MAT*K167 Principals of Statistics Fall 2011

31245   T04   MW 3:30 pm – 4:45 pm   D 211

INSTRUCTOR: Dr. Kelly Molkenthin (pronounced "molk-in-tine")
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                        Office Hours: Mondays   11:00 am – 12:00 pm
                                         Wednesdays   11:00 am – 12:00 pm
                                         Thursdays   12:30 pm – 1:30 pm
                                         Fridays   11:30 am – 12:30 pm
                                   and by appointment.

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REQUIRED MATERIAL:

- *Elementary Statistics, 11th Edition*. Mario F. Triola. Pearson Prentice Hall, 2009.
  ISBN # 978-0-321-50024-3 (also, ISBN # 0-321-50024-5)

- Calculator that supports 2-variable statistical calculations (preferably the TI-83 or TI-84).

CALCULATORS: Calculators will be needed for many homework problems and it is REQUIRED that you bring one to each class, **every quiz** and **each exam**. Cell phones may NOT be used as calculators. It is highly recommended that you have a **TI-83** or **TI-84**.

COMPUTERS: Online homework will be assigned regularly and will be completed using MyLab and Mastering at **http://pearsonmylab.com**. If you did not purchase a book which has an access code bundled with it, you will have to purchase an access code separately. To register with MyLab, you will need the following information:

Course name: Elements of Statistics

Course ID: molkenthin30152

Go to the above website and click on the tab *Student* under "Register". Enter the course ID (see above) under "Enter Your Course ID" then click on *Continue*. It will now ask you to sign in with your Pearson account. If you have used MyMathLab in the past, you can log on here with your previous log-in information. If this is your first time using MyLab (previously known as MyMathLab), you will need to click on the blue "Create an account" link above the Username block. If you are creating an account for the first time, fill in the information requested, accept the license agreement and click "Create account". If you have an account, you do not need to re-create one, just log on with your existing account username and password and you are ready to go. If you do not have an access code, you can purchase one now with a credit card by clicking on *Pay with a credit card or PayPal* under Enrollment Options. If you have an access code (inside the cover of a new textbook purchased from the bookstore), you are ready to register, so click *Use an access code* under Enrollment Options. Enter your six word access code when prompted, click *Next*, and follow the prompts to create your own login name and password. **Be sure to remember/record your user name and password. Forgetting your user name and/or password is NOT a valid reason for not completing assignments.** After you have registered, return to the above website and you can now log in. Go to the *Welcome Page*, click on your course, and then choose the *Installation Wizard* link to make sure your computer has the required set-up and plug-ins. **Technical support** for the company is at 1-800-677-6337, Monday through Friday, 9 am – 6 pm.

GRADING:

3 In-class Exams:	300 points (100 each)	
Final Project:	100 points	
Final Exam (cumulative):	150 points	
Weekly Quizzes:	100 points (10 each)	
MyLab	100 points	
Attendance and Participation:	50 points	
Total:	800 points	

Your final grade is the total number of points you have received divided by the total possible number of points. Final grades will be determined using the scale below:

A → 93% and above   **A-** → 90 - 93%

B+ → 87 - 89%   **B** → 83 - 86%   **B-** → 80 - 82%

C+ → 77 - 79%   **C** → 73 - 76%   **C-** → 70 - 72%

D+ → 67 - 69%   **D** → 63 – 66%   **D-** → 60 – 62%

EXTRA CREDIT: There will be **no** "extra credit" assignments for this course.

ATTENDANCE: Attendance is required and will be taken for each class. An absence is excused ONLY for valid reasons (to be determined by the instructor) and if notification is given **PRIOR** to a missed class (via email or phone message – **not** word of mouth from another student). ***Also, if you miss a class it is **YOUR** responsibility to get the class notes from another student and **BE PREPARED** for the next class meeting (this includes taking the scheduled quizzes).***

CLASS CANCELATION: In the unlikely event that a class needs to be canceled by the instructor, you will be notified by the instructor via email at least one hour prior to the class meeting on the day of the class cancelation.

HOMEWORK AND QUIZZES: Homework (both from the text and online) will be assigned on a regular basis. It is expected that you complete the online assigned problems by the due date on the assignment, and the homework in the text by the next class meeting. Your weekly online quizzes will be testing the concepts emphasized from class that week and these homework assignments. We will have at least 12 quizzes throughout the semester. I will count your top 10 scores. All quizzes MUST be completed by the due date & time, NO EXCEPTIONS!
Extensions on MyLab assignments will be given in **EXTREME** situations. Students will be allowed no more than four MyLab extensions. Extensions on MyLab may not extend beyond the date of the exam containing the particular assignment for which the extension is being requested.
Our expectation is that you are spending 2-3 hours of reading and doing homework for this class for every one hour we meet in class. So, you should expect to spend *at least* **6-9 hours per week** on this class (outside of class meetings), every week!

EXAMS: You will have four online exams and one online final exam. Regular exams will be assigned on Wednesdays at the close of class and will be due prior to class the following Monday. Once any exam is opened, it needs to be completed in that sitting. Unlike online homework, online exams **cannot** be reopened. Keep this in mind and plan accordingly. Exams are scheduled to open on the following dates: **Exam 1: Wednesday 9/21/11 (due Monday 9/26 – 3:30 pm)**, **Exam 2: Wednesday 11/2/11 (due Monday 11/7 – 3:30 pm)**,, **Exam 3: Wednesday 12/7/11 (due Monday 12/12 – 3:30 pm)**,, **Final Exam: Wednesday 12/14/11 (due Monday 12/19 – 3:30 pm)**,**.** This <u>may</u> change (but hopefully not), depending on   how we are doing. No exam will be administered prior to the date/time of the scheduled exam and **if you miss an exam, you will receive a grade of 0 (zero)**. No exam will be opened past the due date/time.

