Math 123 Syllabus for Spring 2017

Three Rivers Community College

Course: Elementary Statistics (MAT 123, T2)

CRN: 12649

Prerequisite: Acceptable placement score or MAT 095.

Location/Times: Room E221   6:00 – 8:45 Wednesdays

Instructor: Gary Hoyt

Office/Hours: D205 (Adjunct offices), 5:15- 6:00   Wednesdays

Email: ghoyt@trcc.commnet.edu

Course Description: This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, and hypothesis testing.

Textbook: Introductory Statistics, 10th Edition. Neil A Weiss. Pearson Education, Inc 2016

Attendance: It is expected that students will make every effort to attend all classes. If it should be necessary to miss a class, the student is responsible for the missed material as well as the assignment that was given.

Homework: Homework will be an integral part of this course. It is essential that you attempt all assignments and that you keep these assignments in a notebook that is dedicated solely to math homework. It will not be possible to reach your potential in this class without doing the homework on a regular basis. It is also recommended that you record the material presented in class in a separate notebook, not mixing pages of homework with pages of notes.

Calculators: A calculator that supports two-variable statistical calculations is required in this class; a TI83 or TI84 is recommended. They will be necessary for many of the homework assignments as well as for the chapter tests. You should bring your calculator to every class.

Cell Phones: Cell phones should not be evident during class. Please turn all cell phones off as you enter the room. If there are extenuating circumstances please see me and we will discuss the matter.

Withdrawal from Class: Students may withdraw in writing at the Registrar's Office. The last day to withdraw from classes this semester is May 8, 2017.

Extra Help: Three Rivers CC offers free tutoring through the Tutoring Academic Success Center (TASC), located in room C-117. Peer tutoring and peer study groups are available. Students may also see me during my regularly scheduled office time of by appointment as well.

Class Cancellation: If school is cancelled, delayed or closing early, announcements will be made on the local radio and television stations. myCommNet Alert is a system that sends text messages and emails to anyone signed up in the event of a campus emergency. Additionally, TRCC sends messages when the college is delayed or closed due to weather. All students are encouraged to sign up for myCommNet Alert. A tutorial is available on the Educational Technology and Distance Learning Students page of the web site. http://www.trcc.commnet.edu/div_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.html

If I find it necessary to cancel class, I will email all of you with as much advance notice as possible. I will use the email addresses that are on my class roster. I will send a test email later today to verify that the college has a valid email address on file. If you do not receive this email you should update your email address. Email addresses can be updated by going to Student Services in the A-1 wing.

Disabilities Statement: Students with a documented disability are provided supportive service and accommodations to assist them with their academic objectives. Services are strictly confidential. Disability services may include individualized accommodations, advising, advocacy, counseling, technical assistant and referral information. Accommodations cannot be given unless I receive notification from the Disabilities Counseling Service (383-5240). It is the student's responsibility to secure this assistance where appropriate.

If you have a disability that may affect your progress in this course, please meet with a Disability Service Provider (DSP) as soon as possible. Please note that accommodations cannot be provided until you provide written authorization from a DSP.

TRCC Disabilities Service Providers Counseling & Advising Office Room A-119	
Matt Liscum, Counselor (860) 215-9265	• Learning Disabilities • ADD/ADHD • Mental Health Disabilities • Autism Spectrum
Elizabeth Wilcox, Advisor (860) 215-9289	• Physical Disabilities • Sensory Disabilities • Medical Disabilities

Academic Honesty: Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work and act at all times with honor.

Quizzes and Tests: There will be five unit tests in this course. **All tests must be taken at the regularly scheduled time.** A missed test will result in a grade of a 0 unless **extremely** extenuating circumstances are **proven** to be present. Anyone who feels that such circumstances exist (causing them to miss a test) needs to communicate that to me as soon as possible. Please do not miss a test unless it is absolutely unavoidable.

Grading Procedure: The first four tests will be worth 100 points each and the fifth test will be worth 200 points. Attendance will be worth 60 points with a 5 point reduction being taken for every class that is missed. There will be a total of 660 points available for the semester. Your final grade will be the percentage of points earned compared to the total (660) points available.

