

# STP 226: ELEMENTS OF STATISTICS (Online) Fall 2022 (B) Syllabus

Class SLN: 78439 Course Code: STP 226

**Course Title: Elements of Statistics** 

**Credit Hours: 3** 

**Course Delivery Mode: Online** 

**Prerequisites**: MAT 117 or 142 or other course meeting General Studies MA requirement with C or better OR Mathematics Placement Test with a score of 50% or higher OR ALEKS score of 61 or higher OR Visiting

**University Student** 

Instructor: Paul JohnsonOffice Location: Wexler 639

**Office Phone** : N/A

Email : pdjohn11@asu.edu

**Zoom Meeting Link** : <a href="https://asu.zoom.us/j/81185807754">https://asu.zoom.us/j/81185807754</a>

(for Office Hours)

Office Hours : Mon 1:30-2:30 on Zoom, Tues / Thurs 10:00-11:00 on Zoom

**Instructor** : Paul Johnson

# ASU COURSE CATALOG DESCRIPTION:

Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.

# TEXTBOOK, LEARNING ACCESSIBILITIES AND SUPPORTING EQUIPMENT:

# **Textbook and Online Assessment System**

There is a required textbook named Fundamental of Statistics: Informed Decision Using Data, by Sullivan, 5<sup>th</sup> Edition and required access to the online assessment system called My Lab & Mastering where you will complete your homework, quizzes, and exams.

**Please note:** You ONLY need to purchase the online subscription to Pearson My Lab & Mastering. Subscription to My Lab & Mastering comes with an e-book, which is more than sufficient for this course. The physical copy of the textbook is optional. There might be an opportunity to purchase MyLab access with discounted price if the instructor is participating in the Pearson Inclusive Access (delivered by Follett) program. Regular or Inclusive Access, both types of registration come with an e-book inside homework portal.



# **Learning Management System**

Canvas is the official LMS and Canvas discussion forum will be the primary discussion forum for this class. We will use Pearson MyLab & Mastering for assignments and exams. The link for online assessment system Pearson Access - MyStatLab can be found via a link on the Canvas home page. Please carefully review the information in the "Homework" under "learning assessment criteria" section of this syllabi in order to smoothly enroll and work in Mylab and Mastering software.

#### **Calculator**

A graphing calculator is recommended for this course. The calculator should have a statistical package that includes tests of hypotheses, confidence intervals, linear regression. It must also be able to perform matrix operations. Examples of highly recommended models are the **TI 83/84**, TI Nspire CX, Casio 9850 GB Plus, or Casio Prizm. Calculators with QWERTY keyboards or that perform symbolic algebra are not permitted. For example, the TI-89, TI Nspire CAS, Casio FX2 or Casio 9970Gs cannot be used. You will not be able to use a on the computer calculator or cell phone calculator for your proctored exams.

# **Computing Device and Internet Connectivity**

This course require that you have a **computer** or a device with similar capability with **consistent and reliable internet access**. A reliable internet connection is a must to access the Canvas LMS and My lab & Mastering online assessment system. You must have a computer with **webcam**, **microphone** and Google chrome browser installed in it to use Honorlock proctoring system for exams. Be sure to have DUO access to the ASU computing system, including Canvas and MyASU. You may also require your ASU login credentials in order to access any video lectures hosted in ASU licensed cloud storage.

# **COMMUNICATION WITH THE INSTRUCTOR:**

Please check announcements, existing canvas posts and resources in Canvas regularly to stay informed with learning progress and discussions.

Canvas Discussion will be the official discussion forum for this course. The system is highly catered to getting you help fast and efficiently from classmates, the teaching assistants, and Instructor. Rather than emailing questions to the teaching staff, please post your course related questions on Canvas Discussions. The link to Discussions is in our Canvas Course. If you ask course related questions via e-mail, Instructor may redirect you to Canvas Discussions.

For the queries that cannot be posted in canvas discussion forum or for an appointment or other basic communication, the best way to contact me anytime is via e-mail. To make sure your e-mail is not lost in junk folder and the instructor response your email promptly, you **MUST** keep the following remarks in mind:

- Your e-mail should have a subject line which is relevant to your query. You should mention the class you are in (e.g. STP 226 and your class #)
- E-mails from you to instructor, must be sent from your **ASU provided email** address. All emails that are not from ASU domain will automatically be filtered and discarded.
- Please expect your instructor to respond e-mails during business days. You can expect a response within 48 hours. You should wait at least 2 business day before resending email with same query. In the event of your instructors travelling for academic conferences or other emergencies, it may take longer to respond your email. TAs can also be a great source of information.
- Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly. All instructor e-mail correspondence will be sent to your ASU email account.



