

Welcome to Automation & Robotics

Course Description: Robotics & Automation is a lab based, hands-on curriculum combining electrical, mechanical and engineering design principles. Students will learn to control and program robotic devices by applying science, math and technology. Rigorous study and application of electrical concepts include, but are not limited to: sources of energy, electrical safety, use and identification of basic electronic parts, sensors and actuators. Mechanical concepts will include, but are not limited to: mechanical design, three dimensional modeling, prototype development, design testing, model assembly and proper engineer documentation. Industrial automation, robotic applications and career opportunities will also be discussed.

Expectations: This is a vocational elective class that prepares students for employment. Therefore, it is expected that students will behave as if they are employed in the field. Punctuality and preparedness are essential to a business-like atmosphere. Disrespect toward others, equipment, or school property will not be tolerated. Due to the high cost of equipment in the classroom; horseplay of any type will not be permitted.

Grade Scale:

93-100% = A	80-82% = B-	67-69% = D+
90-92% = A-	77-79% = C+	63-66% = D
87-89% = B+	73-76% = C	60-62% = D-
83-86% = B	70-72% = C-	0-59% = F

Grade reports will be sent home with the student at midterm. Failing notices will also be sent. Without prior notification, a student will not receive a final failing grade.

Grade Breakdown: This course is broken into three categories: Assessments (60%), Participation (20%), Professionalism (20%).

Assessments: Assessments include but are not limited to assignments, quizzes, tests, and projects.

Participation: Daily points will be awarded to students who are on time and working each day in class. A loss of 5 points will result from an unexcused tardy. A loss of 10 points will be lost for ANY absence (excused or unexcused). For excused absences ONLY, points may be made up by attending an open lab. Participation points will be recorded at the end of each week.

Professionalism: Students are expected to act in a professional way, which means being respectful to the instructor and other class members. Unprofessional behavior will hurt you on the job and in the classroom. You will lose professionalism points by interrupting class with conversations, bringing food or beverage (other than water) near the computers, swearing, audible music, playing games, swearing, and cheating. Unlike participation points, which you earn throughout the quarter, students start the quarter with 100 professionalism points and can lose points for unprofessional behavior.

Key to Violations

C-Cell phone
D-Disruptive
F-Food or drink

I-Inappropriate Comment
M-Audible Music
N-Swearing, Teasing,

Name Calling
V-Vandalizing/Liter
W-Messy Workstation

Online Course (Moodle): In this course we will be using an online website for quizzes and tests. The site can be reached from any computer that has internet access. The link can be found at: **moodle.bitworkz.com**

Username: first.lastname

Password: Robot1cs!

Policies: All classroom activities, procedures, instruction and discipline will be in accordance with posted, published, and instructed school and district policies, and state and federal laws (see student handbook, office, and posted notice.) The following are a few additional class policies and guidelines:

Intervention: The following is a policy that is based on intervention rather than remediation to help the students be successful in this course.

Red Flag	Intervention
Grade point average of 79% or below after unit test	Conference with teacher to develop a plan to get back on track. Assigned online simulation or tutorial.
Grade point average of 79% or below two consecutive times	Mandatory attendance at acceleration/remediation sessions (open labs); contact home.
Test grade of 79% or below	Mandatory retake.
Late Assignments	Mandatory attendance at acceleration/remediation sessions (open labs).

Resubmissions/Retakes: Any student may resubmit an assignment or retake a quiz/test in order to receive a higher grade. This will need to be done on the student's own time and the retake must be done within a week of the original due date.

Make-up Work: Students are responsible to find out what they missed in class. If a student is absent on the day a long-term assignment (ones where students have two or more weeks to work on) is due, the student will need to turn in the assignment the day they return.

Late Work: Adequate class-time will be given to complete assignments. (Homework is rare.) If a student needs to turn in an assignment late, the student is also required to attend an open lab.

Extra Credit: There will be set times to receive extra credit each quarter.

Parents/Guardians,

Please review and discuss the disclosure document with our student and return this portion with your signature.

I have read, understand, and discussed policies of Technical Design 1.

Student Name _____ Period _____ Date _____

Student Signature _____

Parent/Guardian Signature _____

Parent/Guardian Name _____

Parent/Guardian E-Mail _____

Parent/Guardian Phone _____

Preferred method of teacher contact: Phone E-mail

Comments _____
