

Transfer Planning Worksheet 2025-2026



**NORTH CENTRAL
COLLEGE 1861**

Student Name: _____ North Central ID# _____ College Representative: _____ Date: _____

Electrical Engineering, B.S.

Electrical Engineering offers a mix of circuit design, software development, communication systems and power electronics. Our graduates are well prepared for employment in a wide range of companies and research labs.

Major Requirements

A minimum of 45 credit hours of Engineering coursework to include:

| Core Courses | | | |
|---------------------------------------------------|------------------------------------------------|--------|-------|
| Course Name | Equivalent | Credit | Grade |
| CSCE 160 - Introduction to Computer Programming | CIS 216, CSC 121, CSC 122, or CSC 214 @ Harper | | |
| CSCE 220 - Computer Organization and Design | CSC 217 @ Harper | | |
| ELEC 150 - Introduction to Electrical Engineering | EGR 110 @ Harper | | |
| ELEC 200 - Digital Logic I | EGR 270 @ Harper | | |
| ELEC 250 - Circuit Analysis I | EGR 265 @ Harper | | |
| ELEC 351 - Circuit Analysis II | | | |
| ELEC 280 - Microcontrollers | | | |
| ELEC 310 - Analog and Digital Signals | | | |
| ELEC 330 - Motors and Actuators | | | |
| ELEC 460 - Electronic Controls | | | |
| ENGR 100 - Introduction to Engineering | EGR 100 @ Harper | | |
| ENGR 110 - The Engineering Method | | | |
| ENGR 120 - Engineering Calculations | | | |
| ENGR 400 - Independent Project I | | | |
| ENGR 450 - Capstone I | | | |

Required Support Courses for the B.S. Degree

A minimum of 30 credit hours of Mathematics and Science coursework to include:

| Course Name | Equivalent | Credit | Grade |
|-----------------------------------------------------------|------------------|--------|-------|
| MATH 151 - Calculus I * | MTH 200 @ Harper | | |
| MATH 152 - Calculus II | MTH 201 @ Harper | | |
| MATH 253 - Calculus III | MTH 202 @ Harper | | |
| MATH 255 - Linear Algebra and Differential Equation | | | |
| ENGR 431 - Industrial Metrology and Statistics | | | |
| PHYS 161 - Physics I: Mechanics and Heat | PHY 201 @ Harper | | |
| PHYS 162 - Physics II: Electromagnetism, Waves and Optics | PHY 202 @ Harper | | |
| PHYS 266 - Physics III: Quantum Physics | | | |
| PHYS 320 - Physics of Solids | | | |

Notes:

If students do not meet the minimum Mathematics and Science requirements, additional coursework may need to be taken.

Courses below MATH 151 do not apply to the required credit hours in Mathematics and Science.

* Students who do not place into MATH 151 must successfully complete the course prerequisite, MATH 140.