# **COURSE DELIVERY METHOD AND POLICY:**

#### **Online Course**

This is an online course. There are no face-to-face meetings. You can log into your course via MyASU or <a href="https://my.asu.edu">https://my.asu.edu</a>. Appropriate learning materials can be found in the canvas course website. Students who receive financial aid and need to maintain minimum GPAs and/or completion rates should be aware that since there is no physical class attendance in an online class, online instructors will certify last days attended/participated based on verifiable participation only, such as submitted assignments, exams taken, participation in online discussion such as canvas discussion, piazza, or communicating with the instructor by email. Instructors cannot certify attendance based on your assurances that you watched videos, read power points, etc.

#### **Proctored Exam**

The department mandates that exams must be proctored through Honorlock. In our class, all exams will be proctored online using an online proctoring system called Honorlock. This service is FREE for students but requires that you have a **webcam** and **microphone**. They will verify your identity and will be proctored via webcam and screen activities. If you do not already have a webcam, usually you can find one at most major retailers for a minimal cost.

Exams will be in the MyStatLab under Honorlock proctoring. Please note the due dates in MyStatLab that correspond to the course schedule. No Exam scores will be dropped. Exam scores will not be counted if you don't use Honorlock. Exams only have one attempt at each problem, so please be careful when you submit your exams.

#### LATE EXAMS WILL NOT BE ACCEPTED AND EXTENSIONS WILL NOT BE GRANTED.

Students will be allowed to print out the formulas and tables page that is posted in the canvas. Blank scratch paper is allowed for drafting your work during exam but worked out problems can not be included on this sheet. All internet-capable devices (other than the computer you are using to take the exam) must be turned off and be made inaccessible during all exams. Anyone who accesses such a device during an exam for any reason will receive a score of 0 for that exam and possible further disciplinary measures. Anyone using a camera device for any reason (other than the webcam for proctoring) during an online assessment will receive a score of 0 for that exam, and possible further disciplinary measures. Details Honorlock exam policy and instructions are posted in the canvas.

#### **Official Photo**

According to ASU policy, all online students are required to have an official photo on file with the University. If you do not have an official photo on file, please click on this link to upload a photo: <a href="https://webapp4.asu.edu/cardservices">https://webapp4.asu.edu/cardservices</a>. There is no charge for uploading a picture. You do not have to order an ASU Sun Card

# **Recorded Lectures**

The contents of this course, including lectures and other instructional materials, are copyrighted materials. Students may not share outside the class, including uploading, selling or distributing course content or notes taken during the conduct of the course. Any learning material is authorized only for the use of students enrolled in this course during their enrollment in this course. Recordings and excerpts of recordings may not be distributed to others.



# **LEARNING OBJECTIVES:**

At the completion of this course, students will be able to complete the following learning objectives:

