

Logo to Lego

2011-2012 School Year Syllabus

Instructor: Samuel Gray

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Class Times (All Times Eastern)

Section 1 Tuesday 11:30 am - 1:00 pm

Section 2 Thursday 1:15 pm - 2:45 pm

Section 3 Thursday 4:45 pm - 6:15 pm

This course will give students an introduction to computer programming and robotics. As they learn the Terrapin logo computer language, they will expand the horizons of their thinking about what a computer program can do. At the same time they will learn the basic techniques of good computer programming. They will experience robotics hands-on as they build and program their own robots with the Lego NXT kit. The course brings together programming and robotics. Studying these two areas simultaneously will stimulate the students' imaginations toward new and wonderful ways of applying this technology.

Course Materials:

We will be using the [Lego NXT Robot Lego Mindstorms Education Homeschool Pack part number W979917](#). At present this kit costs \$346. Many students already have the Lego NXT robotics kit. If they do already have a kit they must have three serve motors, two touch sensors, one light sensor, one sound sensor, one ultrasonic sensor and at least one lamp.

In addition to the robotics kit, the course requires the purchase of Terrapin's logo software, which currently sells for ~\$70 after coupon and shipping. When purchasing the Terrapin Logo software (list price \$99.95) you will need to enter the coupon code POTTERS before

checking out. These are the material and software costs for the course, there are no textbooks required other than the books provided by the Logo software company that come with the software. The tuition for this course is the same as for any junior high level course.

This link takes you to a site where you can purchase the Homeschool Pack with software:

<http://www.legoeducation.us/store/detail.aspx?pl=6&ID=1303&c=0&t=0&l=0>

This link takes you to a site where you can purchase the **Terrapin Logo** software:

<http://www.terrapinlogo.com/terrapin-logo.php>

Please place your orders for these items soon as they will not be in the TPS Virtual Bookstore.

If you did not purchase the Homeschool Pack, please make sure you have this software:

<http://www.legoeducation.us/store/detail.aspx?CategoryID=178&by=9&pt=8&ID=1670&c=1&t=2&l=0> The education version is different than the retail versions. I suggest you call instead of ordering online. I have attempted to arrange a discount, but have been told that each region can offer their own discounts, and each family would have to talk to their regional rep. Please do not worry if you have the “wrong” Lego software on the first day of class, because we will be able to work with all of them, but the Education version 2.0 has more features that will be helpful throughout the year.

Students must also have a working microphone. A headset microphone (including headphones) is highly recommended. I also suggest that you look for a model that includes a headset volume control. Click [here](#) for a picture of the set I use.

Course Requirements:

Students will be expected to complete all assigned homework, quizzes, tests and projects. Not all homework will be collected but must be

available upon request. Students should expect to take short quizzes throughout the year.

Students will also be expected to participate in the study buddy forum. In many cases a simple question may be answered more quickly by a study buddy than I would be able to answer it.

Submission Assignments Online:

Unless otherwise noted all assignments are submitted online through StudyPlace. Students should name their files with their full name and the assignment unless otherwise noted. Example: JohnSmithLab1.

Grading Policies:

Students will on a weekly to bi-weekly basis be expected to complete a lab report for an assigned project. These lab reports will then be uploaded and graded. On occasion students may also be asked to upload a project along with their lab report. Using these reports and projects along with class participation students will be graded on a **PASS/FAIL** basis.

Checking your grades online:

Grades will be available online via StudyPlace.

I have read and understand the requirements and agree to follow the guidelines for this course as outlined in this syllabus.

Student Signature: _____
Date: _____

Parent Signature: _____
Date: _____

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