CLASS AVERAGE	FINAL GRADE
90 – 92 / 93 - 100	A- / A
80 – 82 / 83 – 86 / 87 – 89	B- / B / B+
70 – 72 / 73 – 76 / 77 – 79	C- / C / C+
60 – 62 / 63 – 66 / 67 – 69	D- / D / D+
Below 60	F

COURSE OUTCOMES

1. Construct and interpret graphs (histograms, bar graphs, stem and leaf plots) and tables (frequency and relative frequency) for sets of data.

2. Calculate and interpret 3 measures of center (mean, median and mode) and select the appropriate measure of center to use for the set of data presented.

3. Calculate and interpret 3 Measures of Dispersion (range, standard deviation and five-number summary) then select the appropriate Measure of Dispersion to use for the data presented.

4. Solve and interpret word problems using the z score to measure relative position(s).

5. Understand and use the definition of probability and the basic rules of addition, multiplication and counting to solve probability word problems.

6. Understand and use contingency tables to solve probability word problems.

7. Understand and apply the appropriate probability distribution (binomial, standard normal or normal) needed to solve probability word problems.

8. Explain what the Central Limit Theorem is and how it is used in Inferential Statistics.

9. Determine appropriate sample sizes necessary for estimating population means.

10. Understand and develop confidence intervals for estimating population means.

11. Understand and use Hypothesis Testing to test a claim about a population mean.

Learning portfolios and assessment: All students are required to maintain an online learning portfolio in Digication that uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

STATES DEPARTMENT OF EDUCATION AND OFFICE OF CIVIL RIGHTS TITLE IX STATEMENT OF POLICY:

"Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in education programs and activities in federally funded schools at all levels. If any part of a school district or college receives any Federal funds for any purpose, all of the operations of the district or college are covered by Title IX.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination, including discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. All students (as well as other persons) at recipient institutions are protected by Title IX – regardless of their sex, sexual orientation, gender identity, part-or full-time status, disability, race, or national origin-in all aspects of a recipient's educational programs and activities."

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on Three Rivers Community College Campus, or fears for their safety from a threat while on campus, please contact Edward A. Derr, the Diversity Officer and Title IX Coordinator:

Edward A. Derr

Title IX Coordinator and Diversity Officer

Admissions Welcome Center * Office A116

574 New London Turnpike, Norwich CT 06360

860.215.9255 * EDerr@trcc.commnet.edu

TENTATIVE CLASS SCHEDULE

W	1/25	Variables and Data, Distribution Shapes, Measures of Center & Variation	2.1, 2.4, 3.1, 3.2
W	2/1	Empirical Rule, Boxplots, Use of Samples	3.3, 3.4, 3.5
W	**2/8**	**Test # 1**	
W	2/15	Probability Basics, Events, Some Rules of Probability	4.1, 4.2, 4.3
W	2/22	Contingency Tables, Multiplication Rule, Counting Rules	4.4, 4.6, 4.8
W	3/1	**Test # 2**	
W	3/8	Discrete Random Variables, Mean and Standard Deviation, Binomial Distribution	5.1, 5.2, 5.3
W	3/15	Spring Break – No Class	
W	3/22	Normal Distributions, Area Under the Curve	6.1, 6.2
W	**3/29**	**TEST # 3**	
W	4/5	Normally Distributed Variables, Normal Approximation to Binomial	6.3, 6.5
W	4/12	Sampling Error, Mean and Standard Deviation of Sample Mean, The Sample Distribution of the Sample Mean.	7.1, 7.2, 7.3
W	**4/19**	**TEST # 4**	
W	4/26	Estimating a Population Mean, Confidence Intervals (σ known), Confidence Intervals (σ unknown)	8.1, 8.2, 8.3,
W	5/3	Hypoth. Testing, P-Value Approach, Hypoth. Testing with σ Known	9.1, 9.3, 9.4
W	**5/10**	**TEST # 5**	