

Course Name	Course Number	Prerequisites	Coreqs	Course Units
Fall Freshman Year				
General Chemistry I	CHE201	none	MAT127 b/c same reqs	1.0
Fundamentals of Engineering Design (or CS220)	ENG144	none	none	1.0
Introduction to Engineering	ENG095	none	none	0.0
Engineering Seminar I	ENG091	none	none	0.0
First-Year Writing (if not exempt)*	FYW102	none	none	(1.0)
Calculus A	MAT127	see note on freshmen math placement below	none	1.0
General Physics I	PHY201	none	MAT125 or MAT127	1.0
Spring Freshman Year				
Computer Science I (or ENG144)	CSC220	none	none	1.0
Engineering Seminar II	ENG092	none	none	0.0
Calculus B	MAT128	MAT127	none	1.0
General Physics II	PHY202	PHY201 AND MAT 127	MAT128 (suggest)	1.0
Creative Design	TST161	none	none	1.0
First Year Seminar*	FYS16X	none	none	1.0
Fall Sophomore Year				
Modern Physics	PHY321	MAT127 AND PHY202	one	1.0
Principles of Microeconomics	ECO101	MAT095 OR MAT096	none	1.0
Circuits Analysis	ENG212	PHY202 (\geq C-)	ENG272	1.0
Circuits Analysis Laboratory	ENG214	none	ENG212	0.5
Adv. Engineering Mathematics I	ENG272	MAT128	none	1.0
Digital Circuits and Microprocessors	ENG312	none	CSC220	1.0
Spring Sophomore Year				
Discrete Structures	CSC270	CSC220 (\geq C) OR CSC230 (\geq C) AND MAT127 (\geq C)	none	1.0
Electronics	ELC251	ENG212 AND ENG272	none	1.0
Systems and Signals	ELC321	ENG272	ENG212	1.0
Electronics Lab	ELC333	none	ELC251	0.5
Multivariable Calculus	MAT229	MAT128	none	1.0
Society, Ethics and Technology	IDS252	none	none	1.0
Fall Junior Year				
Communication Systems	ELC341	ELC251 AND ELC321	none	1.0
Microcomputer Systems (Lab)	ELC343	none	ELC411	0.5
Engineering Seminar III	ENG093	none	none	0.0
Embedded Systems	ELC411	ELC251 AND ELC312	none	1.0
Computer Architecture and Org.	ELC451	ENG312		1.0
Computer Engineering Laboratory I	ELC363	none	ELC451	0.5

Technical Elective: ECE Discipline or Engineering (by advisement)		At least ELC251 AND ELC321	At least ELC451	1.0	
Spring Junior Year					
Engineering Electromagnetics	ELC361	MAT229, ENG212, AND ENG272	none	1.0	
Wireless and Communications Lab	ELC373	ELC341	ELC361	0.5	
Engineering Seminar IV	ENG094	none	none	0.0	
Control Systems	ENG352	ENG212 AND ENG272	none	1.0	
Control Systems Laboratory	ENG354	none	ENG352	0.5	
Systems Engineering	ENG348	ENG212 OR ENG222	none	0.5	
Technical Elective: ECE Discipline or Engineering (by advisement)		At least ELC251 AND ELC321	At least ELC451	1.0	
Fall Senior Year					
Digital Signal Processing	ELC423	ENG312 AND ELC321	none	1.0	
Signal Processing Lab	ELC433	none	ELC423	0.5	
Engineering Economy	ENG372	MAT128 AND ECO101	none	1.0	
Senior Project I	ELC495	ENG348, ELC411, AND ENG352	none	0.5	
Senior Professional Seminar	ENG099	none	none	0.0	
Technical Elective: ECE Discipline or Engineering (by advisement)		At least ELC251 AND ELC321	At least ELC451	1.0	
Liberal Learning Elective (by advisement)		varies	varies	1.0	
Spring Senior Year					
Mathematics Elective*	ENG342 or STA215	varies	varies	1.0	
Electronics II	ELC383	ELC251	none	1.0	
Senior Project II	ELC496	ELC495	none	0.5	
Technical Elective: ECE Discipline or Engineering (by advisement)		At least ELC251 AND ELC321	At least ELC451	1.0	
Liberal Learning Elective (by advisement)		varies	varies	1.0	
<p><i>39 course units are required for the degree. Transfer courses that are accepted as equivalent to TCNJ courses may yield a fractional course unit, even though the course content is satisfied. In this case, students need to complete additional coursework to meet the 39 course unit requirement.</i></p>				<p>Total</p>	<p>39.0</p>