

**ACADEMIC ROADMAP**  
**Electrical Engineering Technology – Electronics – BS (2018)**

**Freshman Year**

<b>FIRST SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
*Applied Calculus I or Calculus I and Using Technology to Explore Calculus I	MAT 126 or MAT 161 and MAT 163	
General Physics I or University Physics I	PHY 107 or PHY 111	
Essentials of Electrical Engineering Technology	ENT 104	
General Education course		
College Writing I	CWP 101	

<b>SECOND SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
*Applied Calculus II or Calculus II and Using Technology to Explore Calculus II	MAT 127 or MAT 162 and 164	
General Physics II or University Physics II	PHY 108 or PHY 112	
General Chemistry I or Fundamentals of Chemistry I	CHE 101 or CHE 111	
General Education course		
College Writing II	CWP 102	

**Sophomore Year**

<b>THIRD SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
Electric Circuits Analysis I	ENT 330	
Mechanics I	ENT 301	
Analytical Methods for Technologists	ENT 300	
Computer-Based Information Processing	CIS 151	
General Education course		

<b>FOURTH SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
*Introductory Probability and Statistics or Differential Equations	MAT 311 or MAT 315	
Electrical Circuits Analysis II	ENT 332	
Electronics	ENT 341	
Digital Systems	ENT 345	
Elective course		

Notes:

**Junior Year**

<b>FIFTH SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
Microcontrollers	ENT 346	
Electric Machines	ENT 371	
** General Chemistry II or Fundamentals of Chemistry II and Laboratory for Fundamentals of Chemistry II	CHE 102 or CHE 112 and CHE 114	
Elective course		
General Education course		

<b>SIXTH SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
Advanced Circuit Analysis	ENT 342	
Analog Circuits Analysis	ENT 351	
Elective course		
Elective course		
General Education course		

Notes:

**Senior Year**

<b>SEVENTH SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
Communication Transmission Technology	ENT 441	
Control Systems I	ENT 461	
Electrical Design I	ENT 465	
Elective course		
General Education course		

<b>EIGHTH SEMESTER</b>		
<b>Course Title</b>	<b>Catalog Number</b>	
Analog System Design and Analysis	ENT 452	
RF and Microwave Communications	ENT 442	
Control Systems II	ENT 462	
Electrical Design II	ENT 466	
Elective course		

Notes:

\*Two options in mathematics: Option 1: MAT 126, MAT 127, MAT 311. Option 2: MAT 161 and MAT 163, MAT 162 and MAT164, and MAT 315.

\*\*Instead of CHE 102 or CHE 112, a science course with a lab by faculty approval can be substituted.