

Name of School:

Name of Course: **Introduction to Robotics**

Instructor Information

Name:

E-mail address:

School phone number:

Web page address:

Best times to be reached:

Course Description

This “hands on” course will teach how to control a robot and other automated machines. Students will spend at least half the time with a computer writing, editing programs, and running computer robotics and automated devices. Students will also learn to control fluid powered and air-powered devices. This is a recommended course for students planning a career as an engineer or engineering technician.

District Standards and Power Benchmarks

Power Standards

1. Students will develop an understanding of the nature of engineering and robotics technologies.
2. Students will develop an understanding of engineering technology and society.
3. Students will develop abilities for a technological world in engineering.

Power Benchmarks

1. Practice general safety rules of the shop, and the safety of each machine.
2. Identify industry design and programming essentials
3. Use core concepts of robotics technology
4. Apply engineering concepts in the solution of everyday problems.
5. Discover basic mechanical systems
6. Discover basic electrical and electromechanical systems
7. Student exposure of basic hydraulic systems.
8. Student exposure to basic pneumatic systems.
9. Identify robotic applications in the manufacturing industry.
10. Identify careers in robotics related fields.

Course Information

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Course Outline/Calendar

Safety tests, lab projects and textbook assignments.

Text/Other Required Materials/Resources

Instructional Procedures & Support

Classroom Management Procedures

Be to class on time.
Have notebook & pencil every day.
Stay on task. Follow all safety rules and wear safety glasses at all times.
Treat others with respect at all times.

Assessment Plan

Grades will be given for daily performance, written quizzes, tests, projects and notebook

Grading System

A	93 and above	Firm command of knowledge domain High level of skill development
A⁻	90 - 92	Exceptional preparation for later learning
B⁺	87 - 89	Command of knowledge beyond the basic concepts of knowledge Advanced development of most skills
B	83 - 86	Has prerequisites for later learning
B⁻	80 - 82	
C⁺	77 - 79	Command of the basic concepts of knowledge Demonstrates ability to use basic skills
C	73 - 76	Lacks a few prerequisites for later learning
C⁻	70 - 72	
D⁺	67 - 69	Lacks knowledge of some fundamental ideas Some important skills not attained
D	63 - 66	Deficient in many of the prerequisites for later learning
D⁻	60 - 62	
F	59 and below	Most of the basic concepts and principles not learned Most essential skills have not been demonstrated Lacks most prerequisites needed for later learning