**Integrated Math 1 Syllabus**

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***"If we all did the things we are really capable of doing, we would literally astound ourselves." -Thomas Edison***

**Essential Questions for this course:**

- What is the value of math to you?
- What are the practices and habits that successful mathematicians use and how can we foster those in ourselves and eachother?
- How can we use group work and projects in math to propel us forward as "doers of mathematics" and not just passive consumers of it?

**Course Overview:**

This course is designed to immerse students in math within the project-based environment. We will balance our time between:

- *Open-ended problems:* In these, we will pour over and work collaboratively to solve rich problems that students might encounter in the world around them.
- *Math & Integrated Projects:* These will provide an opportunity to transform our mathematical knowledge in a contextualized way. We will do one large integrated project as a team and a few small mini-projects in math class.
- *Procedural Fluency:* There will be times when value could be gained from practicing a specific discovery from class and we will dedicate some time to developing fluency with these ideas.

**Integrated Math 1 Content:**

In our Integrated Math I class we will cover statistics, algebra, and geometry. A general outline of the content for the year can be found at http://www.corestandards.org/assets/CCSSI_Mathematics_Appendix_A.pdf).

| Semester 1 | Topic & Key activities |
|---|---|
| **Week 1** | **Classroom Introduction:** Week of inspirational math, establishing group work norms, building a safe space for sharing ideas and making mistakes |
| **Weeks 2-5** | **Univariate Statistics:** Empathy Math Project (specifically addressing measures of center and variability and learning to tell the "story" of a graph) |
| **Weeks 6-10** | **Bivariate Statistics:** Empathy Math Project (specifically addressing scatterplots, lines of best fit, $r^2$ values, the ways that correlation can tell a story of a graph) |
| **Weeks 13-15** | **Linear Equations and Inequalities:** Beginning with visual patterns and moving into various modeling activities |

**Math Binder/Portfolios:** For math class, you will need to have a binder or a section of another binder to keep your work neat and organized. Any handouts or notes should be stored in there until you submit your portfolio for each unit/project. At that point, I will save portfolios and redistribute them when it is time for end of semester POL's.

**Google Classroom:** All assignments, announcements and general classroom/school information will be posted on Google Classroom. Parents can opt into our Google Classroom if they would like to stay in the loop about the happenings in our class. My code is _____

**Homework**: This year we will be incorporating Table Talk Math as a weekly homework activity. The purpose of the activity is to give opportunities for mathematical conversations at home via a prompt, article or open ended math question. These problems will be distributed each Monday and will be submitted on Fridays. There will be very little other homework as I encourage students to participate in sports, clubs, and other outside of school activities.

**Grading:** Grading for this class will be based on the the work that students produce AND the process involved in creating that work. Current brain research shows that students learn better and are more productive in math courses when standard grading systems are altered to allow them to focus on their growth, as opposed to a score, to shape their mathematical identity. As such, I will not be assigning numeric grades on assignments throughout the school year. Alternatively, for every assignment, task, or assessment, students will be given my specific expectations, collaboratively set some of their own and then receive the following feedback in person and in PowerSchool:

| | |
|---|---|
| EE | Exceeds Expectations |
| ME | Meets Expectations |
| NY | NOT YET met expectations |
| I | Incomplete or Missing |

**Final Grade*:**

At the end of the semester, students will receive a final grade, so that colleges will be able to know of their level of work in the class. This final grade will be decided through mini-conferences with the student. Students will also be provided some feedback at SLC's about where their grade currently falls, to know how to proceed. The scores will given as follows:

*A range:* Mostly ME, with a significant number of EEs
*B range:* All MEs
*C range:* Only a small number of NY
*D range*: A significant number of NY or I

*Please note that at all High Tech High schools a grade of a D is considered failing and will require the student to repeat the course in summer school.

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Please sign to show that you have read and understand the syllabus. This syllabus should remain in the front of your math binder or math section for the remainder of the year.

Parent/Guardian Signature_____

Student Signature_____

As always, please email sstrong@hightechhigh.org with questions or concerns.