

Introduction to Robotics

Course Name: Introduction to Robotics

Course Number: TEC 4200

Brief Course Overview:

This is an introduction to robotics.

9-12 / CP

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In this year-long class, students will use robotics and engineering to explore the fundamentals of problem solving, program design, algorithms and programming using a high-level language. A robot is an embedded system of software and hardware. Programming and building robots applies science, technology, engineering, art and math (STEAM) concepts. It will consist of some lectures including principles of engineering, physics, electronics, mechanics, and computer programming but most of the course will focus on hands-on experimentation. Laboratory experiments will require students to build simple robots to demonstrate these principles.

Main Topics of Study:

- Drive systems
- Programming
- Torque and Gear Systems
- Grabbing and Lifting Objects
- Game Analysis

Pre-requisites : None

Course Length: Year

Meets NBPS Graduation Requirement? Yes

Included in Bright Futures GPA calculation? No

Included in NBPS GPA? Yes

NCAA Core Class? Yes

State University Core Class? No