APPLIED ENGINEERING IMMERSION CURRICULUM

Applied Engineering Immersion Core Courses
- Programming for Engineers
- Embedded Systems
- Analog Electronics
- Digital Electronics
- Product Development & System Design
- Modern Manufacturing
- Mechanical Design
- Robotics & Control Systems
- Advanced Applications in Programming
- Advanced Applied Engineering Lab

Applied Engineering Career Focus Courses (3 Different Career Focus Pathways)
A. **Space Focus** – (1) Space Systems & Infrastructure, (2) Design Engineering for Space Environments, (3) Small Satellite Research & Development
B. **Biomedical Engineering Focus** – (1) Medical Devices, (2) Human Diagnostics, (3) Smart Health Applications & Technologies
C. **Electric Vehicle Technology Focus** – (1) EV Power Systems & Infrastructure, (2) EV Safety, Diagnostics & Maintenance, (3) EV Automotive Design

Curriculum Pathway (36 Credits - with the possibility for 60 Dual-Credit Hours)
- Year 1: Programming for Engineers w/Lab, Digital Electronics w/Lab, Mechanical Design w/Lab, Algebra I/Geometry Combo, Biology, World Geography, Elective (Foreign Language recommended), English I, Kinesiology
- Year 2: Analog Electronics w/Lab, Modern Manufacturing w/Lab, Advanced Applications in Programming w/Lab, Algebra II/Pre-Calculus Combo, Chemistry, World History, Elective (Foreign Language recommended), English II, Kinesiology
- Year 3: Embedded Systems w/Lab, Robotics & Control Systems w/Lab, Calculus I, Physics, U.S History, Kinesiology, English III, Advanced Applied Engineering Lab, *Applied Engineering Career Focus Course (1)*
- Year 4: Product Development & System Design w/Lab, Calculus II, Advanced Science Option, English IV, U.S. Government/Economics, Kinesiology, Advanced Applied Engineering Lab, *Applied Engineering Career Focus Course (2), Applied Engineering Career Focus Course (3)*