

# Assistive Technology Minor 2023-2024 Curriculum Chart

\*This minor cannot be combined with the Assistive Tech concentration of the former Bioengineering major or the Robotics Engineering BS\*

\*ECE 121, ECE 141, and ECE 167 cannot also be used to satisfy Electrical Engineering B.S. electives\*

## Mathematics & Statistics

**MATH 19A**  
Calculus

**AM 10**  
Math Methods for  
Engineers I

OR

**MATH 21**  
Linear Algebra

**MATH 19B**  
Calculus

**AM 20**  
Math Methods for  
Engineers II

OR

**MATH 24**  
Ordinary Differential  
Equations

## Science

**PHYS 5A/L**  
Intro to Physics I/Lab

**PHYS 5C/N**  
Intro to Physics III/Lab

**CHEM 1A**  
General Chemistry

**BIOL 20A**  
Cell & Molecular Biology

**BIOE 20B**  
Development &  
Physiology

**METX 135/L**  
Functional Anatomy/Lab

## Computer Engineering

**CSE 12 (7 units)**  
Computer Systems &  
Assembly Language/Lab  
[Prerequisite(s): CSE 20, or CSE  
30, or BME 160, or equivalent]

**ECE 13 (7 units)**  
Computer Systems & C  
Programming

**CSE 100/L**  
Logic Design/Lab

## Electronics

**ECE 101/L**  
Intro to Electronic  
Circuits/Lab

**ECE 118 (10 units)**  
Mechatronics

**ECE 103**  
Signals & Systems

**ECE 167\* (7 units)**  
Sensing & Sensor  
Technologies

**ECE 121  
(7 units)**  
Microcontroller  
System Design

OR

**ECE 141\***  
Feedback Control  
Systems

\* Additional pre-requisites required

# Assistive Technology Minor

## 2022-2023 Curriculum Chart

\*This major cannot be combined with the Assistive Tech concentration of the former Bioengineering major or the Robotics Engineering BS\*

\*ECE 121, ECE 141, and ECE 167 cannot also be used to satisfy Electrical Engineering B.S. electives\*

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

The assistive technology minor is designed for students interested in helping people with movement disabilities. The emphasis is on designing exoskeletons and robots built on two core cross-disciplinary courses: Mechatronics(ECE 118) and Functional Anatomy (METX 135/L).

The minor requirements may satisfy the requirements of other majors or minors under the campus policy discussed under Major and Minor requirements. Because of the large number of courses required, it is most suitable for students in majors already requiring a substantial number of these courses. The minor cannot be combined with the Assistive Technology: Motor concentration of the former bioengineering major or the Robotics Engineering B.S. major. ECE 121, ECE 141, and ECE 167 cannot also be used to satisfy electrical engineering B.S. electives.