

MASCONOMET REGIONAL SCHOOL DISTRICT

Masconomet Regional High School Curriculum Guide

COURSE TITLE: Statistics **COURSE NUMBER:** 1461

DEPARTMENT: Mathematics **GRADE LEVEL(S) & PHASE:** 12, H / AP

LENGTH OF COURSE: Full Year

Course Description:

Citizens in a free society must be able to make informed choices in all areas of their lives. This course will enable students to grasp information that is presented to them, analyze it and make reasoned decisions about it. To accomplish this, students will learn to collect, organize and display relevant data to answer questions that can be addressed with data; use appropriate statistical methods and predictions that are based on data; develop and evaluate inferences and predictions that are based on data; and apply basic concepts of probability. Students will gain insight into the use of trend graphs and measures of spread for analyzing data. They will categorize data by the type of model that best represents them, design surveys to generate data and learn to choose representative samples and identify biases in the samples and survey questions. When determining relationships among variables, students will consider the difference between association and causation.

Central Objectives:

This course contains but is not limited to the AP curriculum as described by the College Board.

This can be found at:

http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2151.html .

From the AP course description is the following overview:

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. Exploring Data: Describing patterns and departures from patterns
2. Sampling and Experimentation: Planning and conducting a study
3. Anticipating Patterns: Exploring random phenomena using probability and simulation
4. Statistical Inference: Estimating population parameters and testing hypotheses

These objectives address the Academic Expectations relating to effective communication, mathematical competency and problem solving skills.

Materials and Activities:

Text: Statistics: Modeling the World

By: David E. Bock, Paul F. Velleman, Richard D. DeVeaux
Pearson Addison Wesley; Boston, MA: 2004