

Lee High STEAM

Course Syllabus – Robotics I

Course Information

Credit Hour: *Dual Enrollment **Tops
Computer Elective
Marking Period: First Semester
Class Location: Room B111
E-Mail: work@jewellschool.org

Teacher Information

Name: Jewell Simon
Phone: (225) 383-7744
Office Location: I would like one
Office Hours: 6:45- 15:00 Monday-Friday

Classroom Attributes

The manner in which we prepare students at Lee STEAM is informed by four main attributes: 1. Dedicated faculty who practice the skills that they teach; (2) Positive relationships developed and nurtured between and among adults and students; (3) A high level of rigor included in instructional practices via standards aligned and contextually driven instruction; and (4) Connecting positive relationships with effective project based instruction for positive effective RESULTS!

Course Description:

Using robots we will cover the fundamentals of problem solving, program design, algorithms and programming using a high-level language. A robot is an embedded system of software and hardware. Programming and building robots applies STEAM concepts. This course introduces the fundamental concepts of object oriented programming and robotics.

Course Competencies/ Learning Objectives

Students who successfully complete Web design 1 will be competent in the following areas:

- *fundamental programming concepts,*
- *about the scientific method and inquiry,*
- *basic physics and physical science concepts,*
- *programming concepts related to robotics,*
- *fundamental engineering concepts related to robotics,*
- *about teamwork and collaboration, and*
- *about robotics competitions and the robotics industry.*

Student Evaluation

The grading system for the Arts & Digital Media Department at Academy Park High School is as follows:

Tests, Projects, & Effort	-	50%
Quizzes, Classwork, & Minor Assignments	-	20%
Warm up, Notes, & Blogging Assignments	-	20%
Attendance & Class Participation	-	10%

Attendance Policy

Regular and prompt class attendance is an essential part of the educational experience. Lee High STEAM expects students to exercise good judgment regarding attendance and absences. Students will accept full responsibility for ensuring their work does not suffer because of absences. All students are expected to attend every scheduled class on time. Exceptions may be made for illness and valid emergencies.

Classroom Expectations

1. Arrive Timely
2. Preparation
3. Respect
4. Effort
5. Responsibility
6. Etiquette

Class Requirements

Projects will be given throughout the year. It is YOUR responsibility to complete all project assignments. You will be given the opportunity to make up one project assignment at the end of the marking period if they were not completed.

If you are absent, it is YOUR responsibility to make up the assignments and/or tests when you return. Every Monday, I will update the the whole classes' grades, thus informing everyone of the assignments and/or upcoming tests or quizzes. If you do not make up your assignments by the next Monday you will receive a zero.

It is YOUR responsibility to come after school to catch up on missed work from your absences. I will NOT re-teach the lesson during class time.

Plagiarism, Cheating, and Academic Integrity

Plagiarism is the practice of copying words, sentences, images, or ideas for use in written or oral assessments without giving proper credit to the source. Cheating is defined as the giving or receiving of illegal help on anything that has been determined by the teacher to be an individual effort. Both are considered serious offenses and will significantly affect your course grade. Please refer to the Student Code of Conduct booklet for additional information.

Methodology

A combination of meaningful projects, short lecture, class discussion, presentations, videos, cooperative learning, and problem-based learning will be used in this course. Grades will be determined by the satisfactory and timely completion of assignments. The grade of each assignment is based on the prerequisite given for each assignment. Below is an overview of topic/ units and major assessments/assignments for this course. Please note dates/timeframes are subject to change and are an estimate.

Unit/ Topic	Course Activities	Assessments/Assignments	Month/ Timeframe
Unit 1: Introduction to Engineering	Large Group Conceptual Design	Notes/ Quiz/	Aug 18-22
Unit 2: Introduction to Robotics	Small Group Review	Quiz/Tst	Aug 25-Sept 5
Unit 3: Introduction to VEXnet	Large Group Projects	Team Governed Project	Sept 8-19
Unit 4: Introduction to Autodesk Inventor	Example Problems	Quiz/Test, Notes	Sept 22-Oct 3
Unit 5: THE GAME!	Small Group	Quiz/Test, Notes	Oct 6-31
Unit 6: Object Manipulation	Large Group	Quiz/Test,	Nov 3-14
Unit 7: Speed, Power, Torque & DC Motors	Small Group	Quiz/Test, Notes, Homework	Nov 17-Midterm
Midterm	Individual	Test	Midterm

IMPORTANT INFORMATION:

IF YOU ARE HAVING TROUBLE WITH THIS CLASS, COME TO ME IMMEDIATELY AND I CAN WORK WITH YOU. I WILL BE AVAILABLE TO HELP YOU UNDERSTAND SO YOU CAN BE SUCCESSFUL IN THIS CLASS. IF YOU WAIT TILL THE END OF THE MARKING PERIOD, IT WILL BE TOO LATE.

Please check and sign below

_____ I have read the information and I fully understand what I'm expected to do in class.

Student Signature: _____

Parent / Guardian Signature: _____