Canyon Crest Academy: Robotics and Engineering Technology

Level of Difficulty	Estimated Homework	Prerequisites
☒Moderate ☐Difficult ☐Very Difficult	0-30 minutes	**District** None **Department** Recommendation: Exploring Computer Science or Principles of Engineering.

Course Description
Robotics and Engineering Technology is built around the fundamental understanding of the systems that make up robots and the development of workplace competencies. The main focus of the class involves solving engineering design problems.

Course Objectives and Competencies:
The following objectives will guide the curriculum:

Students will…

a) Identify, formulate solutions for, and solve engineering technology problems using engineering design processes
b) Apply knowledge of mathematics, science and technology to solve robotic engineering technology problems
c)   Function on multi-disciplinary teams
d) Communicate effectively using various forms of communications
e) Describe various methods used to manage and schedule projects
f) Participate in and/or conduct design reviews
g) Collect, analyze and interpret data
h) Create 3D CAD models with SolidWorks software

FIRST – FTC:
Students in this class will be part of a school based FTC robotics team and should expect to attend at least two local events. http://www.usfirst.org/roboticsprograms/ftc
http://cc.sduhsd.net/subsites/Michael-Remington/Robotics-Teams-and-Program/index.html

Grading
Projects (30%), Participation (25%), and Lab Assignments & Explorations (30%), Final Design Project (15%).

Syllabus Link
http://cc.sduhsd.net/subsites/Michael-Remington/Robotics/index.html
RobotC Curriculum for Tetrix and Lego Mindstorms
http://www.education.rec.ri.cmu.edu/previews/robot_c_products/teaching_rc_tetrix_preview/

Supplemental Information
10 credits

Meets high school graduation requirement for Practical Arts or elective credits