

GATEWAY TO TECHNOLOGY

Automation and Robotics [AR]

Mr. DeBoer

Course Description

Automation and Robotics [AR] allows students to work collaboratively throughout the Design Process to complete a series of design challenges with a focus on workflow, creativity, and opportunity. The communication and application of engineering principles is facilitated through a focused STEM curriculum.

In addition, students will follow the continuing evolution of automation and robotics from its origin. This is accomplished through research and application of mechanical, electrical, digital, and automated systems within the classroom. Students will design and create functional prototypes of these systems using the VEX Robotics platform.

Course Lessons

The course curriculum is divided into three main lessons; "What is Automation and Robotics?," "Mechanical Systems," and "Automated Systems."

Materials

Optional supplies include earbuds, USB drive, colored pencils, sharpies, dry erase markers, scotch tape, and post-it notes.

Acceptable Use of Technology

Students are expected to abide by all school and district policies and procedures regarding the use of technology.

Grading Categories

Course grading is divided into two main categories, Major (50%) and Minor (50%). The Major category is comprised primarily of Design Projects. The Minor category includes Bell Work, Engineering Notebook, Classwork, and Quizzes.

Homework

Homework and major assignments will be updated on our Google Classroom. Parents are also invited to keep updated on assignments by joining our class on Google Classroom. To join, please send an email to: bdeboer@greenville.k12.sc.us.

Late or Incomplete Assignments

The expectation is that all assignments are completed to a level of proficiency and submitted on time. If an assignment is submitted, but proficiency is not demonstrated, the assignment will be returned to the student. The assignment must then be redone and resubmitted until proficiency is achieved. The assignment will not receive a grade until proficiency is earned. Any assignments that are graded as NHI can be completed and submitted for credit prior to the end of the grading quarter.

Absentee Policy

It is the student's responsibility to check with the teacher to determine if any assignments were completed and submitted in their absence. Students are required to complete missing assignments on their own time, outside of the school day. Students have five (5) days to submit any assignments missed during an absence. If a quiz was administered on a day a student was absent, the quiz must be completed within two (2) days of the student's return to school. If a previously scheduled assignment was due the day of a student's absence, the assignment is due on the day the student returns to school.

Plagiarism

Plagiarism is taking ideas, writing, and the work of another and passing it off as your own. Plagiarism includes turning in another's work as one's own, copying work from a friend before class (or while in another class), including a source but failing to cite it, copying an author's exact words and passing them off as one's own. Students caught plagiarizing will be given a ROCK STEP and must redo the assignment.

Contact Information

Students, parents, and guardians are welcomed and encouraged to contact me with any questions or concerns.

Email: bdeboer@greenville.k12.sc.us

Phone: (864) 452-0363

Web: <https://sites.google.com/greenvilleschools.us/deboer>