

## Walters State Community College Course Syllabus

# **Course Information**

Course Number and Name: MATH 1530 Introductory Statistics Section ID: 50337.202350 Semester and Year: Summer 2023 Credit Hours: 3 Start Date: June 01, 2023 End Date: August 03, 2023 Course Format: WEB - Web Classes Catalog Course Description: An introduction to probability and statistics without calculus including descriptive statistics, probability distributions, the normal distribution, testing hypotheses, the t-test, and estimates and sample sizes. The student should check transfer institution catalogs to decide between MATH 1530 and MATH 2050 Probability and Statistical Applications. Prerequisite(s): Two years of high school algebra or Learning Support mathematics. Co-prerequisite(s): MATH 0030 required for students with ACT math score below (or equivalent score as determined by the college placement and assessment procedure) or have not completed all learning support mathematics requirements. F, S, SU General Education Course Designation: General Education Course Meeting Details: TBD Course Drop Deadline: July 12, 2023

# Instructor Information

Name: Crystal Rice Office Location: MBSS 230

**Office Hours:** Posted on office door and eLearn. Office hours are times that the instructor is available either on campus or virtually. It is recommended that students make an appointment for in-person or virtual office visits.

Office Phone: 423-585-6940

Email: crystal.rice@ws.edu

Supervisor Name: Chris Knight

Supervisor Phone: 423-585-6879

Secretary Name: Tammy Holt Secretary Phone: 423-585-6864

## Required Textbook(s) and Materials

Fundamentals of Statistics: Informed Decisions Using Data Authors: Michael Sullivan, III Publisher: Pearson Edition: 5th Additional Information The following technology is required:

1) TI-84 calculator

2) Pearson MyLab Math student access

Note: Fundamentals of Statistics eText is included with MyLab Math student access.

## Student Learning Outcomes/Objectives

Course Outcomes

1. Organize and summarize data using frequency distributions, histograms, and descriptions of central tendency and variation.

2. Compute probabilities including the use of the addition rule, the multiplication rule, and conditional probabilities.

3. For applied problems, compute probabilities using the normal distribution and the central limit theorem and find percentile scores using normal distributions.

4. Make inferences about population means and proportions from sample data using confidence intervals. Determine sample sizes required to estimate means.

5. Make scatterplots of paired data, analyze the data using linear regression and correlation, and make predictions.

6. Test claims about population means using hypothesis testing.

7. Use computer programs and/or a graphing calculator to perform statistical analysis

## Instructional Approach and Methods

Students are responsible for acquiring all equipment that is necessary for the course. Students are also responsible for making sure that their equipment is compatible with all of the learning/testing environments (eLearn, Pearson MyLab Math and ProctorU) utilized in this course.

This course requires <u>proctored</u> exams. Students will be required to complete the proctored exams ONLINE using their own equipment (computer, reliable internet, webcam, microphone, etc.).

Students must complete all exams (including the Final Exam) online through ProctorU. Students will be required to create an account and schedule each exam with ProctorU.

# Assessment, Evaluation and Testing Procedures

## HOMEWORK (200 points)

Students will complete homework assignments in Pearson MyLab Math. There will be 20 homework assignments at 10 points each for a total of 200 points. Each homework problem will have an unlimited number of attempts. **The deadline to complete homework assignments in MyLab Math is at 11:59 p.m. (Eastern Time Zone) on the due date.** Students will be automatically granted one additional day past the original deadline to submit each homework assignment. Late submissions will incur a 20% penalty - deduction of up to 2 points. No additional extensions will be granted on homework assignments! Any homework that is not attempted by the due date will receive a score of zero.

### QUIZZES (200 points)

Students will complete quizzes in Pearson MyLab Math. There will be 20 quizzes at 10 points each for a total of 200 points. Quizzes will be timed and must be completed in one sitting. (Students may not leave the quiz and return to complete it later.) Each quiz will have up to two attempts, with the highest score counting. **The deadline to complete quizzes in MyLab Math is at 11:59 p.m. (Eastern Time Zone) on the due date.** Students will be automatically granted one additional day past the original deadline to submit each quiz. Late submissions will incur a 20% penalty - deduction of up to 2 points. No additional extensions will be granted on quizzes! Any quiz that is not submitted by 11:59 p.m. (Eastern Time Zone) within one day of the original due date will receive a score of zero.

