



**SAMPLE CAREER DEGREE MAP**  
**Electrical Engineering BS**  
**2024-Present | Total Credits Required: 133**

Year One - First Semester Academic Program →		
Course Number & Title	Min. Grade	Cr.
ENG 111 ENGLISH COMPOSITION		3
MTH 231 ANALYTIC GEOMETRY & CALC. I	C	3
MTH 229 CALCULUS COMPUTER LAB		1
PHY 120 GENERAL PHYSICS I		3
PHY 121 GENERAL PHYSICS I LAB		1
ENGR 100 INTRO TO ENGINEERING		2
ENGR 136 COMPUTER-AIDED ENGR.		2
ELECTIVE		2
<b>Total Credits:</b>		<b>17</b>

← Year One - First Semester Career Readiness	
Recommended Career Milestones	Done
Log in to your Handshake Account available through Career Services	
Create a Draft Resume or Start Building a Basic Resume	
Join a Student Club	
Attend Engineering Speaker Events	

Year One - Second Semester Academic Program →		
Course Number & Title	Min. Grade	Cr.
ENG 151 INTRO TO COLLEGE WRITING		3
MTH 232 CALCULUS II	C	3
PHY 160 GENERAL PHYSICS I		3
PHY 161 GENERAL PHYSICS I LAB		1
ENGR 220 INTRO TO COMPUTER ENG.		4
CSC 270 INTRO TO SCIENTIFIC COMP.	C	4
<b>Total Credits:</b>		<b>18</b>

← Year One - Second Semester Career Readiness	
Recommended Career Milestones	Done
Create a LinkedIn Account to start connecting with classmates and professors	
Explore Career Options for Engineering Science Majors through O*Net	
Attend Career Center for Professional Development Events and Internship Fairs	
Create a Draft Cover Letter	

Year Two - First Semester Academic Program →		
Course Number & Title	Min. Grade	Cr.
MTH 233 CALCULUS III		3
ENGR 221 DIGITAL ELECTRONICS LAB		2
ENGR 241 ELECT. & ELECTRON. CIRC.		4
ENGR 310 THERMODYNAMICS		4
POL 103 OR ANY WORLD CULTURES & GLOBAL ISSUES		3
<b>Total Credits:</b>		<b>16</b>

← Year Two - First Semester Career Readiness	
Recommended Career Milestones	Done
Develop a Network of Contacts Through LinkedIn	
Update Your Resume to include certifications	
Find a Mentor through the CSI Alumni Mentorship Program You Can Check in With Periodically or Shadow in the Field	
Start Your Internship Search	
Develop a Network of Contacts Through LinkedIn	

Year Two - Second Semester Academic Program →		
Course Number & Title	Min. Grade	Cr.
ENGR 249 BASIC MEASUREMENTS LAB		2
MTH 330 APPLIED MATH. ANALYSIS I		4
MTH 311 PROB. THEORY & INTRO MATH STATS		4
PHY 240 WAVES & MODERN PHYSICS		3
CHM 141 GENERAL CHEMISTRY I		3
CHM 121 GENERAL CHEMISTRY I LAB		1
<b>Total Credits:</b>		<b>17</b>

← Year Two - Second Semester Career Readiness	
Recommended Career Milestones	Done
Join a Student Professional Organization	
Use LinkedIn to Start Marketing Yourself and Building Professional Relationships	
Attend Basic Interview Workshops	
Identify Skills That You Need to Build Outside of the Classroom - Develop Proficiency in CAD Software	
Develop a customized cover letter to be adapted for applications	



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Year Three - First Semester <i>Academic Program</i> →		
Course Number & Title	Min. Grade	Cr.
ELE 322 SIGNALS & NOISE		3
ELE 331 DIGITAL SIGNAL PROCESSING		4
ELE 336 COMPUTER-AIDED ENGINEERING		4
ELE 345 SOLID STATE DEVICE FUND.		3
ELE 362 MICROCONTROLLERS		4
<b>Total Credits:</b>		<b>18</b>

← Year Three - First Semester <i>Career Readiness</i>	
Recommended Career Milestones	Done
Refine Your Resume to Include Project Achievements and New Skills Gained	
Continue to Apply for Internships with Engineering Firms or Governmental Agencies	
Research Graduate School or Other Post-Graduate Opportunities	
Practice Advanced Interview Techniques	

Year Three - Second Semester <i>Academic Program</i> →		
Course Number & Title	Min. Grade	Cr.
ELE 342 ELECTRICAL & ELECTRIC CIRC. II		3
ELE 439 SYSTEMS LAB		2
ELE 371 SYSTEMS ANALYSIS		3
ELE 420 ANALOG & DIGITAL SYSTEMS DES.		4
US EXPERIENCE IN ITS DIVERSITY		3
<b>Total Credits:</b>		<b>15</b>

← Year Three - Second Semester <i>Career Readiness</i>	
Recommended Career Milestones	Done
Take Leadership Roles in Clubs and Organizations	
Attend Career Center for Professional Development Events and Internship Fairs	
Explore Career Options and Tasks with Virtual Work Experiences such as Forage Gain Practical Experience and Industry-Specific Skills	
Create an Elevator Pitch	

Year Four - First Semester <i>Academic Program</i> →		
Course Number & Title	Min. Grade	Cr.
ELE 491 ADV. ENGINEERING DESIGN I		2
ELE 356 THEORY OF ELECTROMAG. RAD.		4
ELE 400-LEVEL ADVANCED ELECTIVE		4
POL 251 INT. POLITICAL ECO OR ECO 285 ECO FOR ENGINEERS		4
INDIVIDUAL & SOCIETY		3
<b>Total Credits:</b>		<b>17</b>

← Year Four - First Semester <i>Career Readiness</i>	
Recommended Career Milestones	Done
Meet with a Career Advisor for Job Search Preparation	
Use LinkedIn to Let Contacts Know You Are Looking for Employment	
If Appropriate, Complete the Process of Applying to Graduate School	
Secure letters of recommendation from professors or supervisors	

Year Four - Second Semester <i>Academic Program</i> →		
Course Number & Title	Min. Grade	Cr.
CREATIVE EXPRESSION		3
ELE 415 OR ELE 436 OR ELE 471		3
ELE 432 DIGITAL & ANALOG COMM. SYS.		3
ELE 492 ADV. ENGINEERING DESIGN II		2
ELE 400-LEVEL ADVANCED TECHNICAL ELECTIVE		4
<b>Total Credits:</b>		<b>15</b>

← Year Four - Second Semester <i>Career Readiness</i>	
Recommended Career Milestones	Done
Actively Apply for Jobs!	
Attend Networking Events and Career Fairs	
Final Interview Preparation – Meet with Career Advisor to schedule Interview Practice Sessions	
Participate in Senior Showcase Events	