
Girls Academic Leadership Academy
Mr. Landa
Room 404
jal2941@lausd.net
www.mrlanda.com

Office Hours: Monday 3:15-4:15 (or by request)

1067 West Blvd
Los Angeles CA 90019

galacademy.org
(323) 900-4532

# HS Robotics

2017-2018

## Grade-Level Theme:

## Coming of Age/Culture

## Course Description

This course is about learning how to build and program robots to meet various challenges. Our goal is to enter a competition in Spring. In Fall we will practice with various robots and challenges in class in order to prep for Spring. Assignments will be posted on www.mrlanda.com/rob.html

### GOALS

- Evaluate the trade-offs of different robot builds
- Program Robots to interpret and react to sensor data

## Course Topics:

1. Building various robots
2. Designing robots to complete specific Tasks.
3. Programming a robot to use sensors

## Course Texts:

Various online resources for Lego NXT, Vex, and FIRST robots.

## School Expectations

- SHOW RESPECT
- COME TO CLASS PREPARED
- PARTICIPATE FULLY
- MAKE MISTAKES
- SPEAK POSITIVELY
- ALWAYS DO YOUR BEST

## Required Materials

The following is a required supplies list:

1. Pens & Pencils
2. Notebook
3. USB Flash Drive

## Classroom Expectations

- ALWAYS TRY THE PROBLEM
- SHARE YOUR KNOWLEDGE
- TEACH OTHERS
- TAKE RISKS
- EXPLORE

## Assessments:

**Minor assessments:** Minor assessments are not scored for correctness (unless otherwise noted). Their purpose is to inform our learning practices in the moment and let us know if it's okay to move on or if we need more instruction.

*Examples:*

- Classwork handouts
- Homework

**Major assessments:** Major assessments are formally scored for DEPTH OF UNDERSTANDING rather than percentages. Although these assessments are formal, they are not permanent; students still have the opportunity to demonstrate mastery for full credit. Understanding "course content" later than expected is not shameful, and students' hard work should be recognized with equal scores as their peers who caught on more quickly.

*Examples:*

- Projects
- Presentations
- Challenges

## Grading Scale

Semester grades are determined by level of mastery as described below:

| Grade | 1st Semester Criteria | 2nd Semester Criteria |
|---|---|---|
| **A** | >50% of Learning Targets at 3.5 or higher<br>AND<br>NO Learning Targets below a 3 | >75% of Learning Targets at 3.5 or higher<br>AND<br>NO Learning Targets below a 3 |
| **B** | > 50% of Learning Targets at a 3 or higher<br>AND<br>NO Learning Targets below a 2 | > 75% of Learning Targets at 3 or higher<br>AND<br>NO Learning Targets below a 2 |
| **C** | NO Learning Targets below a 2 | NO Learning Targets below a 2 |
| **D** | Maximum of 3 Learning Targets below a 2 | Maximum of 3 Learning Targets below a 2 |
| **F** | More than 3 Learning Targets below a 2 | More than 3 Learning Targets below a 2 |

## Mastery Rubric

Students are given multiple opportunities to demonstrate proficiency, and all graded assignments include rubrics with areas of focus for particular assignments.

| 4-Point Rubric | Description |
|---|---|
| **4** | In addition to a level 3 performance, in-depth inferences and applications go beyond what was explicitly taught in class. |
| **3** | No major errors or omissions regarding any of the information and/or processes that were explicitly taught in class. |
| **2** | No major errors or omissions regarding the simpler details and processes, but major omissions or errors regarding the complex ideas and processes. |
| **1** | With help, a partial knowledge of details and processes. |

# Grading Policy

This course and the grading policy are designed to emphasize the idea that growth is possible, and supported by giving students the opportunity to see what they are doing well and where they can improve. The goal is to elicit more meaningful responses to feedback and more accurately reflect students' progress towards mastery.

Grades are determined by using multiple assessments to gauge mastery of each learning target. Because students are given multiple opportunities to demonstrate proficiency, students are expected to demonstrate growth throughout each semester.

## Academic Honesty

Students at GALA are expected to make choices that reflect excellence, leadership, wellness, and honor. As a GALA student, you will:

- Trust the value of your own intellect
- Demonstrate your own achievement
- Accept corrections as part of the learning process
- Undertake research honestly and credit others for their work

Adapted from: https://integrity.mit.edu/

| | Learning Targets |
|---|---|
| LT1 | Build robots based on premade directions |
| LT2 | Evaluate robot components based on their intended use |
| LT3 | Design robots based on challenge criteria |
| LT4 | Program a robot following tutorials |
| LT5 | Interpret and evaluate robot programs |
| LT6 | Program robots to interpret sensor data |
| LT7 | Create robot programs to perform challenge tasks |