

Innov8 Academy

Course Syllabus



Course Name: Automation and Robotics Syllabus (8th Grade)

Instructor Name: Ronnie Rumley

Contact Information: Call or email me with any questions or concerns.

- School Phone: 434-773-8397
- School Fax: 434.797.8867
- Room number: Innov8 E-110
- Email address: wrumley@mail.dps.k12.va.us
- Website:
- Planning Period/Office Hours: 1:00 -2:10

Course Description: Automation and Robotics—8th Grade

Students trace the history, development, and influence of automation and robotics. They learn about mechanical systems, energy transfer, machine automation and computer control systems. Students use a robust robotics platform to design, build, and program a solution to solve an existing problem.

Course Objectives

What Is Automation and Robotics

Mechanical Systems

Automated Systems

Supplies Needed

Pencils

Good Eraser

Notebook

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research

and ideas in their engineering notebook. Using Autodesk design software, students create a virtual image of their design and produce a portfolio to showcase their innovative solutions.

Course Objectives

What is Engineering

Design Process

Measurement

Sketching and Dimensioning Techniques

Designing for Production

Supplies Needed

Pencils

Good Eraser

Notebook

Student Evaluation:

- Student Conduct/Behavior
- (Gold) Assessments, Tests, Projects 40 %
- (Silver) Quizzes and Minor Assignments 35 %
- (Bronze) Classwork, Homework, and Participation 25 %

A = 90-100% | B = 89-80% | C = 79-70% | D = 69-60% | F = 59-0%

Student Goal:

During the school year, all students will utilize High-Quality Instructional Materials (HQIM) as delivered by the teacher to achieve an 80% pass rate in reading, math, science, and history SOL-tested courses.

Promotion Requirements:

According to Danville Public School's Promotion and Retention Policy, **K-8** student promotion shall be based upon satisfactory performance as follows:

- Students in grades K-8 who pass mathematics and English and at least one of the following: social studies or science will be promoted to the next grade.
- For students in grades 3-8, attending at least 90% of class days is required to receive course credit.

Individual student retention shall be based upon a cumulative evaluation of the following factors:

Academic Performance:

- Students in grades K-8 fail one or more of the three core subject areas.
- Students in grades K-8 consistently perform below grade level in reading and mathematics when appropriate intervention and other supports have been provided and documented.
- Students in grades 3-8 Standard of Learning assessment results in reading and mathematics at the end of grade indicate below-grade-level academic performance.
- Students in grades 3-8 do not attend 90% of the class days required to receive course credit.

Please be aware that you can keep track of your student's grades, assignments, and attendance by using your Parent Portal account. Homework is posted each week on our school webpage under the teacher's name. Please contact your student's school counselor if you need help navigating our school website, a Parent Portal activation code, or assistance accessing the Parent Portal.

Course Requirements:

- All homework should be completed as assigned.
- All students should be ready to participate in all class activities.
- All students will be expected to use appropriate classroom etiquette.
- All students are expected to be respectful, responsible, and ready to learn daily

Parent and Student Resources

- All parents are encouraged to check the Parent Portal to monitor student academic progress and attendance. The Parent Portal can be downloaded from Google Play and the App Store.
- Connect with O.T. Bonner Middle School through the following avenues:

