Walters State Community College Course Syllabus

Course Information

Course Number and Name: MATH 1530 Introductory Statistics
Section ID: 81155.202380
Semester and Year: Fall 2023
Credit Hours: 3
Start Date: August 21, 2023
End Date: December 08, 2023
Course Format: TWY - Two-Way Video/Audio (ITV)
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: MW; 01:55PM - 03:20PM; WSCE 111
Course Drop Deadline: October 27, 2023

Instructor Information

Name: Elena Owen
Office Location: WSCE 106
Office Hours: As posted
Office Phone: 423-851-4772
Email: Elena.Owen@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

OPEN Stax (no purchase required)
Additional Information
TI 83 or TI 84 graphing calculator **required** for this course. Discuss with your instructor if you have different graphing calculator.

Required: MyOpenMath Software. This software is free. Directions on how to access it will be covered on the first class day and is also found in the eLEARN site for the course.

Required: online access to the Walters State Teams program and eLEARN systems for class lectures, testing, and individual instruction assistance. The testing procedures require an operating web camera and microphone.

Apps for this course and the platform(s):

- Microsoft TEAMS (If need it).

Supplemental or Optional Materials

Optional Online Textbook: To access the free OpenStax textbook go to https://openstax.org/ , click on "Subjects" and select "Math" on the dropdown menu. Then select "Introductory Statistics" and click on the "Table of contents".

Optional Textbook: <u>Fundamentals of Statistics: Informed Decisions using Data</u> 5th edition, by Michael Sullivan, III. This is a Pearson publishing company product and can be purchased as a MyLab (with the ebook included) or as a hardback.

Student Learning Outcomes/Objectives

- Student Learning Outcomes/Objectives

  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, 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 scatter plots of paired data, analyze the data using linear regression and correlation, and make predictions.

6. Test claims about population means and proportions using hypothesis testing.

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

Instructional Approach and Methods

Welcome to Introductory Statistics (MATH 1530).

Your professor for this course is Elena Owen.

This course will be offered in a Video Streaming format (TWY): WSCC Video streaming courses (TWY) follow traditional class meeting schedules, while providing students the opportunity to attend class sessions at one of Walters State's four campuses (Claiborne, Niswonger, Morristown, or Sevierville). Video streaming courses are good choices for students who may be unable to travel to multiple campuses. Instructors deliver instruction from one of the four campuses to students at one or more of the other campuses. Students are able to interact in real-time with the instructor and students at the other sites via video streaming technology. Lectures for this semester will have students participating in person or from their computer through TEAMS during the regular class time.

Attendance is required.

It is important to join class in person or via TEAMS prior to the first class meeting.

Details about TEAMS including how to join and the JOIN CODE will be given in a News Item on our course eLearn Homepage. For an introduction to TEAMS watch this video: https://youtu.be/Lpzq_gIaysc . For how to join a live class meeting in TEAMS watch this video: https://youtu.be/Kl4CuWfQvPE.

Minimum Technology Requirements: It is the student's responsibility to secure an up-to-date mobile device and WiFi access that operates well. Students will need a computer with a webcam (camera), speaker, and microphone.

Securing your own device is encouraged; however, if you are unable to secure a device, Walters State has a limited number of devices available to loan to students. WS students may check out devices from the WS Library; see this link for additional information: https://ws.libcal.com/reserve/equipment .

Online or in person lectures and other assignments:

- You are expected to follow the classes online or in person.

- Follow the PowerPoint and worksheets and other assignments.

In addition to the suggested reading material, all the other information will be available via online.

 Reading: The textbook provides a good general introduction. Most of the topics that are approached in the class are covered by the book. Thus, it will serve to support online/in person classes and to provide material for discussion if need it. In addition, readings in the book will support the material that you will need.

Assessment, Evaluation and Testing Procedures

Quizzes (10%)

There will four quizzes. Students must be present on the day of an in-class quiz in order to receive full credit. Quizzes missed due to absence cannot be made up with the exception of documented school sponsored events. A quiz missed due to an absence will receive a score of zero. If a quiz will be missed due to a <u>documented school sponsored event</u>, the student must contact instructor <u>before</u> the scheduled absence and make arrangements for a make-up quiz. A missed quiz due to an absence will receive a score of zero. There may also be take-home quizzes. In order to receive full credit on a take-home quiz, the quiz must be turned in no later than the <u>beginning </u>of class on the due date. Take-home quizzes turned in after the deadline will receive a score of zero. **All quizzes are online**. **Quizzes could be proctored in person**.

Exams (65%)

There will be four exams over the course material. Students must complete each exam prior to OR on the scheduled test date. Otherwise, a missed exam will receive a score of zero. <u>No make-up exams will be given after the scheduled test date</u>. If the exam will be missed due to a <u>documented school sponsored event</u>, the student must contact instructor <u>before</u> the scheduled absence and make arrangements for a make-up exam. **All exams are proctored in person.**

Final Exam (25%)

There will be a comprehensive final exam. **The Final Exam is proctored in person. All students must take the Final Exam in order to pass the course.**

Grading Scale

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Quizzes Total 10%
Chapter Tests Average 65%
Final Exam 25%

Assignments

Students will have:

Final Average = 0.10(Quizzes) + 0.65(Chapter Test Average) + 0.25(Final Exam)

Assignments and quizzes are located in the **MyOpenMath or in the eLearn** sites for this course.