### EXAMS (1200 points)

Students are REQUIRED to complete **proctored** exams in Pearson MyLab Math. There will be three exams at 400 points each for a total of 1200 points. Exams will be timed and must be completed in one sitting. (Students may not leave the exam and return to complete it later.) Each exam will have

only one attempt. **The deadline to complete exams in MyLab Math is at 11:59 p.m. (Eastern Time Zone) on the due date.** Students will be automatically granted one additional day past the original deadline to complete each exam. Late submissions will incur a 20% penalty - deduction of up to 80 points. No additional extensions will be granted on exams! Any exam that is not submitted by 11:59 p.m. (Eastern Time Zone) within one day of the original due date will receive a score of zero.

### FINAL EXAM (400 points)

Students are REQUIRED to complete a comprehensive **proctored** Final Exam in Pearson MyLab Math. The Final Exam will be timed and must be completed in one sitting. (Students may not leave the exam and return to complete it later.) The Final Exam will have only one attempt. **The deadline to complete the Final Exam in MyLab Math is at 11:59 p.m. (Eastern Time Zone) on the due date.** Students will be automatically granted three additional days past the original due date to complete the Final Exam. Late submissions will incur a 20% penalty - deduction of up to 80 points. No additional extensions will be granted on the Final exam! A Final Exam that is not submitted within three days of the original due date will receive a score of zero.

The exam (Exam 1, Exam 2, or Exam 3) with the lowest score will be replaced by the Final Exam score only if the Final Exam score is higher. In this case, the final exam score will count twice.

## **Grading Scale**

A	1800 – 2000 points (90% or above)
В	1600 – 1799 points (80% to 89.99%)
С	1400 – 1599 points (70% to 79.99%)
D	1200 – 1399 points (60% to 69.99%)
F	Below 1200 points (below 60%)

All homework assignments, quizzes and exam scores will be posted in eLearn. The final average calculated and shown in eLearn will be the final grade for the course.

## Assignments

	Sullivan Textbook	OpenStax Textbook
Data Collection		
Introduction to the Practice of Statistics	1.1	1.1
Observational Studies versus Designed	1.2	1.4

Experiments (Optional)		
Simple Random Sampling	1.3	1.2
Other Effective Sampling Methods	1.4	1.2
Organizing and Commerciaing Data		
Organizing and Summarizing Data		
Organizing Quantitative Data: The Popular Displays	2.2	2.2
Numerically Summarizing Data		
Measures of Central Tendency	3.1	2.5
Measures of Dispersion	3.2	2.7
Measures of Position and Outliers	3.4	2.1, 2.7
The Five-Number Summary and Boxplots	3.5	2.4
Describing the Relation between Two Variables		
Scatter Diagrams and Correlation	4.1	12.2
Least Squares Regression	4.2	12.3
The Coefficient of Determination (Optional)	4.3	12.3
Probability		
Probability Rules	5.1	3.1
The Addition Rule and Complements	5.2	3.2, 3.3
Independence and the Multiplication Rule	5.3	3.2, 3.3
Conditional Probability and the General Multiplication Rule	5.4	3.2. 3.3
The Normal Probability Distribution		
Properties of the Normal Distribution	7.1	6.1
Applications of the Normal Distribution	7.2	6.2
Assessing Normality (Optional)	7.3	
Sampling Distributions		
Distribution of the Sample Mean	8.1	7.1
Distribution of the Sample Proportion	8.2	
*Only: Introduction of sample proportion		
necessary for confidence intervals		
Estimating the Value of a Parameter		
Estimating a Population Proportion	9.1	8.3

Estimating a Population Mean	9.2	8.1, 8.2
Hypothesis Tests Regarding a Parameter		
The Language of Hypothesis Testing	10.1	9.1, 9.2
Hypothesis Tests for a Population Proportion	10.2	9.3, 9.4
Hypothesis Tests for a Population Mean	10.3	9.3, 9.4
Inferences on Two Samples		
Inference about Two Means: Dependent	11.2	10.4
Samples		
Inference about Two Means: Independent Samples	11.3	10.1

## **Class Participation**

Completing homework assignments, quizzes and exams by the due dates is mandatory for success in this course. Attendance will be taken throughout the semester and determined as follows: To be counted present on the first day of class, students must register for the Pearson MyLab Math course, Introductory Statistics: MATH 1530 (Online) and attempt at least one assignment. To be counted present on the last day of class, students must submit the Final Exam. For students who do not submit the Final Exam, their last date of attendance will be the last day in which a homework assignment, quiz or exam was attempted in MyLab Math.