RETENTION OF PAPERS: Students are expected to retain all graded work until final grades are received.

ACADEMIC DISHONESTY: Academic integrity is essential in all aspects of college coursework and learning. I have zero tolerance for academic dishonesty. It is expected that **YOU** complete all your assigned homework/labs. Communication or collaboration of ANY sort is ABSOLUTEY PROHIBITED during any quiz or exam.   Academic Misconduct is punishable in a number of ways, including a score of a zero on the assignment where the cheating took place, a grade of an F in the course and/or possible censure on your permanent record. All cases of academic dishonesty will be referred to the Academic Honor Council. Do not let yourself come under the suspicion of academic dishonesty.
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COURSE OBJECTIVES: The objective of this course is to provide you with a basic understanding of statistical concepts. You will learn how to organize and analyze data, design samples, compute and analyze correlation and regression lines, compute and analyze confidence intervals and perform hypothesis tests. Emphasis is placed on the **analysis**, not just the computations.

COURSE OUTCOMES:
1. Construct and interpret histograms, stem leaf plots, and frequency tables for sets of data.
2. Find mean, median, mode, range, standard deviation, deciles, and quartiles.

3. Calculate linear correlation coefficient; fine equation of regression line and use equation to predict values.

4. Apply the basic rules of addition, multiplication, and counting. Find conditional probability.
5. Construct contingency tables and use to find probabilities.

6. Determine if data satisfies a probability distribution.
7. Know when to use the binomial distribution, standard normal distribution, or a normal distribution as an approximation to a binomial distribution.
8. Know when to apply the Central Limit Theorem.

9. Determine confidence intervals for means and proportions and find sample sizes necessary for statistical analysis.
10. Perform appropriate hypothesis tests.

ACCOMMODATIONS: Students with learning disabilities should contact the Learning Specialist, Chris Scarborough at 860-892-5751 or cscarborough@trcc.commnet.edu as soon as possible to ensure timely accommodations. Students with physical disabilities should contact Judy Hilburger at 860-383-5420 or via email at jhilburger@trcc.commnet.edu or Matt Liscum at 860-383-5420 or via email at mliscum@trcc.commnet.edu to facilitate accommodations. All testing/quizzing accommodations MUST be discussed with the instructor in a timely manner, that is, *at least* one to two class meetings prior to any scheduled test/quiz for which accommodations are needed.

CELL PHONE POLICY: All cell phones must be turned OFF or MUTED before entering the classroom and properly placed in a bag or pocket (not left on a desk). Any cell phone ringing or beeping during a class is inappropriate and unacceptable.   Texting during class is also inappropriate and will not be tolerated. Students found texting in class will be asked to leave and will lose their attendance points for that class period.

ACCEPTANCE POLICY: After reading this syllabus, choosing to stay registered for this course exemplifies your acceptance of the syllabus and all policies and consequences outlined in the syllabus,   If you do not agree with any of the terms in the syllabus, you are free to withdraw immediately and you have up through September 1, 2011, to register for another section.

The key to success in this course is to attend every class and do all the homework when it is assigned. Ask questions when you have them, either in class or in my office. You will find it much easier to learn the new topics if you consistently keep up with the course material and homework problems!

TENTATIVE SYLLABUS   MAT K167
FALL 2011

Week of:	Chapter(s):	Topics Covered:
8/31	1.1, 1.2	Introduction Statistics, **Quiz #1 (due Monday 9/5)**
9/5	1.3 – 1.5	*****No classes Monday 9/5 – Labor Day***** Types of Data, Collecting Data, **Quiz #2 (due Monday 9/12)**
9/12	2.1 – 2.4	Describing and Comparing Data, **Quiz #3 (due Monday 9/19)**
9/19	3.1 – 3.4	Measures of Center, Variation and Relative Standing, Boxplots, **Quiz #4 (due Monday 9/26)**
9/26		Catch-up, **Exam #1 (due Monday 10/3)**
10/3	10.1 – 10.3	Correlation and Regression, **Quiz #5 (due Monday 10/10)**
10/10	4.1 – 4.5	Basic Concepts of Probability, Addition Rule, Multiplication Rule, Conditional Probability, **Quiz #6 (due Monday 10/17)**
10/17	5.1 – 5.4	Random Variables, Binomial Distribution, **Quiz #7 (due Monday 10/24)**
10/24	6.1 – 6.3, 6.5	Standard Normal Distribution, Sampling Distributions, The Central Limit Theorem, **Quiz #8 (due Monday 10/31)**
10/31		Catch-up, **Exam #2 (due Monday 11/7)**
11/7	7.1, 7.3, 8,1, 8.2, 8.4	Estimating a Population Mean: σ Known, Basics of Hypothesis Testing, Testing a Claim About a Mean: σ Known, **Quiz #8 (due Monday 11/14)**
11/14	7.4, 8.5	Testing a Claim About a Mean: σ Unknown, Estimating a Population Mean: σ Unknown, **Quiz #9 (due Monday 11/21)**
11/21	9.3, 9.4	Inference About Two Means, **Quiz #10 (due Monday 11/28)** *****No classes Wednesday 11/23 – Happy Thanksgiving******
11/28	7.2, 8.3	Estimating a Population Proportion, Testing a Claim About a Population Proportion, **Quiz #11 (due Monday 12/5)**
12/5		Catch-up, Project Work, **Exam #3 (due Monday 12/12)**
12/12		**Project Due 12/12**, Review, **Quiz #12 (due Monday 12/19)**
12/19		**Final Exam Due Monday 12/19**

The instructor has the right to change/modify this syllabus at any time with proper notification to the class