	Objectives
1	<ol> <li>Be able to classify variables and data as either qualitative or quantitative.</li> <li>Distinguish between discrete and continuous variables and data.</li> <li>Group data into a frequency distribution and a relative-frequency distribution.</li> <li>Draw a frequency histogram and a relative-frequency histogram.</li> <li>Construct a dotplot.</li> <li>Construct a stem-and-leaf plot.</li> <li>Draw a pie chart and bar graph.</li> <li>Identify the shape and modality of the distribution of a data set.</li> <li>Specify whether a unimodal distribution is symmetric, right skewed, or left skewed.</li> </ol>
2	<ol> <li>Obtain and interpret the mean, median, and the mode(s) of a data set.</li> <li>Define, compute, and interpret the range and sample standard deviation of a data set.</li> <li>Obtain and interpret the quartiles, IQR, and five-number summary of a data set.</li> <li>Obtain the lower and upper limits of a data set and identify potential outliers.</li> <li>Construct and interpret a boxplot.</li> <li>Define and compute the population mean and population standard deviation.</li> <li>Distinguish between a parameter and a statistic.</li> <li>Define and obtain standardized variables.</li> <li>Obtain and interpret z-scores.</li> </ol>
3	<ol> <li>Define and apply the concepts related to linear equations with one independent variable.</li> <li>Explain the least-squares criterion.</li> <li>Obtain and graph the regression equation for a set of data points, interpret the slope of the regression line, and use the regression equation to make predictions.</li> <li>Define and use the terminology predictor variable and response variable.</li> <li>Understand the concept of extrapolation.</li> <li>Identify outliers and influential observations.</li> <li>Know when obtaining a regression line for a set of data points is appropriate.</li> <li>Calculate and interpret the three sums of squares, SST, SSE, and SSR, and the coefficient of determination.</li> <li>Find and interpret the linear correlation coefficient.</li> <li>Identify the relationship between the linear correlation coefficient and the coefficient of determination.</li> </ol>
4	<ol> <li>Compute probabilities for experiments having equally likely outcomes.</li> <li>State and understand the basic properties of probability.</li> <li>Construct and interpret Venn Diagrams.</li> <li>Find and describe (not E), (A &amp; B), and (A or B).</li> <li>Determine whether two or more events are mutually exclusive.</li> <li>Understand and use probability notation.</li> <li>State and apply the special addition rule.</li> <li>State and apply the complementation rule.</li> <li>State and apply the general addition rule.</li> </ol>



5	<ol> <li>Explain what it means for a variable to be normally distributed.</li> <li>Identify the basic properties and sketch a normal curve.</li> <li>Identify the standard normal distribution.</li> <li>Use the table of areas under the standard normal curve to determine areas.</li> <li>Use the table of areas under the standard normal curve to determine the z-scores(s) corresponding to a specified area.</li> <li>Use and understand z-sub alpha notation.</li> <li>State and apply the 68-95-99.74 rule.</li> <li>Determine and calculate percentiles for a normally distributed variable.</li> </ol>
7	<ol> <li>Define sampling error and the explain the need for sampling distributions.</li> <li>Find the mean and standard deviation of the sample mean.</li> <li>State and apply the central limit theorem.</li> <li>Determine the sampling distribution of the sample mean when the variable under consideration is normally distributed or not.</li> <li>Determine probabilities for the sample mean using the sampling distribution.</li> </ol>
8	<ol> <li>Obtain a point estimate for a population mean.</li> <li>Find and interpret a confidence interval for a population mean when the population standard deviation is known.</li> <li>Compute and interpret the margin of error for the estimate of the population mean.</li> <li>Understand the relationship between sample size, standard deviation, confidence level, and margin of error for a confidence interval of the population mean.</li> <li>Determine the sample size required for a specified confidence level and margin of error for the estimate of the population mean.</li> <li>Understand the difference between the standardized and studentized versions of the sample mean.</li> <li>State the basic properties of the t-curve.</li> <li>Use the table of areas under the studentized curve with different degrees of freedom and selected significance levels.</li> <li>Find and interpret a confidence interval for a population mean when the population standard deviation is unknown.</li> <li>Decide whether it is appropriate to use the z-interval procedure, t-interval procedure, or neither.</li> </ol>
9	<ol> <li>Define the terms associated with hypothesis testing.</li> <li>Choose the null and alternative hypothesis for a hypothesis test.</li> <li>Explain the logic behind hypothesis testing.</li> <li>Identify the test statistic, rejection region, nonrejection region, and critical value(s) for a hypothesis test.</li> <li>Define and apply the concepts of Type I and Type II errors.</li> <li>State and interpret the possible conclusions for a hypothesis test.</li> <li>Obtain the critical value(s) for a specified significance level.</li> <li>Perform a hypothesis test for a population mean when the population standard deviation is known.</li> <li>Obtain the P-value of a hypothesis test.</li> <li>State and apply the steps for performing a hypothesis test, using the critical-value approach to hypothesis testing.</li> <li>State and apply the steps for performing a hypothesis test, using the P-value approach to hypothesis testing.</li> <li>Perform a hypothesis test for a population mean when the population standard deviation is unknown.</li> </ol>



