

| Course Name | Course Number (w/ Links) | Prerequisites | Coreqs | Course Units |
|--|--------------------------|---|-------------------------|--------------|
| Fall Freshman Year | | | | |
| General Chemistry I | CHE201 | none | MAT127 b/c same reqs | 1.0 |
| Fundamentals of Engineering Design (or CSC220) | 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 exempted)* | 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 |
| First Year Seminar* | FYS16X | none | none | 1.0 |
| Creative Design | TST161 | none | none | 1.0 |
| Fall Sophomore Year | | | | |
| Modern Physics | PHY321 | MAT127 AND PHY202 | one | 1.0 |
| Computer Science II | CSC230 | CSC220 (\geq C) | 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 |
| Principles of Microeconomics | ECO101 | MAT095 OR MAT096 | none | 1.0 |
| Fall Junior Year | | | | |
| Software Engineering | CSC415 | CSC220 (\geq C) | none | 1.0 |
| Microcomputer Systems (Lab) | ELC343 | none | ELC411 | 0.5 |
| Engineering Seminar III | ENG093 | none | none | 0.0 |
| Computer Architecture and Org. | ELC451 | ENG312 | | 1.0 |
| Computer Engineering Laboratory I | ELC363 | none | ELC451 | 0.5 |

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|--|------------------|--|-----------------|-------------|
| Embedded Systems | ELC411 | ELC251 AND ELC312 | none | 1.0 |
| Technical Elective: ECE Discipline or Engineering (by advisement) | | At least ELC251 AND ELC321 | At least ELC451 | 1.0 |
| Spring Junior Year | | | | |
| Engineering Seminar IV | ENG094 | none | none | 0.0 |
| Mathematics Elective* | ENG342 or STA215 | varies | varies | 1.0 |
| Control Systems | ENG352 | ENG212 AND ENG272 | none | 1.0 |
| Control Systems Laboratory | ENG354 | none | ENG352 | 0.5 |
| Engineering Economy | ENG372 | MAT128 AND ECO101 | none | 1.0 |
| Technical Elective: ECE Discipline or Engineering (by advisement) | | At least ELC251 AND ELC321 | At least ELC451 | 1.0 |
| Systems Engineering | ENG348 | ENG212 OR ENG222 | none | 0.5 |
| Fall Senior Year | | | | |
| Digital Signal Processing | ELC423 | ENG312 AND ELC321 | none | 1.0 |
| Signal Processing Lab | ELC433 | none | ELC423 | 0.5 |
| Society, Ethics and Technology | IDS252 | none | 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) | | none | none | 1.0 |
| Spring Senior Year | | | | |
| Operating Systems | CSC345 | MAT127, CSC230, ELC451, AND CSC270 (>=C) | none | 1.0 |
| Computer Engineering Laboratory II | ELC463 | ELC363 | none | 0.5 |
| 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) | | none | none | 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> | | | Total | 39.0 |