MAT*K167 Principals of Statistics Spring 2012

11992 T04 MW 3:30 pm – 4:45 pm E202

INSTRUCTOR: Dr. Kelly Molkenthin (pronounced "molk-in-tine")
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Office Hours:

Tuesdays	12:30 – 1:30 pm
Wednesdays	9:00 – 9:50 am
Thursdays	10:00 – 10:50 am
Fridays	12:00 – 12:50 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: molkenthin06637

Go to the above website and click on the tab *Student* under "Register". If you already have a Pearson account (you've used MyLab or Course Compass before), enter your user name and password and click *"Sign In"*. If you do not yet have a Pearson account, click on *"create"* under "Create a Pearson Account". **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.** Enter the course ID (see above) under "Enroll in a New Course" then click on *Continue*. 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), you are ready to register, so click *"access code"* under "Select an Option". Enter your six word access code when prompted, click *Next*, and follow the prompts to create your own login name and password. 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 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 - 92%	
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, phone message – **not** word of mouth from another student). All absences reported by phone must be followed up with an email. Oversleeping and "colds" are examples that are **not** valid reasons for an absence.

Also, if you miss a class it is **YOUR** responsibility to get the class notes from another student (refer to your class list) 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 as soon as possible 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 in-class (approximately) weekly quizzes will be testing the concepts emphasized from class that week and these homework assignments. We will have 12 quizzes throughout the semester. I will count your top 10 scores. Make-ups for quizzes will be given in extreme situations and if arrangements are made with the instructor **prior** to the class meeting in which the quiz takes place. If you miss a class in which a quiz in given, DO NOT assume you will automatically be able to make up the quiz, it must be approved by the instructor. All make-ups must be completed before the next class meeting after the given quiz. Make-ups for quizzes will not be given if the absence on the quiz date is not an excused absence.

For the online homework: For most assignments, you will be given one week from the date assigned to complete your online assignment for full credit. Once due dates have passed, most assignments will remain open for one additional week. This will give you the opportunity to complete any missed problems for ½ credit. **Note: Deadlines for online homework will not go beyond the exam date for the exam that covers that material. This means for some sections you may not have a complete week to complete the assignment, or may not have the additional week to receive the ½ credit. All online assignments MUST be completed prior to taking the exam on that material. Watch your MyLab carefully. All assignments are due by 3:30 pm on due dates.

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 three online exams and one online final exam. Regular exams will be assigned on Wednesdays at the close of class and will be due the following Monday at 11:59 pm. Once any exam is opened, it needs to be completed in that sitting. Online exams **cannot** be reopened. Keep this in mind and plan accordingly. Exams are scheduled to open on the following dates: **Exam 1**: **Wednesday 2/15 (due Monday 2/20 – 11:59 pm)**, **Exam 2: Wednesday 4/11 (due Monday 4/16 – 11:59 pm)**, **Exam 3: Wednesday 5/2 (due Monday 5/7 – 11:59 pm)**, **Final Exam: Wednesday 5/9 (due Monday 5/14 – 11:59 pm)**,**.** This may 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.
Any student with a 93% or higher average at the end of the semester (this includes three exams, top ten quizzes, project, MyLab and attendance points) is exempt from the final exam and will receive a final grade of an A.

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. Any cell phone use, especially texting, during class is also inappropriate and will not be tolerated. Students found using cell phones in any way in class will be asked to leave and will lose their attendance points for that class period. Cell phones may NOT be used for calculators in class.

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 February 1, 2012, 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 - SPRING 2012**

Week of:	Chapter(s):	Topics Covered:
1/23	1.1 – 1.4	Introduction Statistics, Types of Data, **Quiz #1 - 1/25**
1/30	1.5, 2.1 – 2.3	Collecting Data, Frequency Distributions & Histograms, **Quiz #2 – 2/1**
2/6	2.4, 2.5, 3.1, 3.2	More Statistical Graphs, Measures of Center**, Quiz #3 – 2/8**
2/13	3.3, 3.4	Measures of Variation and Relative Standing, Boxplots, **Quiz #4 – 2/15, Exam #1 opens 2/15 4:45 pm**
2/20		**No Classes Monday 2/20 – Presidents Day** **Exam #1 closes 2/20 11:59 pm**
	10.1, 10.2	Correlation
2/27		**No Class Monday 2/27 – Instructor out of Town**
	10.3	Regression, **Quiz #5 – 2/29**
3/5	4.1 – 4.3	Basic Concepts of Probability, Addition Rule, **Quiz #6 – 3/5** **No Class Wednesday 3/7 – Instructor out of Town**
3/12		**No Class Monday 2/27 – Instructor out of Town**
	4.4, 4.5	Multiplication Rule, Conditional Probability
3/19 ,		**NO CLASSES 3/19 – 3/26: SPRING BREAK!!**
3/26	5.1 – 5.4	Random Variables, Binomial Distribution, **Quiz #7 – 3/28**
4/2	6.1 – 6.5	Standard Normal Distribution, Sampling Distributions, The Central Limit Theorem, **Quiz #8 - 4/4**
4/9	7.1, 7.3	Catch-up, **Quiz #9 - 4/11** **Exam #2 opens 4/11 4:45 pm**
4/16	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 #10 – 4/18** **Exam #2 closes 4/16 11:59 pm**
4/23	7.4, 8.5, 9.3	Testing a Claim About a Mean: σ Unknown, Estimating a Population Mean: σ Unknown, Inference About Two Means, **Quiz #11 – 4/25**
4/30	7.2, 8.3, 9.2	Estimating a Population Proportion, Testing a Claim About a Population Proportion, **Quiz #12 – 5/2** **Exam #3 opens 5/2 4:45 pm** ****Final Project due Wednesday 5/2 IF interested in being exempt from final exam****
5/7		**Exam #3 closes 5/7 11:59 pm** ****Final Projects due Wednesday 5/9**** **Final Exam opens 5/9 4:45 pm**
5/14		**Final Exam closes 5/14 11:59 pm**

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