# Online/Web-Enhanced Course Supplementary Information

### Web Addresses:

eLearn (opens in a new window): <u>https://elearn.ws.edu/d2l/home</u>

MyLab Math (opens in a new window): https://mlm.pearson.com/northamerica/mymathlab/

ProctorU (opens in a new window): <u>https://www.proctoru.com/</u>

#### **Technical Support:**

Walters State Helpdesk (opens in a new window): https://helpdesk.ws.edu/

Morristown Campus, CCEN 303

423-318-2742

MyLab Math Student Support (opens in a new window): <u>https://mlm.pearson.com/northamerica/mystatlab/students/support/</u>

1-800-677-6337 (24/7)

ProctorU Student Help Center (opens in a new window): <u>https://support.proctoru.com/hc/en-us/categories/115001818507</u>

1-855-772-8678 (24/7)

# Academic Honesty

Faculty expect all students to refrain from acts of academic misconduct including but not limited to:

- Plagiarism refers to using another person's ideas or writing without giving proper credit to the original source. Indulging in this type of conduct will subject the student to disciplinary sanctions, which may be imposed through the regular institutional procedures of Walters State Community College as outlined in the Student Handbook. Plagiarism will result in a grade of "0" for the paper/exam/presentation. Student Conduct and Disciplinary Sanctions contained in the college Catalog/Student Handbook apply (see policy 04:18:02 Disciplinary Sanctions). Plagiarism includes, but is not limited to the following:
  - a. Using cut/paste tool from original document with no references given.
  - b. Copying another student's work and submitting it as one's own.
  - c. Forging or otherwise altering signatures.
  - d. Giving or falsifying academic documents or materials.
- 2. Cheating construed as attempting to deceive or mislead which includes, but is not limited to the following:
  - a. Utilizing old tests, projects, notes or written papers.
  - b. Providing unauthorized information to a fellow student about exam content.
  - c. Receiving unauthorized aid from any source with quizzes, examinations, or other assignments.
  - d. Seeking information in an unacceptable manner during/preceding an exam or other assigned work (cheat sheet, verbal exchange, looking at another person's paper or electronic device, utilizing headphones, using textbook when the test/quiz is not an open book test/quiz, using textbook test bank etc.).
  - e. Consulting with a classmate or others when taking a computerized test.
  - f. Disregarding other specific policies and procedures outlined for a particular class.

- g. Utilizing unapproved technology/electronic equipment during testing (i.e.: mobile devices such as cell phones, smart devices, or tablets, etc.).
- h. Using the same Internet Protocol network address (IP address) as another student for testing without approval from the course faculty.

# **Student Resources**

### **TUTORING SERVICES**

Students in need of tutoring assistance are encouraged to contact the Office of Student Tutoring located as follows:

- Morristown Campus Student Services Building Room L107 (423) 585-6920
- Niswonger Campus GRNV 226 (423) 798-7982
- Sevierville Campus MMH Room 210 (865) 286-2787
- Claiborne Campus Room 123A (423) 851-4761

Specific tutoring assistance in mathematics and writing is available in-person and online as follows:

• Morristown Campus - English Learning Lab - HUM 120 - (423) 585-6970

<u>Walters State English Learning Lab (opens in new window)</u> ws.edu/academics/humanities/writing-lab

• Morristown Campus - Mathematics Lab - MBSS 222 - (423) 585-6872

<u>Walters State Mathematics Learning Lab (opens in new window)</u> ws.edu/academics/mathematics/learning-lab

### **TECHNOLOGY SUPPORT**

Students who need assistance with computing and technology issues should contact the IET Helpdesk by phone at Morristown: (423) 318-2742; Niswonger: (423) 798-8186; or Sevierville: (865) 286-2789 or on-line access.

<u>Walters State Helpdesk (opens in new window)</u> <u>helpdesk.ws.edu</u>

### STUDENTS WITH DISABILITIES SUPPORT SERVICES

Students with disabilities must register with Student Support Services each semester in the Student Services Building, Room U134 (phone (423) 585-6892) if they need any special facilities, services, or

consideration.

<u>Walters State Student Support Services (opens in new window)</u> ws.edu/student-services/disability/

#### SUICIDE PREVENTION STATEMENT

Walters State is committed to and cares about all students. Support services are available for any person at Walters State who is experiencing feelings of being overwhelmed, hopelessness, depression, thinking about dying by suicide, or is otherwise in need of assistance. For immediate help, contact the National Suicide Prevention Lifeline by calling or texting 9-8-8 or the Trevor Lifeline at 1-866-488-7386. Veterans may also contact the Veterans Crisis Line at 1-800-273-8255 (press 1) or Text 838255.