Class Participation

Regular attendance is mandatory for your success in this course. It is the student's responsibility to contact the instructor <u>before</u> each planned or school-sponsored absence.

Course and Class Policies/Procedures

Exam Policy:

1. <u>ALL</u> exams are to be taken at times scheduled by the instructor.

2. Make-up exams will be given totally at the discretion of the instructor for excused absences only (excused absences include illness, death in family, and military or jury duty).

3. <u>Make-up exams must be taken before the next scheduled exam</u>

4. **Final Exam** exam is scheduled in the course by the instructor must be taken in order for the student to receive a **passing grade.**

<u>**Course Requirements:**</u>

Student responsibilities include:

- completion of required hours of work each week.

- keeping notes of the lectures/activities.

- completion of various assignments.

- attending lectures.

-completion of evaluations.

Online/Web-Enhanced Course Supplementary Information

Virtual Office Hours	Refer to eLearn
Library Information	Library Phone: 423-585-6903 WSCC Library Website (opens in new window)
Technical Support	Helpdesk Phone: 423-318-2742 WSCC Helpdesk Website (opens in new window) http://helpdesk.ws.edu/
Web Addresses/Resources	Refer to eLearn
Guidelines for Communication: Email, Discussion Posts, Chat	Refer to eLearn

Additional Course Requirements/Details/Information

Satisfactory performance in math courses generally asks for three hours of study outside of class for each hour in class. This estimate applies to an "average" student expecting an "adequate" (C) grade. Students aiming higher or those with academic problems should expect to spend more effort than the minimum.

Students must be familiar and comfortable with basic computer and Internet skills. They must be familiar with or willing to learn a variety of online tools.

Software Recommendation:

Microsoft Word is the recommended word processing software for this course.

Academic Honesty

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

1. 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.

3. The use of any generative artificial intelligence (AI) tool, such as OpenAI's ChatGPT, Google's Bard, or any other pre-trained language model (commonly referred to as "chatbot"), must be cited for any assignment where it has been used and may not be used unless specifically allowed by your instructor. Please see your instructor or the course policies within the syllabus if you have questions.

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

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

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

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

[Walters State Helpdesk (opens in new window)](helpdesk.ws.edu)
helpdesk.ws.edu

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.

[Walters State Student Support Services (opens in new window)](ws.edu/student-services/disability/)
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

Math Tutoring Options

Elena Owen is available to meet with students and answer questions. To schedule an appointment with your instructor, go to the office hours that are posted.

Math Lab: Tutoring is available with Mrs. Dixon who is located in the Math Lab, Room MBSS 222 where both in person or virtual (through TEAMS) tutoring options are available. Appointments are recommended and are made through Bookings at https://outlook.office365.com/owa/calendar/WaltersStateMathLab@ws.edu/bookings/ . Contact Mrs. Dixon if you need help making appointments or for additional information at: phone number 423-585-6872 or email Beth.Dixon@ws.edu .

TUTORING BY CAMPUS: (NOTE: Virtual computer tutoring can be done on any campus.)

1.) Morristown Campus Tutoring: In-person or online tutoring is also available through the Office of Student Tutoring located in the Student Services Building Room L107, phone number 423-585-6920. **https://outlook.office365.com/owa/calendar/WaltersStateCommunityCollege9@ws.edu/bookings/**

2.) Morristown Math Lab (Mrs. Dixon): https://outlook.office365.com/owa/calendar/WaltersStateMathLab@ws.edu/bookings/

3.) Sevierville Campus Tutoring: https://outlook.office365.com/owa/calendar/SeviervilleTutoringServices@ws.edu/bookings/

4.) Niswonger Campus (Greeneville) Tutoring: https://outlook.office365.com/owa/calendar/TutoringServicesNiswongerCampusGreeneville@ws.edu/bookings/

5.) Claiborne Campus
https://outlook.office365.com/owa/calendar/ClaiborneTutoringServices@ws.edu/bookings/

6.) NetTutor is an online tutoring service that is available 24 hours a day in many subjects. It is a free service offered to WSCC students. To access NetTutor, go the course eLearn Home page and click on Resources link.

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.

[Walters State Catalog (opens in new window)](catalog.ws.edu/)
catalog.ws.edu/

[Walters State Timetable of Classes (opens in new window)](ws.edu/admissions/registration/)
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:

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

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

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

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:

Senator Emergency Text System (opens in new window)
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." Brightspace Accessibility Standard (opens in new window)

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

Additional Course Details

	Sullivan Textbook	OpenStax Textbook
Data Collection		
Introduction to the Practice of Statistics	1.1	1.1
Observational Studies versus Designed Experiments (Optional)	1.2	1.4
Simple Random Sampling	1.3	1.2
Other Effective Sampling Methods	1.4	1.2
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 Samples	11.2	10.4
Inference about Two Means: Independent Samples	11.3	10.1