

ROWE MIDDLE SCHOOL

6th Grade Engineer IT

Teacher: Tricia Halonen

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[Class Website](#)

COURSE DESCRIPTION:

As a student you will be engaged in a student led, teacher facilitated class. You will be introduced and practice the skills of design thinking, building and testing prototypes and experience an introduction to robotics through projects and challenges.

COURSE STATE STANDARDS:

MS-ETSI

Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETSI-2

Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

MS-ETSI-3

Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

MS-ETSI-4

Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

OBJECTIVES:

To provide the knowledge, skills, and learning experiences in engineering design, that will make you competitive with other students as you get ready for high school, college and/or career.

COURSE OVERVIEW:

Unit 1: Game Logic

Unit 2: Thinking Like an Engineer - Design Challenges

Unit 3: Robotics Exploration

Unit 4: Independent Project

GRADING POLICY

This class uses a proficiency-based grading model, which means the majority of your grade is based on how proficient you become with the skills in the unit. The purpose of grading is to communicate your progress towards learning targets, provide information for you to self-evaluate your own progress, and offer activities for you to expand on your learning. All final grades will reflect your performance on academic work related to state and district content standards. Extra credit will not be offered in this class.

CLASSROOM EXPECTATIONS

- Honor community agreements
- Be on time
- Be prepared and ready to learn
- Be willing to take risks, make mistakes, and learn from both
- Be willing to be a team player
- Be able to communicate with others
- Be Safe, Respectful and Responsible
- Enjoy learning
- Have fun

I (student) have gone over this with my family and we understand the classroom goals/objectives and expectations.

Student Signature: _____

Parent/Guardian/Family Signature:
