AP Statistics Syllabus

Instructor: Mr. Jesus. Ortega, M.Ed
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Tutoring Hours:
Tuesdays, Wednesdays and Thursdays
Morning & After School: 7:50 –8:05& 4:10 - 4:35
Telephone: (956) 427 – 3600
Classroom: 3-206

School Schedule

Each semester is approximately 18 weeks long broken into two 9-week marking periods. The AB block schedule is 90 minute long class throughout the year.

Primary Textbook

Stats Modeling the World by Bock, Velleman, and DeVeaux, second edition, 2007

Supplemental Textbook

Introduction to Statistics and Data Analysis by Peck, Olsen, and Devore, first edition, 2001
Introduction to the Practice of Statistics by Moore and McCabe, second edition, 1993

Other Supplies

- TI-Nspire CX calculator available for each student in class.
- Class set of stop watches, rulers, calculator links
- Various supplies for labs such as globe beach balls, bean bags, M&Ms, Fatal Vision goggles, cereal, decks of cards, and dice.
- Newspaper articles, magazine articles, news clips as available and appropriate

Major Project Requirements

- Student generated topic
- Project description including a viable plan for statistical analysis
- Data collection
- Data organization, summary, and graphical displays as appropriate
- Data analysis
- Conclusions
- Comments on conditions necessary for statistical procedures and study design

A Note about Daily Lessons

Statistics lessons are enhanced using group work and what we call "labs." The labs are modeled using the approach and methods of typical science labs. On site science teachers have been most helpful over the years in sharing tips of the trade. Statistics teachers often use the term activity, but we maintain that a more scientific approach and label lends itself to more serious exploration of the statistical concepts. Some labs are listed with each unit but it should be noted that new labs are created constantly to appeal to student interest, teacher interest, and current events in the community, nation, and world. Lab times vary but always give students an opportunity to explore statistical applications and concepts first hand. Most labs are done in groups to encourage problem solving discussions among peers.

Classroom Policies:
Students are encouraged to actively participate in class in order to ensure academic success. Students must pay attention, follow classroom rules, and bring all required materials.

Classroom Policies: No cell phones
1. Follow direction and school rules at all times.
2. Be seated before the tardy bell and ready to work.
3. Bring all required materials to class; such as graph paper, pencils, notebook, etc.
4. No cursing, bullying, name-calling, putdowns or harassment (no taunting). Keep hand to yourself, as well as nay objects.
5. No food, drinks, gun, headgear, or makeup application in the classroom. (Headgear includes no headphones)

Consequences:
1. Verbal warning
2. Seating Arrangement
3. Conference with student
4. Parent conference
5. Referral

Materials: Spiral graph paper and 3-ring binder (Mandatory). Your binder or notebook is your filing cabinet for this course. You will keep a list of all assignments in your binder or folder, assignments, and daily notes in sequential order.

Absentees:
If you are absent, it is your responsibility to ask for the assignments. You will have the amount of days that you were absent to make up the work.

Late Work:
One day late – 10 points
Two days late – 20 points
Three days late – 30 points
NO late work will be taken after 3 days

Grading Practices - Grades are based on the following:
Homework: textbook problems, teacher generated worksheets, and computer output
Quizzes: All quizzes are timed free response questions from previous AP exams. Students are taught the requirements of the rubric and often become involved in the grading to enhance their understanding of the rigor required and the common pitfalls due to weak vocabulary and unclear procedure description.
Tests: All unit tests are designed by the teacher in an AP format including multiple choice questions and free response questions requiring conclusions in context.

Retest Policy:

- Students shall be allowed to retake a test one time if the following requirements are met:
    - More than 25% of the class failed the test; all students in the class will be given the opportunity to retest one time if this condition is met.
    - If the above does not apply: A student will be given the opportunity to retest on only ONE test during the 9-week period.
    - Students has one week after the graded test has been return to retake it.
    - The following grades are excluded from the retake provision, regardless of how many students failed the assignment or test:
        - Semester exams;
        - Quarter/mid-term exams.
        - Retests must be taken within a week after the test grade has been received by the student

  Corrective Action on Exams and Major Projects for grades below a 75:
    - Student will be given the opportunity to make corrections on any exam or major project where they scored less than a 75.
    - Test corrections should be done after every test. Test corrections are reworking the problem missed correctly. A half-point back for each missed if all completely correct.

Tutorials:

- All students are encouraged to come to tutorials before school or designated days.
- If you have trouble with any math questions, you are expected to come in the morning for tutorials, use study groups, and/or use resources like the textbook and internet before the homework is due

Grading policy:

- **I grade by the following method.**
    - **Class Participation, Daily work/Homework, Quizzes, 75%**
    - **Tests/Projects 25%**
    - **There will be a minimum of 3 tests per 9-week grading period.**
    - **Final Grade Configuration.**
    - **Course Work 85%**
    - **Final Exam 15%**

Technology Comments

Students use TI-Nspire CX graphing calculators in all units to assist in computation, randomization, and graphical analysis. Computer programs and simulation applets are used in class demonstrations. Student homework includes interpretation of computer output from MiniTab and Fathom.

Lab Activity Example

Note: Lab activities require students to think for themselves using the statistical concepts they have learned. The task at hand is briefly described. Students must then decide on their design, randomization if applicable, data collection, analysis, graphical displays, and conclusions. My typical answer to all questions during labs is, "I don't know. What do you think?, Tell me why?" Graphing calculators are used to complete data entry, some graphical displays, randomization, summary statistics, and inference procedures although students must explain procedures and show work. Following the lab, presentations, and class discussion, students may complete a teacher prepared worksheet to assist those that need more direction in bringing the concepts together and to emphasize the concepts in the current unit being studied. Proper statistical vocabulary is mandatory for full credit. Sometimes data collected is revisited weeks later as part of another unit to show a continuation of the application using more advanced processes. When possible, other classes such as health, AP biology, and HOSA join us for labs to serve as experts in their field while the statistics students handle the data analysis.

Example: Pig Rollin'

Students are given a rubber pig that rolls somewhat like a die with unequal probabilities of landing in seven possible positions. Groups of three to four students take on the roll of game designers to develop a fair game using the pigs. The lab requires students to determine probabilities, figure expected values, assign point values, describe and write about their process, test their game, and present their new game concept to the company (class). Discussion includes the Law of Large Numbers, relevant probability concepts, and experimental design.

We will work hard to help all students master the concepts and skill in preparation for the course. Student success will depend on many factors, including previous math knowledge and personal motivation. With all of us working together, we can help to ensure that you child has the best possible learning experience. Please cut off bottom and return. We have read and understand the Math Model Course Syllabus.

Student Name (printed)

_____

Student signature_____

Date _____

Parent Name (printed)

_____

Parent signature _____

Date _____

Parent email _____

AP Statistics: 2015-2016:

Scope & Sequence:

1st 9 weeks 8/24 – 10/23 (44 days)
2nd 9 weeks 10/26 – 1/15 (43 days)
3rd 9 weeks 1/19 – 4/1 (47 days)
4th 9 weeks 4/4 – 6/3 (44 days)

163 days before the AP Exam, 15 days for AP Exam Review, 15 days after the AP Exam, 178 days for the year