Walters State has a relationship in place with the following community agencies to provide services (may include crisis referral services, prevention screenings, etc.):

- Cherokee Health Systems 423-586-5032
- Frontier Health 423-467-3600

# **College Policies**

### STUDENTS HANDBOOK AS OFFICIAL GOVERNING DOCUMENT

This class is governed by the policies and procedures stated in the current Walters State Community College Student Handbook. All students attending Walters State Community College, regardless of the time, location, or format of the class, must abide by the rules and regulations outlined in the current Walters State Catalog/Student Handbook and the current Walters State Timetable of Classes.

<u>Walters State Catalog (opens in new window)</u> catalog.ws.edu/

<u>Walters State Timetable of Classes (opens in new window)</u> ws.edu/admissions/registration/

### PURPOSE, LIMITATIONS AND MODIFICATION OF SYLLABUS

This syllabus sets forth the expectations for the course content, work, and grading as well as expectations for student performance and conduct. The syllabus does not constitute a contract between the student and the instructor or the College. The information contained here is subject to change at any time. The instructor reserves the right to modify this syllabus at any time with written notification to the students. Though changes are possible, it is expected that the course will be

conducted as described in this syllabus for the semester/year specified in the Course Information section of the syllabus. This syllabus is only valid for the semester/year specified and course requirements are not guaranteed for future semesters.

### COURSE GROUND RULES

- Students must attend the first day of on-ground class or contact the instructor prior to the first class. Failure to do this may result in being dropped from the class. Excessive absences may substantially lower the course grade.
- Regular class attendance is a student's obligation for any course regardless of format. (See the Walters State Catalog/Student Handbook). If a student misses class, it is his or her responsibility to contact the instructor regarding missed assignments and/or activities and to be prepared for the next class assignment.
- Students enrolled in web courses must follow the course attendance policy defined for online attendance during the first week of class and throughout the term. Failure to do this may result in being dropped from the class during week one OR may result in the accrual of absences which may negatively impact the student's grade in the course.
- Students who have not paid fees on time and/or are not correctly registered for this class and whose names do not appear on official class rolls generated by the Walters State student information system (MyWS) will not be allowed to remain in class or receive credit for this course.
- Electronic devices must not disrupt the instructional process or college-sponsored academic activity. Use of electronic devices is prohibited unless use of the device is relevant to the activity and use is sanctioned by the faculty member in charge. Electronic devices that are not relevant to the activity or sanctioned by the faculty member in charge should be set so that they will not produce an audible sound during classroom instruction or other college-sponsored academic activity.

### FINANCIAL AID

Students receiving any type of financial aid or scholarship should contact the Financial Aid Office before making any changes to their schedule. Schedule changes without prior approval may result in loss of award for the current term and future terms.

All forms of student Financial Aid may be jeopardized or lost due to the lack of Satisfactory Academic Progress in one or multiple courses. Lack of Satisfactory Academic Progress may negatively impact a student's degree/certificate completion pace and further jeopardize Financial Aid eligibility.

### CANCELLATION OF CLASSES AND ACADEMIC CONTINUITY

For information related to the cancellation of classes due to inclement weather or other events, please check the Senators Emergency Text system or the college's Web site at:

<u>Walters State Homepage (opens in new window)</u> <u>ws.edu/home/</u>

<u>Walters State Facebook page (opens in new window)</u> <u>https://www.facebook.com/WaltersState/</u>

<u>Walters State Twitter page (opens in new window)</u> <u>https://twitter.com/waltersstate</u>

or call the college's student information line, 1-800-225-4770, option 1; the Sevier County Campus, (865) 774-5800, option 7; the Niswonger Campus (423) 798-7940, option 7; or the Claiborne County Campus, 423-636-6200, option 7. Also, please monitor local TV and radio stations for further announcements.

When an event or disaster interrupts the scheduled operations of the college and the ability to proceed with the academic course activities as planned, the college and your instructor may alter the course plan outlined in the syllabus. Should an event occur, students should refer to their course e-Learn pages and/or class materials previously delivered to receive guidance from their instructor. Students should continue to monitor the official college channels of communication listed in the above paragraph. If you would like to sign up for the Senators Emergency Text system, please go to the following Web site:

### <u>Senator Emergency Text System (opens in new window)</u> ws.edu/set/

Dual Enrollment students attending on a high school campus should refer to the high school inclement weather cancellations.

### LEARNING MANAGEMENT SYSTEM

Brightspace (commonly known as eLearn or D2L) is the college's Learning Management System (LMS).

Brightspace is committed to accessibility by "deliver[ing] a learning experience that meets the needs of all people, regardless of age or ability." <u>Brightspace Accessibility Standard (opens in new window)</u>

Brightspace is also committed to guarding student data and privacy. <u>Brightspace Privacy Policy</u> (opens in new window)