EGI EGI EGI EGI	botics & EE-475  Botics & RS-381 RS-385 RS-430 RS-435 RS-481  gital Syste EE-320 EE-355	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every) Technical Elective  ems Concentration Digital Design (Even Fall) Microcontroller Systems (Even Spring)	3 4 4 3 14 125 13 4 2 13 4 4 4
EGNR-491* EGRS-460 EGEE-330  Bolded con General Ten CSCI EGEE EGEM EGME EGNR EGRS MATH Any course  *Senior Sec Industria Co-O	Engineering Design Project I (Fall) Control Systems (Fall) Electro-Mechanical Systems (Odd Fall) Concentration/Technical Elective  urses require a grade of C or better for the chnical Electives (13 credits minimum) 265 320 or higher 320 225 or higher 261 235, 325, 365, 372, 375, 461 215 or higher from concentrations	3 EGI 4 EGI 4 3  14  e degree  Roll EGI EGI EGI EGI EGI EGI EGI	botics & EE-475  Botics & RS-381 RS-385 RS-430 RS-435 RS-481  gital Syste EE-320 EE-355	Engineering Design Project II (Spring) Power Electronics (Even Spring) Concentration/Technical Elective Humanities Elective  Minimum Total Credits:  Automation Concentration Robotics Technology Lab (Every) Robotics Engineering (Spring) Sys. Int. and Machine Vision (Fall) Automated Manufacturing Sys. (Spring) Manufacturing Automation Lab (Every) Technical Elective  ems Concentration Digital Design (Even Fall) Microcontroller Systems (Even Spring) Digital Signal Processing (Odd Spring)	14 125 13 1 3 4 2 1 2 1 3 4 4 3