10	<ol> <li>Be able to classify a study as having paired or independent samples.</li> <li>Perform a hypothesis test based on independent random samples to compare the means of two populations when the population standard deviations are unknown and are not assumed to be equal.</li> <li>Perform a confidence interval based on independent random samples to compare the means of two populations when the population standard deviations are unknown and not assumed to be equal.</li> <li>Perform a hypothesis test based on a paired sample of differences to compare the means of two populations when the population standard deviation is unknown.</li> <li>Perform a confidence interval based on a paired sample of differences to compare the means of two populations when the population standard deviation is unknown.</li> </ol>
11	<ol> <li>Find a large-sample confidence interval for a population proportion.</li> <li>Compute the margin of error for the estimate of a population proportion.</li> <li>Understand the relationship between the sample size, confidence level, and margin of error for a confidence interval for a population proportion.</li> <li>Determine the sample size required for a specified confidence level and margin of error for the estimate of a population proportion.</li> <li>Perform a large-sample hypothesis test for a population proportion.</li> <li>Perform large-sample inferences (hypothesis tests and confidence intervals) to compare two population proportions.</li> </ol>
12	<ol> <li>Identify the basic properties of the Chi-square-curves.</li> <li>Use the chi-square table to find areas under the chi-square-curves.</li> <li>Explain the reasoning behind the chi-square goodness-of-fit test.</li> <li>Perform a chi-square goodness-of-fit test.</li> <li>Group bivariate data into a contingency table.</li> <li>Find and graph marginal and conditional distributions.</li> <li>Determine whether an association exists between two variables of a population, given conditional distributions for the entire population.</li> <li>Explain the reasoning behind the chi-square independence test.</li> <li>Perform a chi-square independence test to decide whether an association exists between two variables of a population, given bivariate data for a sample of the population.</li> </ol>

# **COURSE TOPICS AND SCHEDULE:**

# **Course Topics Details**

Sections/Topics		
1.1: Intro to the Practice of Statistics		
1.2: Observational Studies vs Designed Experiments		
1.3: Simple Random Sampling		
2.1: Organizing Qualitative Data		
2.2: Organizing Quantitative Data: The Popular Displays		
2.3: Graphical Misrepresentations of Data		
3.1: Measures of Central Tendency		
3.2: Measures of Dispersion		
3.3: Measures of Central Tendency & Dispersion from Grouped Data		
3.4: Measures of Position & Outliers		
3.5: The Five-Number Summary & Boxplots		
4.1: Scatter Diagrams & Correlation		



- 4.2: Lease Squares Regression
- 4.3: The Coefficient of Determination
- 5.1: Probability Rules
- 5.2: The Addition Rule and Complements
- 5.3: Independence & Multiplication Rule
- 5.5: Conditional Probability & and the General Multiplication Rule
- 7.1: Properties of the Normal Distribution
- 7.2: Applications of the Normal Distribution
- 8.1: Distribution of the Sample Mean
- 8.2: Distribution of the Sample Proportion
- 9.1: Estimating a Population Proportion
- 9.2: Estimating a Population Mean
- 10.1: The Language of Hypothesis Testing
- 10.2: Hypothesis Tests for a Population Proportion
- 10.3: Hypothesis Tests for a Population Mean
- 11.2: Inference about Two Means: Dependent Samples
- 11.3: Inference about Two Means: Independent Samples
- 12.1: Goodness-of-Fit Test
- 12.2: Tests for Independence & the Homogeneity of Proportions

# Course Schedule - B Session

ACTIVITIES & ASSIGNMENTS	TOPICS	DUE DATES
MyLab Intro: HW 0	Orientation in MyStatLab (not graded)	10/17, Monday
Chapter 1: HW, Quiz	Sampling	10/18, Tuesday
Chapter 2: HW, Quiz	Organizing Data in Graphs	10/21, Friday
Chapter 3: HW, Quiz	Descriptive Statistics	10/25, Tuesday
Chapter 4: HW, Quiz	Least Squares Regression	10/31, Monday
EXAM 1	Chapters 1 to 4	11/1, Tuesday
Chapter 5: HW, Quiz	Probability	11/4, Friday
Chapter 7: HW, Quiz	Normal Distribution	11/9, Wednesday
Chapter 8: HW, Quiz	Sampling Distribution	11/14, Monday
EXAM 2	Chapters 5, 7 and 8	11/15, Tuesday
Chapter 9: HW, Quiz	One Sample Confidence Intervals	11/18, Friday
Chapter 10: HW, Quiz	One Sample Hypothesis Test	11/22, Tuesday



