MAT*K167 **Principals of Statistics** Fall 2016

32033   T3   TR   11:00 am – 12:15 pm   **D226**

INSTRUCTOR: Dr. Kelly Molkenthin (pronounced "molk-in-tine")
                          Office: C 234, 860-215-9455
                          Email: kmolkenthin@trcc.commnet.edu

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                          Office Hours: Monday 12:15 – 1:15 pm
                                           Tuesday 12:30 – 1:30 pm
                                           Wednesday 12:15 – 1:15 pm
                                           Thursday 12:30 – 1:30 pm
                          and by appointment.
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REQUIRED MATERIAL:

- *MyLab* access code

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

RECOMMENDED MATERIAL:

- *Elementary Statistics, 12th Edition*. Mario F. Triola. Pearson Prentice Hall, ISBN # 978-0-321-83696-0

CALCULATORS: Calculators will be needed for many homework problems and it is REQUIRED that you bring one to **each class** and **every quiz**. 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 **www.pearsonmylabandmastering.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 for Principles of Statistics – Fall 2016:

1) Go to www.pearsonmylabandmastering.com and click on "**Get Registered**" in the *Students* tab.

2) Be sure you have the information needed then select "**OK! Register now**".

3) Enter the course ID, **molkenthin14103**, then click on *Continue.*

4) If you already have a Pearson account (you've used MyMathLab, MyITLab, MyPsychLab, … or Course Compass before), enter your **username** and **password** and click *"Sign In"*.

   If you do not yet have a Pearson account, click on *"Create"* under "Create a Pearson Account" and complete the required fields.

   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.

5) Select an access option.   ➢ Use the access code that came with your textbook or that you purchased separately from the bookstore.
                               ➢ Buy access using a credit card or PayPal account
                               ➢ Get 14 days temporary access (the link is at the bottom of the screen). If you choose 14 day temporary access, you will need to purchase full access prior to the end of the 14 day access.

6) From the conformation page, select **"Go To My Courses"**

7) On the My Courses page, select the course tile **Principles of Statistics – Fall 2016** to start your work.

To sign in later:

1) Go to www.pearsonmylabandmastering.com

2) Select **"Sign In"**

3) Enter your Pearson account **username** and **password** and **Sign In**

4) Select the course tile **Principles of Statistics – Fall 2016**

To upgrade temporary access to full access:

1) Go to www.pearsonmylabandmastering.com

2) Select **Sign In**

3) Enter your Pearson account **username** and **password** and **Sign In**

4) Select **Upgrade access** from the course tile **Principles of Statistics – Fall 2016**

5) Enter and access code or purchase with a credit card or PayPal account

  ** **Technical support** for the company is at 1-800-677-6337, Monday through Friday, 9 am – 6 pm.

GRADING:		
	3 Exams:	225 points (75 each)
	Final Project:	200 points
	Final Exam (cumulative):	100 points
	Weekly Quizzes:	200 points (20 each)
	MyStatLab	100 points
	Attendance/Participation/Class Work:	75 points
	Total:	900 points

Your final grade is the total number of points you have received divided by the total possible number of points you could have earned. 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 or reported to instructor in person **must** be followed up with an email, or they will be considered unexcused. Oversleeping and "colds" are examples that are **not** valid reasons for an absence. Do you best to not miss ANY classes!! Excused absences will not affect your Attendance/Participation/Class Work grade, unexcused absences will lower your Attendance/Participation/Class Work grade. Students are allowed a maximum of 2 excused absences per semester.
 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).
Note: Class BEGINS at 11:00 am. It is expected that you will be in your seat and ready to go at this time. Plan on arriving to class 5 minutes prior to the scheduled start time. Students arriving after the start of class time will lose attendance points for that class. Excessive "lateness" will not be tolerated, it is disruptive to both the instructor and the class. Excessive lateness will result in classroom doors being locked at the designated class start time. Also, students leaving class prior to the scheduled end time will lose attendance points for that class unless arrangements have been made with the instructor prior to the class in which the student needs to leave early.

CLASS CANCELATION: In the unlikely event that a class needs to be canceled by the instructor, a notice will be placed on the classroom door prior to the start of class. If time permits, you will be notified by the instructor via email as soon as possible prior to the canceled class.

