



### FOUNDATIONS OF TECHNOLOGY I 2014-2015

#### Course Description:

The course is an overview of technology, which provides hands-on application of the various technical components that are being integrated into the present and future workplace. Specific activities include programming robotic functions, computer-assisted manufacturing, 2D and 3D computer-aided design/animation, product development, 2D architectural CAD with virtual walk through, structural testing activities (bridges/towers), and computer programming animation (developing cartoon animations). Students will have the opportunity to join the Technology Student Association, the First (Robotics) Organization, or both.

#### Course Content:

Robotics  
2D Architectural CAD software  
3D Engineering CAD software  
Animation software  
Structural Construction and Destructive Testing  
Engineering Problem-solving  
Manufacturing

#### Required Textbooks and/or Other Reading/Research Materials

*Numerous Engineering Design Software Programs*

#### Course Requirements:

Students will attain skill in the universal language of drafting and design by using professional CAD software. Students will operate classroom computers in a responsible, safe, and ethical manner. Students will learn various math concepts through the participation of robotic programming projects/activities. Students will operate rapid prototype equipment in a safe manner. Students are required to complete all projects, assignments and tests on or before due date. Students are expected to come to class prepared with all necessary materials. If you are absent for any reason, it is your responsibility to see your teacher for missed work. Please refer to the policy in the student handbook for timelines to make up missed work and tests. Students are expected to practice safe working habits when operating power equipment or hand tools in the construction of their scaled model homes.

#### Grade Components/Assessments:

Grades will be based on categories: Cumulative Assessments 20%, Class Participation 10%, Projects/Coursework 70%.

Each marking period is worth 40% of a student's overall grade. The final exam is worth 20% of a student's overall average:

Quarter 1	40%
Quarter 2	40%
Final	20%

Required Summer Reading/Assignments:

No summer reading/assignments are required for this course