Chapter 11: HW, Quiz	Two Sample Procedures	11/28, Monday
Chapter 12: HW, Quiz	Chi Square Procedures	12/1, Thursday
FINAL EXAM	Chapters 9 to 12	12/2, Friday

# The Number of Questions for Each Assessment

HW/Quiz/Exam	Number of Questions
Chapter O Homework	12
Chapter 1 Homework	21
Chapter 2 Homework	19
Chapter 3 Homework	34
Chapter 4 Homework	23
Chapter 5 Homework	23
Chapter 7 Homework	24
Chapter 8 Homework	19
Chapter 9 Homework	24
Chapter 10 Homework	28
Chapter 11 Homework	17
Chapter 12 Homework	16
Chapter 1 Quiz	10
Chapter 2 Quiz	10
Chapter 3 Quiz	10
Chapter 4 Quiz	10
Chapter 5 Quiz	10
Chapter 7 Quiz	10
Chapter 8 Quiz	10
Chapter 9 Quiz	10
Chapter 10 Quiz	10
Chapter 11 Quiz	10



Chapter 12 Quiz	10
Exam 1	20
Exam 2	20
Final Exam	20

#### **LEARNING ASSESSMENT CRITERIA:**

#### **Homework**

We will use Pearson My Lab & Mastering (MyLab Statistics) for assignments and exams. You will need to purchase a Pearson My Lab & Mastering access code. There will be an opportunity to purchase MyLab and Mastering access with discounted price if the instructor is participating in the Pearson Inclusive Access (delivered by Follett) program. Regular or ASU Inclusive Access, both types of registration come with an e-book inside homework portal.

**Pearson Inclusive Access student registration instructions (by using Follett access codes):** If your instructor participates in Pearson Inclusive Access discount program, you will receive course related important emails prior to the term start. Please carefully review those emails to avoid any confusion regarding your book and homework software access.

Under the ASU Pearson Inclusive Access, you should purchase your Mylab and Mastering access by following instruction via using the **BryteWave Course Materials** link in the left navigation links of canvas. Follow the registration steps bellow carefully:

**Step 1:** Click on the Brytewave Course Materials tool, then click on the MyLab title to generate your unique MyLab and Mastering code. You should then copy (carefully save) this unique code which will be required when you start registering in our Mylab and Mastering course by using the Pearson Access tool.

**Step 2:** Click **Pearson Access** in the left navigation links of canvas and follow the on-screen instructions. Enter/use the unique code (that you have generated by using BryteWave tool in step 1) when asked. You will then be taken to our specific Mylab course for this class.

Please note the due dates are set by instructor and correspond to the course schedule. There is a homework assignment due for each of the chapters covered. **LATE HOMEWORK WILL NOT BE ACCEPTED AND EXTENSIONS WILL NOT BE GRANTED**. It is your responsibility to keep up with the due dates in MyStatLab. Homework has unlimited attempts at each problem, so keep working on the assignments until you get 100%!! Before starting your homework for any section, make sure that you have already worked through the respective material.

# Quizzes

After each Chapter, there is a timed Quiz in MyStatLab. Please note the due dates in MyStatLab that correspond to the course schedule. **LATE QUIZZES WILL NOT BE ACCEPTED AND EXTENSIONS WILL NOT BE GRANTED.** Quizzes only allow one attempt, so please be careful when you submit your quiz.



# **Late Assignments**

Published assignment due dates (Arizona Mountain Standard time) are firm. In general, late assignments will not be accepted. However, please reach out to the instructor if you have any extenuating reason and late action plans will be discussed. Please follow the appropriate University policies to request an <u>accommodation for religious practices</u> or to accommodate a missed assignment <u>due to University-sanctioned activities</u>.

# **Campus Network or My Lab & Mastering Outage**

Homework due dates are set by your instructor. As such it is your responsibility to complete the assigned homework in the allocated time ahead of the deadline as the server could be down for an unknown period of time.

#### **Exams**

You will take a total of 3 exams during the semester. Exam schedules are firm but you can take the exam early if you feel confident to do so. Each exam will involve a mix of mechanical skills and conceptual reasoning. The best possible preparation for the exams is regular practice and completion of assigned homework & quizzes.

