

## **ITAWAMBA COMMUNITY COLLEGE**

**Course Number:** MAT 2323

**Course Name:** Statistics (Online)

**Course Description:** Introduction to statistical methods of describing, summarizing, comparing, and interpreting data to include probability distributions, sampling, estimation, confidence intervals, and hypothesis testing.

**Course Pre-Requisite(s):** None

**Hours per week:** 3 semester hours credit. 3 – 6 hours per week on course materials and assignments.

### **Textbook and Materials:**

*Elementary Statistics, 8<sup>th</sup> Edition*, by Neil A. Weiss, packaged with a MyLabsPlus access code (ISBN# 1256635596). The MyLabsPlus access code can be purchased using a credit card when the student logs on the [iccms.mylabsplus.com](http://iccms.mylabsplus.com) website. This access code is good for any course using this textbook for a period of one year. All textbook materials are available on the MyLabsPlus website, therefore purchasing the textbook is not necessary, unless the student wants a hard copy to carry around.

**ICC Bookstore (662 – 862 – 8205)**

- TI- 83 Plus or TI-84 Plus graphing calculator (required)
- Graphing Paper

### **Grading System:**

Assignment	Weight
Orientation/MLP Setup	1 bonus point
MyMathLab Assignments	10%
11 Online Quizzes	35%
Final Exam Review	5%
Midterm Exam – Proctored on campus	25%
Final Exam – Proctored on campus	25%

### **Grading Scale:**

Percentage	Letter Grade
90% – 100%	A
80% – 89%	B
70% – 79%	C
60% – 69%	D
Below 60%	F

**Unit Learning Outcomes:**

- Demonstrate proficiency in the basic mathematical operations with numbers. (ULO #1)
- Use the fundamental properties and laws of mathematics to solve equations and inequalities. (ULO #2)
- Demonstrate proficiency with mathematical relations. (ULO #3)
- Demonstrate higher-order problem-solving skills appropriate to the mathematical context. (ULO #4)

**Course Learning Outcomes:**

1. Identify studies as either descriptive or inferential.
2. Identify the population and the sample in an inferential study.
3. Explain what is meant by a representative sample.
4. Describe simple random sampling.
5. Identify variables as either qualitative or quantitative.
6. Construct each of the following: grouped data tables, histograms, bar graphs, steam-and-leaf plots.
7. Use summation notation.
8. Calculate and interpret the mean, median, mode(s), and range of a data set.
9. Calculate and interpret the quartile, IQR, and five-number summary of a data set.
10. Calculate and graphically show the regression equation for a set of data points and use the regression equation to make predictions.
11. Calculate probabilities for experiments having equally likely outcomes.
12. Calculate and interpret the mean of a discrete random variable.
13. Identify and apply the basic properties of a normal curve.
14. Calculate and interpret z-scores.
15. Calculate areas under the standard normal curve and z-scores corresponding to a specified area under a standard normal curve.
16. Identify the sampling distribution of a sample mean.
17. Calculate the mean and standard deviation of the variable  $\bar{x}$ .
18. Calculate and interpret confidence intervals and margins of error.
19. Construct hypothesis tests and analyze the results.

**Assessment of Course Learning Outcomes:**

<b>Assessment</b>	<b>Corresponding Sections From Textbook</b>	<b>Course Learning Outcomes</b>
Quiz 1	Sections 1.1 – 1.3	CLO's # 1 – 4
Quiz 2	Sections 1.4 – 2.2	CLO # 5
Quiz 3	Sections 2.3 – 2.5	CLO # 6
Quiz 4	Sections 3.1 – 3.3	CLO's #7 – 9
Quiz 5	Sections 3.4 – 4.2	CLO #10
Quiz 6	Sections 4.3 – 5.3	CLO's #10 – 11
Mid-Term Exam	Sections 1.1 – 5.3	CLO's #1 – 11
Quiz 7	Sections 5.4 – 6.1	CLO's #12 – 13

Quiz 8	Sections 6.2 – 6.4	CLO's #14 – 17
Quiz 9	Sections 7.1 – 7.3	CLO #17
Quiz 10	Sections 8.1 – 8.3	CLO #18
Quiz 11	Sections 8.4 – 9.2	CLO #18
Final Exam Review	Sections 1.1 – 9.5	CLO's #1 – 19
Final Exam	Sections 1.1 – 9.5	CLO's #1 – 19

**Academic Honesty:** ICC does not tolerate cheating, the act of deception by which a student misleadingly demonstrates that he/she has mastered information or skills on an academic exercise.

First Offense: The student will receive a “0” for the assignment/quiz/test, and may not drop this grade.

Second Offense: The student will receive an “F” for the course.

Third Offense: The student will be suspended from ICC for two calendar years.

- The online math student is expected to take all online quizzes/tests without the book, without any notes, and without any help from any other person. If the student fails to follow this policy, he/she will not be capable of scoring high enough on the proctored exams to pass this course.
- The student is expected to take the proctored exams himself/herself, and shall not send someone else to take those exams for him/her. Do not open any browser window but the one of MLP while taking a proctored test.

### Supportive Services:

In accordance with section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA), a student with a documented disability may apply to the Office of Supportive and Disability Services for accommodations. The OSS on the Tupelo Campus is located in the Student Support Center, and the phone number is 662-620-5314. On the Fulton Campus, the OSS is located in the eLearning Building. The number is 662-862-8173.

### Gender-Based Misconduct:

Itawamba Community College is committed to providing an environment free from gender-based discrimination and misconduct. Itawamba Community College will not tolerate gender-based misconduct of any kind. For more information please visit <http://www.iccms.edu/Portals/0/docs/publications/studentguide.pdf>

**Writing Centers:** Assistance with writing assignments in all classes at ICC is available in the Writing Centers. Locations are Technical Education Building 101 on the Fulton campus, Student Support Center, Room 122 on the Tupelo campus, and Online at the ICC website. Please call 862-8160 or 620-5045 for more information.