For college cancelations, pay attention to the radio & TV announcements, call the college's main phone number, 860-215-9000, or visit the college's home page, www.trcc.commnet.edu. It is also suggested all students register for **The myCommnet Alert Notification System**. This system is used to deliver important information to students, faculty, and staff regarding weather-related class cancellations. The system delivers both email messages, and text messages over cellular phones to those individuals who are registered. To register, log on to your myCommnet account at http://my.commnet.edu/ and follow the link to myCommnet Alert. Please: DO NOT email or call your instructor regarding college closings.

HOMEWORK AND QUIZZES: Homework (both from the text and online) will be assigned for every section we cover in the text. It is expected that you complete the online assigned problems by the due date and time on the assignment, and the homework in the text by the next class meeting.

For the online homework: For most assignments, you will have one week from the date in which the assignment was posted to complete your assignment for **full credit**. Once due dates have passed, assignments will remain open until the day of the exam which covers that material. 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. All online assignments MUST be completed prior to taking the exam on that material. Watch your MyStatLab due dates carefully. All assignments are due by 11:59 pm on due dates.

For text homework: **Keep a separate notebook for your text homework**. It is expected homework from your text is completed, or at least reasonably attempted, by the next class meeting. Bring your homework notebook to every class meeting. BE SURE TO CHECK YOUR ANSWERS IN THE BACK OF THE TEXT. If you check the problem in the back of the text and it is not correct, re-do the problem. If you are struggling with the assignment, you need to seek out help either from your instructor or the tutor center ASAP!

Our expectation is that you are spending 2-3 hours of reading and doing homework for this class for every "academic" hour we meet in class. We meet 3 "academic" hours per week, therefore you should expect to spend *at least* **6 - 9 hours per week** working on material for this class outside of our class meetings, every week!

NOTE: Class time is reserved for presentation of material. Homework questions will be answered before class begins, during office hours or at scheduled meetings, not during class time.

Your weekly in-class quizzes will be testing the concepts emphasized from class and your homework assignments. **There are no make-ups for missed quizzes**. You will be given at least 15 quizzes throughout the semester, only your top 10 scores will count toward your final grade.

EXAMS: You will have three online exams and one online final exam. Once any exam is opened, it needs to be completed in that sitting. ALL online exams are due at 11:59 pm on due dates. Your entire exam MUST be complete prior to 11:59 pm on the scheduled due date. I HIGHLY suggest not waiting until several hours prior to the due date/time to start your exam (perhaps you can "pretend" it is due the night before!). If you experience technical difficulties prior to 6:00 pm on the day the exam is due, let me know *immediately* via email or in our scheduled class meeting and we will fix the problem. If you experience technical difficulties after 6:00 pm on the day the exam is due, you need to resolve the issue on your own, if resolvable, and in either case, accept the resulting grade. Online exams **cannot** be reopened. Keep this in mind and plan accordingly.

Exams are scheduled to open on the following dates:

- ♦ **Exam #1: opens Thursday 9/29, 12:15 pm, due Tuesday 10/4, 11:59 pm**
- ♦ **Exam #2: opens Thursday 11/3, 12:15 pm, due Tuesday 11/8, 11:59 pm**
- ♦ **Exam #3: opens Thursday 12/8, 12:15 pm, due Tuesday 12/13, 11:59 pm**
- ♦ **Final Exam: opens Wednesday 12/14, 9:00 am, due Friday 12/16, 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 session (this includes three exams, top ten quizzes, project, MyStatLab and Attendance/Participation/Class Work points) is exempt from the final exam and will receive a final grade of an A.***

COMMUNICATION: Verbal communication with the instructor regarding missed classes, quiz make-ups, special accommodations, etc. **must** be followed up with an email (kmolkenthin@trcc.commnet.edu) as soon as possible. This is essential!

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, exams and project. Communication or collaboration of ANY sort is ABSOLUTEY PROHIBITED during any quiz or exam. Academic Misconduct is punishable in a number of ways. The minimum penalty is a zero on the assignment where the cheating took place. If a 0 is received on a quiz due to academic dishonesty, that quiz will not be dropped and will count in your final grade. Other penalties include 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 Dean of Students. Do not let yourself come under the suspicion of academic dishonesty.

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.