Make-up exams are only given in case of documented emergencies. Please email the instructor immediately if you have missed an exam.

# Important Notes about submitted work for exams

On all of your exams, you must show all work for the problems to receive full credit, even if the final answer is correct. Do not submit just the final answer not supported by any work. Submit your scratch paper as per the instructions posted in canvas. Your handwriting must be legible, your name and class # must be clearly written at the top of the front page, and your final answers should be boxed or circled. Proper notation is mandated. Submit only 1 single PDF file of your all scratch papers.

# **Resources Allowed on Exams**

Printed out instructor given formula sheet and tables(z/t), 2-3 blank scratch paper, pen/pencil and approved handheld calculator. You can use either handheld calculator or Excel for calculation.

You must read the basic rules and instructions of taking MyLab and Mastering Exam under Honorlock this is posted in canvas before initiating exam taking process. Anyone who fail to follow instructor provided rules will receive a score of 0 for that exam with possible further disciplinary measures.

Any (parts of) exams, assignments, reports, or solutions to these, from current or previous semesters, posted to any website not affiliated with ASU will result in academic integrity disciplinary actions against the students posting them and the students using them.

# **Extra Credit**

If you complete your assignment on time, your grade will take care of itself. Any opportunity for extra credit will be offered to the class as a whole, usually as part of a test or exam. **No individual requests for extra credit projects will be considered**.



# GRADE DIDTRIBUTION AND CLASSIFICATIONS:

Category	Weight
Homework	20%
Quizzes	20%
Exam 1	20%
Exam 2	20%
Final Exam	20%
Total	100%

Grade	Percentage
A+	97.0 - 100%
A	90.0 - 96.9%
A-	89.5 - 89.9%
B+	86.0 - 89.4%
В	80.0 - 85.9%
B-	79.5 - 79.9%
C+	76.0 - 79.4%
С	70.0 - 75.9%
D	60.0 - 69.9%
Е	Below 60%

#### **Final Grades**

**A:** Outstanding. Superior. Written work is neat, organized, and demonstrates a mastery of the subject matter for the college level. Meets all course expectations promptly. Shows a clear grasp of concepts and demonstrates the ability to synthesize the material in application settings. Participates regularly and enthusiastically in the classroom.

**B:** Very good. Clearly above average. Written work is complete with only minor flaws and demonstrates proficiency in the subject matter for the college level. Shows an adequate grasp of concepts and demonstrates the ability to relate the material in application settings. Participates regularly and enthusiastically in the classroom.

**C:** Good. Average. Directions followed. Student met minimal expectations for the course. Written work contains minor flaws too numerous to be overlooked. Student shows a reasonable grasp of the subject matter for the college level, but may have difficulty processing the material from class to an application setting. Participates in the classroom.

**D:** Below expectations. Below that which one would normally expect from a student at this level of a college career. Written work is marred by major mechanical problems. Exam performance fails to demonstrate a reasonable grasp of material for the college level. Student fails to participate appropriately in class.

**E:** Unacceptable. Written work consistently falls below college level. Student fails to use appropriate college resources when directed to do so by the instructor. Shows little or no grasp of concepts and is unable to process



or relate material in application settings. Student fails to participate appropriately in class. Student is consistently late in meeting course expectations.

# Failing grades (The E, EN and EU grades)

The E grade is for students who participated in the class but did not earn enough credit to pass or attain the D grade.

The EN grade is for student who never once participated in the class. At the instructor's discretion, any student who has not attended class during the first week of classes may be administratively dropped from the course. However, students should be aware that non-attendance would NOT automatically result in being dropped from the course. Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week. It is the student's responsibility to be aware of their registration status.

The EU grade is for students who participated, but then stopped after a certain point and never resumed.

# The grade of Incomplete

A grade of incomplete will be awarded only in the event that a documented emergency or illness prevents the student who is doing **acceptable work** from completing a **small** percentage of the course requirements. The student must provide written documentation and be passing the class at the time to receive an Incomplete. Makeup final exams will NOT be given for reasons of a non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans. The guidelines in the current general ASU catalog regarding a grade of incomplete will be strictly followed. *The Dean of the student's college must approve any exceptions to these rules*.

