

## General Information Fall 2019

### Description

This project is an application of the statistics and math you study this trimester and could possibly connect to math topics from your past if you choose. The project involves the collection and/generation of *Information* and the analysis of that data. It is an individual project and will be your original work.

### Each project must contain:

1. An *Introduction* which communicates your idea (called a "Statement of the Task") and a description of the plan to carry out your project.
2. A *Mathematical analysis* of information on your data with appropriate interpretations.

To start your project you must have access to raw data. This data can be generated by you through an experiment or a survey of some type or it can be collected from outside reputable sources.

#### Secondary Data (data collected by someone else)

- Obtain information from published tables or records, such as timetables, temperature records, crime rates, pollution data, Olympic records, etc.
- Search the internet or refer to reputable sources that publish statistical data. (must provide references).
- Talk to your librarian about data sources.

#### Primary Data (information that you personally collect)

- Create surveys or questionnaires. If you do this, you will have to make an attempt to take a few measures to collect data that is representative of the population you are studying. (for example, if you are studying something about all high school students at SHS, you can't just collect information from your Spanish class or just from your friends).
- Observational Data --- by observing or measuring using a whole range of measuring instruments such as rulers, tape measures, compasses, protractors, or electronic devices. You carry out experiments to generate data as well as long as it is not part of another class. (a past student observed features of cars as they drove past the school).

You can also create a project that uses a combination of both primary and secondary data which could offer rich opportunities of comparison. You are required to make use of mathematics in the IB Math Studies Curriculum and can include math topics from Algebra/Geometry/ Algebra 2 as well. *Historical projects that reiterate facts but have little mathematical content are not appropriate.*

## Scoring

Your project will be scored using the official IB *Assessment Criteria* which is out of 20 marks. For those of you taking the IB Math Studies Exam, this project will count as 20% of your overall IB Math Studies Score. The other 80% comes from the IB exam in May. Earning a score of 18 or higher out of 20 on the project would earn you a "7" toward the total Math Studies score (16 or 17 would earn a "6", etc). Just so you know, IB students who do not turn in at least something for a project may not take the IB Math Studies Exam.

*This project will not be valid beyond this year. The curriculum is changing for students taking the exam in the year 2021.*

## Effect on Your Grade in this class:

Some of you will finish your entire project (final draft) by the end of this trimester (end of November) or before winter break. However, you will have the option of turning in the final draft after winter break.

During this trimester, you will get your project off and rolling. You will create the introduction to your project, collect your data, and start the first few phases of your project. The first two drafts will be assessed and will contribute to your trimester grade in the "Test and Project" category. The final draft, which will be out of 20 marks, is due just after winter break. Therefore, your final internal assessment score will not affect your trimester grade in this class.

We will spend a few hours in class preparing for this project, but most of the work will be done by you outside of class. (IB estimates a total of around 25 hours total for a high level (7) project which includes class time).

Any student taking the IB Math Studies Exam in May of this year needs to submit at least something for a project by this coming January.

## Assessment Criteria

Each project will be assessed against the following criteria:

Criterion A	Introduction .....	3 pts
Criterion B	Information/Measurement .....	3 pts
Criterion C	Mathematical processes .....	5 pts
Criterion D	Interpretation of results .....	3 pts
Criterion E	Validity .....	1 pts
Criterion F	Structure and Communication .....	3 pts
Criterion G	Notation & Terminology.....	2 pts

We will spend class time familiarizing ourselves with the criteria. Make a genuine effort to get to know it well.

*The project will be assessed internally by Eugene IHS math teachers for the initial IB grade and moderated by the IBO at a later time. The final grade will be determined by the IBO and will be available on-line for you to see on July 1st along with your exam results.*

## The Hardest Part - Getting Started

Choosing your own theme & topic and creating a clear project task will be the hardest part because you have to do a lot of "ahead thinking". I will say that, based on past students, you will enjoy the experience a lot more if you choose a topic of genuine personal interest.

# Schedule for the Project:

**September/October**      -Get to know Assessment Criteria, in class.  
-See sample projects. Grade sample projects, in class.  
-Investigate your own interests / develop possible topics

**by Mid October**      -Decide on your project topic and details.  
-Write up your Introduction

**Due: Oct 14th**      **Turn in Draft #1** - Introduction and Definition of Variables  
submitted via TurnItIn.com  
**Graded, 60 points in the "Test" Category**

**By late October**      Receive feedback from Mr. Cedarlund on your introduction  
Edit your introduction.  
Collect your data.

**Due: Tues-Nov. 5th**      **Turn in Draft #2** **Graded, 80 points**  
which includes:  
++Revised Introduction  
++Data organized on a spreadsheet, in presentation form  
++Data sent electronically, by spreadsheet.  
++Description of your Data Collection Process

*If you are senior, let me know in advance of other IB deadlines like your extended essay. I will be flexible with you as long as you let me know in advance.*

## Before or during Winter Break:

*-Perform mathematical processes using your information or data that you collected or generated.  
Follow the guidelines and the Project Writing Guide.*

*-Conference with Mr. Cedarlund, as needed, about your project (or via email during winter break) to ask questions and seek advice.*

*Turn in your project the first week back after Winter Break. Don't wait until the last 2 weeks.*

## **Final Draft Deadline: Monday, January 13<sup>th</sup>**

*Which is after the first full weekend after school resumes after winter break. Think about pushing yourself to finish it before winter break or by January 7<sup>th</sup>, the first day back after winter break.*