MATH 119: STATISTICS (4 units) – Fall 2013
CRN: 10662   Time: 5:30 – 7:35 T/Th
CRN: 10933   Time: 7:45 – 9:50 T/Th
INSTRUCTOR: Jill Kitzmiller, Math Department
Office Hours: MW 8 – 8:30am, W 3 – 3:30, Th 11:45 – 1:30 T/Th 4:45 – 5:30
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TEXT & MATERIALS
 Essentials of Statistics, 4E, Mario Triola. A graphing calculator (or one with statistical computation) is needed. I can help with TI-83 or TI-84 models.

COURSE/CATALOG DESCRIPTION:
Graphical representation of statistical data, calculations, and uses of various averages, measures of variability, introduction to probability, probability distributions, confidence intervals, sample size determination and hypothesis testing, ANOVA, linear regression and Chi-square analysis. Students will learn to use technology to find confidence intervals, test statistics, regression lines, and to produce graphics. This course also provides supervised practice in the appropriate use of technology designed to assist students in calculations required in beginning statistics.

PREREQUISITES
MATH 090 or 91 with a grade of "C" or better, or appropriate placement and ENGL 101 or 111 is recommended.

STUDENT LEARNING OUTCOMES
1. Identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic
2. Students will apply their knowledge of basic descriptive statistics
3. Students will apply techniques of linear modeling to explore the relationship between two numerical variables

COURSE OBJECTIVES
1. The student will distinguish the various ways of organizing, displaying, and measuring data.
2. The student will derive the numerical relationship that exists between bivariate data sets.
3. The student will demonstrate an understanding of the theory of probability and proficiency in solving problems of this nature.
4. The student will compute and interpret expected values and variance, and learn about the binomial distribution for discrete random variables.
5. The student will compute and interpret expected values and variance, and learn about the normal distribution for continuous random variables.
6. The student will examine the joint probability structure of two or more random variables and understand the limiting behavior of the sum of independent random variables as the number of the sample becomes larger.

7. The student will use the various types of distributions that are derived from the normal distribution.
8. The student will calculate and interpret confidence intervals for a population mean to show how probability connects to this type of statistical inference.
9. The student will use hypothesis testing as a formal means of distinguishing between probability distributions on the basis of random variables generated from one of the distributions.
10. The student will compare the means of the data from experiments involving more than two samples, including the single factor analysis of variance (ANOVA).
11. The student will fit a straight line to the given data in graphical form.
12. The student will make use of Chi-square distributions to analyze counts

CONTACTING INSTRUCTOR
I will be available during office hours for personal discussion. I endeavor to listen to voice-mail and look at email each day when I am on campus. I DO NOT look at email on the weekends (Friday- Sunday) or on holidays. I do not respond to email regarding absences, unless it is long term. I do not discuss grades over email, this must be done in person.

PACE OF COURSE & TIPS FOR SUCCESS
This course moves rapidly coving the material equivalent to one year of math at the high school level, and meeting only twice per week. For every hour spent in class, you are expected to spend 2 -3 hours outside of class reading the book, doing homework, and studying the material. It is critical that you read ahead and ask questions. Avoid falling behind in the material, reading and homework. You cannot learn mathematics without doing the problems. If you fall behind it will be difficult to catch up. Stay organized, take good notes and read your notes after class. If you are having difficulty with the material, get help. You can get help from me during office hours or in the IVC Math Lab or library tutoring center. Work with others outside of class, form a study group if possible. You are responsible for all material in assigned chapters and all material covered in lecture, even if you are absent, so find someone in class to make you copies of the notes & materials if you can not be in class.

BEHAVIOR
IVC School policy states that no food or drink is allowed in the classroom. Also no children are allowed in the classroom. You will be asked to leave the class for one or two class meetings if you exhibit behavior that prohibits or impedes any member of this class from pursuing any class assignment, objective or learning opportunity within the classroom. **Please be courteous of others, try to be on time, turn off your cell phone or other electronic devices, and avoid talking during lectures. DO NOT TEXT. Texting during class is disruptive to your learning and students around you.**
It is assumed that each student will do his/her own work. If a student is caught cheating on a test, that student will receive a "0" grade on that exam and the score will not be dropped. The student may also be referred to the college administration for disciplinary action. Examples of cheating include, but are not limited to, submitting someone else's work as your own and using unauthorized materials on the exams.