# **Grade Appeals**

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the <u>University Policy for Student Appeal Procedures on Grades</u>.

# **HOW TO SUCCEED IN THIS COURSE:**

# **Course Time Commitments**

This three-credit course requires approximately 135 hours of work. Please expect to spend around 12 hours each week preparing for and actively participating in this course. That is about 4.5 hours a day M-F or 3.21 hours per day if you include weekends!! Regimentation is crucial. Some students think that an online class is "no work" since there is no formal class time. The exact opposite is true because the work is compacted and the student must be self-motivated.

# **Getting Help and Tutoring**

Learning statistics and mathematics can be a very difficult endeavor. Do not despair! There are a variety of ways that you can get help:

- · Form Study Groups online: Group work does not have to be only in in-person class session. Feel free to form your own study groups online.
- Discussion Posts: I have set up discussion threads on CANVAS for questions on each chapter. If you have a question, feel free to post in the discussion thread as it might help other students in the class as



well.

- · Email Your Question(s) to Me: I'm always happy to respond to questions via email
- · Attend my Office Hours: Come with any questions you have regarding lectures, homework, quizzes, grades, or even if you just need someone to talk to. I'm here to help!
- ASU Mathematics Community Center and Tutor Center: The Mathematics Community Center (WXLR-303) and the Tutor Center (WXLR-116) are free, drop-in tutoring sites for mathematics and statistics courses. To be admitted, each student must have a valid ASU Sun Card. Information can be found online at <a href="https://math.asu.edu/resources/math-tutoring-center">https://math.asu.edu/resources/math-tutoring-center</a>
- · ASU Tutoring and Academic Success: The various colleges and departments on campus provide counseling, tutoring in math (and many other subjects), supplemental instruction, and other types of support to students. Information can be found online at <a href="https://students.asu.edu/academic-success">https://students.asu.edu/academic-success</a>.

# IMPORTANT COURSE DATES, UNIVERSITY POLICES AND PROCEDURES:

Please be reminded that, deadlines such as add/drop/withdrawal or final exam are not decided by your instructor. **Please refer to the <u>ASU Academic Calendar</u>** for official important dates.

Drop/Add deadline	: Oct 13, 2022
Course withdrawal deadline	: Nov 1, 2022
Complete session withdrawal deadline	: Dec 2, 2022

#### **Course Withdrawal**

A student may withdraw from a course with a grade of W during the withdrawal period. The instructor's signature is not required. It is a student's responsibility to verify that that they have in fact withdrawn from a class.

Note: This course adheres to a schedule and may be part of a sequenced program, therefore, there is a limited timeline to <u>drop or add the course</u>. Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: <u>Withdrawal from Classes</u>, <u>Medical/Compassionate Withdrawal</u>, and a <u>Grade of Incomplete</u>.

# **Instructor-Initiated Drop**

At the instructor's discretion, any student who has not attended class during the first week of classes may be administratively dropped from the course. However, students should be aware that non-attendance will NOT automatically result in their being dropped from the course. Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week. It is the student's responsibility to be aware of their registration status.

# The grade of XE

A grade of XE is reserved for "failure for academic dishonesty." The grade goes on the student's transcript; the student needs to petition to have it removed after 1 year.

# **Final Exam Make-up Policy**

The final exam schedule listed in the Schedule of Classes will be strictly followed. Except to resolve those situations described below, no changes may be made in this schedule without prior approval of the Dean of the



college in which the course is offered. Under this schedule, if a conflict occurs, or a student has more than three exams on one day, the instructors may be consulted about an individual schedule adjustment necessary, the matter may be pursed further with the appropriate dean(s). This procedure applies to conflicts among any combination of Downtown Phoenix campus, Tempe campus, Polytechnic campus, West campus, and/or off campus class.

Make-up final exams will NOT be given for reasons of a non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans.

# **Proctoring During Exams**

Students in face-to-face or online courses taking exams and quizzes at Arizona State University should expect to be proctored. The process includes verifying the identity of the student and providing either live proctors or other forms of proctoring during the exam or quiz. In the case of face-to-face courses, students can be required to show a valid identification card, and expect to be monitored by proctors while taking either an exam or quiz.