DIGICATION: As a student you will maintain an online learning portfolio using a college-designed template in Digication. Through this electronic tool you will have the opportunity to monitor your own growth in college-wide learning. It may even help you determine a major that is best suited to you. You will be able to keep and maintain your learning portfolio after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. If your work is selected and reviewed for assessment purposes, it will remain anonymous and private. Digication provides a "place" where you will connect your learning from the classroom, college, and life in general. Sometimes when you review all of the work you have done and think about it, you end up learning something different and perhaps unexpected! You are required to upload your final statistics project in your TRCC Digication template. You may post your own choices, as well.

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, Matt Liscum, at 860-215-9265 or via email at mliscum@trcc.commnet.edu as soon as possible to ensure timely accommodations. Students with physical disabilities should contact Elizabeth Willcox at 860-215-9289 or via email at ewillcox@trcc.commnet.edu to facilitate accommodations. All testing 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 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 use is rude and inappropriate, and will not be tolerated. Students found using cell phones in any way in class will lose their attendance points for that class period. Cell phones may NOT be used for calculators in class. All cell phones must be completely out of sight for all quizzes. Any visible cell phone during a quiz will result in a 0 for that quiz. If a 0 is received on a quiz due to a cell phone issue, that quiz will not be dropped and will count in your final grade.

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.

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. **Lack of planning on your part does *not* constitute and emergency on my part. You will find it much easier to learn the new topics if you consistently keep up with the course material and homework problems!

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

TENTATIVE SYLLABUS   MAT K167 – Fall 2016

Week of:	Chapter(s):	Topics Covered:
8/30	1.1 – 1.3	Introduction to Statistics, Types of Data, ♦ **Quiz #1 – Thursday 9/1**
9/6	1.4, 2.1 - 2.3	Collecting Data, Frequency Distributions, Histograms, ♦ **Quiz #2 – Thursday 9/8**
9/13	2.4, 3.1 – 3.3	Statistical Graphs, Measures of Center, Measures of Variation ♦ **Quiz #3 – Thursday 9/15**
9/20	3.3, 3.4	Measures of Variation, continued, Measures of and Relative Standing, Boxplots ♦ **Quiz #4– Thursday 9/22**
9/27	10.1 - 10.3	Correlation, Regression ♦ **Quiz #5 – Thursday 9/29** ♦ **Exam #1 Opens Thursday 9/29 (Ch 1, 2, 3), 12:15 pm**
10/4	4.1 - 4.4	Basic Concepts of Probability, Addition Rule, Multiplication Rule ♦ **Exam #1 due Tuesday 10/4, 11:59 pm** ♦ **Quiz #6 – Thursday 10/6**
10/11	5.1 – 5.4	Probability Distributions, Binomial Distribution ♦ **Quiz #7 – Thursday 10/13**
10/18	6.1 – 6.3	Standard Normal Distribution, Applications of the Normal Distribution ♦ **Quiz #8 – Thursday 10/20**
10/25	6.4, 6.5	Sampling Distributions, The Central Limit Theorem ♦ **Quiz #9 – Thursday 10/27**
11/1		Catch-up, Review ♦ **Quiz #10 – Thursday 11/3** ♦ **Exam #2 Opens Thursday 11/3 (Ch 10, 4, 5, 6), 12:15 pm**
11/8	7.1 – 7.3	Estimating a Population Mean, Estimating a Population Proportion ♦ **Exam #2 due Tuesday 11/8, 11:59 pm** ♦ **Quiz #11 – Thursday 11/10**
11/15	8.1 – 8.3	Basics of Hypothesis Testing, Testing a Claim about a Proportion ♦ **Quiz #12 – Thursday 11/17**
11/22	8.4	Testing a Claim about a Mean ♦ **Quiz #13 – Tuesday 11/22** No class Thursday 11/24 - **Happy Thanksgiving!**
11/29	9.1 – 9.3	Two Means: Independent Samples, Two proportions ♦ **Quiz #14 – Thursday 12/1** ♦ **Project Due Friday 12/2, NOON, for potential "A" students**
12/6		Tuesday 12/6 – Instructor Discretion Day (TBD) Catch-Up , Project Work ♦ **Quiz #15 – Thursday 12/8** ♦ **Exam #3 Opens Thursday, 12/8 (Ch 7, 8, 9), 12:15 pm** ♦ **ALL projects due by Friday 12/9, NOON!** **Late projects NOT accepted – NO EXCEPTIONS!**
12/13		♦ **Exam #3 due Tuesday 12/13, 11:59 pm** ♦ **Final Exam Opens Wednesday 12/14, 9:00 am** ♦ **Final Exam Due Friday 12/16, 11:59 pm**