ATTENDANCE
IVC School policy states that students are expected to attend every session of class in which they are enrolled. It is the **student's responsibility** to add, drop, or withdraw from this class before the appropriate deadlines. You may be dropped by the instructor if you miss the first day of class or have more than 3 unexcused absences. If you decide to withdraw from this class, please let me know as a courtesy. If you fail to withdraw from this course before the deadline, you will be assigned a final grade in the course (even if you stop coming). Check the course catalogue for information on drop dates. **Regular class attendance is necessary for success in this course. You are responsible for all material covered in class during your absence.**

ACADEMIC ACCOMMODATION
Any student with a documented disability who may need academic accommodation should notify the instructor and the Disabled Student Services Programs and Services (DSP&S) office in room 2117 in the Health Science building as soon as possible. The DSP&S office phone number is (760) 355-6312.

EVALUATION
There will be four in class exams (100 points each) and a comprehensive final examination (150 points) part of which may be take home. Exams are closed book/closed note and each student must work independently. There are no make-up exams. Plan now to be in class on the date of the exams. Any missing exam grade will be recorded as a "0". Your lowest test score will be dropped (excluding the final exam). This can be done only one time.

LABS AND HOMEWORK
There will be homework assignments due for each chapter covered during the semester consisting of a few selected homework problems assigned from the text book. Homework problems will be due on the date of each exam. Problems from each section should be worked neatly on a separate piece of paper with the section number written at the top and stapled or in a folder. ***The assigned problems will NOT be enough practice for some students, do as many problems as necessary to feel comfortable with the material.*** Homework assignments are worth up to 20 points each. Late homework will have 5 points deducted from your grade for each day late.

There will be approximately 3-4 extra lab assignments that will be turned in. These labs will be started in class, but finished by the student outside of class. Labs will be due the following class meeting unless otherwise specified. Labs are worth 5 points (Candy lab is 20 points) and 2 points will be deducted from your grade for each day late.

GRADING
To receive a passing grade of "C" or better, you must have 392 points or more based on:

Homework	110 points
Exams	300 points
Final	150 points
Total	560 points

Breakdown: 504 & up = A, 448 - 503 = B, 392 – 447 = C, 336 - 391 = D, below 336 = F.

Attendance, class participation and a subjective instructor's interpretation of work may be used in assigning a final grade to borderline cases.

INCOMPLETE
To receive a final grade of incomplete, you must be passing the class and be unable to take the final exam.

Tentative Schedule – Fall 2013 – Statistics Math 119

8/19	8/20 Introduction / Chapter 1 vocabulary	8/21	8/22 2.2 – 2.3
8/26	8/27 2.4 - 2.5	8/28	8/29 3.2 – 3.3
9/2 HOLIDAY	9/3 3.4	9/4	9/5 review
9/9	9/10 EXAM 1	9/11	9/12 4.2 – 4.3
9/16	9/17 4.4 – 4.5	9/18	9/19 4.6 /5.2
9/23	9/24 5.3 – 5.4	9/25	9/26 review
9/30	10/1 EXAM 2	10/2	10/3 6.2 – 6.3
10/7	10/8 6.4 – 6.5	10/9	10/10 6.6 / 7.2
10/14	10/15 7.2 – 7.3	10/16	10/17 7.4
10/21	10/22 review	10/23	10/24 EXAM 3
10/28	10/29 8.2 – 8.3	10/30	10/31 8.4 – 8.5
11/4	11/5 9.3 – 9.4	11/6	11/7 11.2 – 11.3
11/11 HOLIDAY	11/12 review	11/13	11/14 EXAM 4
11/18	11/19 10.2 – 10.3	11/20	11/21 review
11/25	11/26 review	11/27	11/28 HOLIDAY
12/2	12/3 FINAL	12/4	12/5