Proctoring of online students requires presenting a valid identification card as part of the verification process and monitoring by online proctoring software. ASU contracts with three online proctoring software companies. Each company has been carefully reviewed for software security and the protection of student data and must meet the standards of the ASU Internet Security Office. In addition, any company employee, including proctors, who would have access to student data must have a background check and be finger printed. Students can take exams in any location that has a reliable Internet connection. It is best to select a quiet location where the student can be alone in a room.

# **Academic Dishonesty and Student Ethics**

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, seehttp://provost.asu.edu/academicintegrity.

Any (parts of) exams, assignments, reports, or solutions to these, from current or previous semesters, posted to any website not affiliated with ASU will result in academic integrity disciplinary actions against the students posting them and the students using them.

All internet-capable devices such as computers, phones and smart-watches, etc., are to be turned off and made inaccessible for the duration of an exam. Accessing one for any reason will result in an automatic score of 0 for the exam.

Students are expected to maintain the highest ethical standards at all times and in all dealings and interactions with fellow students, faculty, teaching assistants and staff.

#### **Students with Disabilities**

Disability Accommodations: Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from the Student Accessibility and Inclusive Learning Services (SAILS, formerly called DRC) is required. Disability information is confidential.

# **Establishing Eligibility for Disability Accommodations**

Students who feel they will need disability accommodations in this class but have not registered with the Student Accessibility and Inclusive Learning Services (SAILS, formerly called DRC) should contact SAILS immediately.



SAILS staff can also be reached at: 480-965-1234 (V), 480-965-9000 (TTY). Their hours are 8:00 AM to 5:00 PM, Monday through Friday. For additional information, visit: <a href="https://eoss.asu.edu/drc">https://eoss.asu.edu/drc</a>.

Qualified students who will require accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Prior to receiving such accommodations for our class, verification of eligibility from the Student Accessibility and Inclusive Learning Services (SAILS) is required. Such disclosed information is confidential.

# **Support for First Generation Students**

ASU has resources for first generation students. The First-Generation web pages for resources and tips to support your success. Here is a link to their web page https://fys.asu.edu/first-gen-coaching.

# **Support for Students from Out of State**

ASU has many students who are from out of state. Being away from home and your family can be quite challenging. ASU has resources to help with the transition. <a href="https://fys.asu.edu/out-of-state-students/preventing-and-managing-homesickness">https://fys.asu.edu/out-of-state-students/preventing-and-managing-homesickness</a>

Many Resources for students from Health Care, to Financial Aide, to Student Life, to LGBTQIA: For these resources as well as many, many others https://fys.asu.edu/resources

# **Policy on Threatening Behavior**

All incidents and allegations of violent or threatening conduct by an ASU student (whether on-or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

(Student Services Manual SSM 104–02 "Handling Disruptive, Threatening or Violent Individuals on Campus"):

# Absences or missed assignment related to religious observances/practices

If you will be absent from class due to a religious observance or practice, it is your responsibility to inform the instructor as soon as possible. Your instructor will work with you on alternative and reasonable arrangements for any time missed.

# Absences or missed assignment related to university sanctioned events and activities

If you will be absent from class due to participation in a university sanctioned event/activity, it is your responsibility to inform the instructor as soon as possible. Your instructor will work with you on alternative and reasonable arrangements for any time missed.

# **Course Evaluation**

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available.



#### Inclusion

The School of Mathematical and Statistical Sciences encourages faculty to address and refer to students by their preferred name and gender pronoun. If your preferred name is different than what appears on the class roster, or you would like to be addressed using a specific pronoun, please let your instructor know.

#### Title IX

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <a href="https://sexualviolenceprevention.asu.edu/faqs">https://sexualviolenceprevention.asu.edu/faqs</a>.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <a href="https://eoss.asu.edu/counseling">https://eoss.asu.edu/counseling</a> is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services, <a href="https://goto.asuonline.asu.edu/success/online-resources.html">https://goto.asuonline.asu.edu/success/online-resources.html</a>.

#### **AGREEMENT OF TERMS:**

By remaining registered in the course through drop/add period, you agree to all terms and policies set forth in the syllabus.

The instructor reserves the right to make changes to this syllabus as necessary. Changes will be considered official if they are announced in class, placed as an announcement in Canvas, or sent to you via e-mail to your officially assigned ASU e-mail address.

-End of Syllabus-