STATS 167: Principles of Statistics
Course Code (Section XX) – 3 Credits

Semester:
Day(s):
Time(s):
Classroom:
Instructor:
Office Hours:
Office Location:
Phone Number:
Email:

INSERT Professional Headshot Here

Prerequisite/Co-Requisites: None

Course Description

This course introduces students to the basic concepts and processes of descriptive and inferential statistics. Topics include the collection, organization, and graphical representation of data, measures of central tendency and dispersion, probability, the normal distribution, sampling distributions, confidence intervals and hypothesis testing for population means, and linear regression and correlation. Students will be required to use at TI-83 or TI-84 calculator

Course Goal

Students will understand how statistical inferences are made, and better understand how to question information they are presented with.

Required Learning Tools

Hawkes Learning Access Code

Beginning Statistics Plus Integrated Review Authors: Warren, Carolyn | Denley, Kimberly | Atchley, Emily

Courseware + eBook 978-1-941552-98-8

Courseware + eBook + Integrated Review Guided Notebook 978-1-944894-81-8

The courseware comes with lifetime access and includes the eBook, both of which are required for this course. The Integrated Review Guided Notebook is **highly recommended,** especially for students without a strong math background.

Student Learning Outcomes and Assessment Methods

Learning Outcomes	*Assessment Methods*
Summarize, interpret and analyze qualitative and quantitative data numerically and graphically	Pre-Certification Certification Exam
Analyze normally distributed data	Pre-Certification Certification Exam
Apply basic rules and concepts of probability	Pre-Certification Certification Exam
Use sample data to create statistically valid hypothesis tests and confidence intervals for the mean of the population	Pre-Certification Certification Exam

Grading Policy

Your performance in this course is assessed using multiple, varied methods in the areas listed below within Hawkes Learning Management System and based on the expectations as described in the syllabus. If you do not understand the expectations, it is your responsibility to ask the instructor questions.

Exam 1	20%
Exam 2	20%
Exam 3	20%
Statistics Homework	15%
Cumulative Final Exam	25%
Total:	**100%**

Coursework Expectations

Exams: No exams can be retaken and there is no "extra credit." No exam grade is "dropped." You must be prepared and make your best effort on each exam. Exams are taken on Hawkes Learning during the weeks noted on the schedule. Like all other assignments, they are assigned on Monday at 12:00 AM and due by Sunday at 11:59 PM.

Statistics Homework Assignments: Each week you will be presented with new information and corresponding homework assignments. Use the eBook and Learn section of the courseware to take notes and learn new material. The Pre-Certify option allows you to practice the content. **You must complete the homework online on Hawkes Learning and earn at least an 80% on the Certify portion of each assignment to receive credit.** If you do not earn above an 80% on the Certify portion of any assignment, you will be directed to practice problems that must be completed correctly before you can reattempt to Certify. Any grade of 80% or higher in Certify will receive full credit. Each weekly assignment is assigned on Monday at 12:00AM and due the following Sunday at 11:59PM.

Integrated Review Homework Assignments:
As a support, most chapters have a corresponding integrated review that goes over fundamental math topics for the upcoming content. Students without a strong math background are strongly encouraged (but not required) to purchase and use the corresponding Guided Notebook to help them with the integrate review homework assignments. Note that there are more integrated review sections available for the chapters at the beginning of the semester and less as the course progresses. Integrated Review assignments can be found online in Hawkes Learning and are intended as a support. They are not required.

This section of the syllabus contains a listing with brief descriptions of the assessment methods for this course. They are designed to align with the student-learning outcomes and provide you with varied ways to demonstrate mastery of the course content. ***Additional instructions, course materials and grades are posted to Blackboard***. **All work must be completed in HAWKES LEARNING. You must have a full access code by Class 2 to continue in the course.**

Blackboard

HAWKES LEARNING

Statistics Homework Assignments (15%): Course expectations related to homework focus on demonstrating mastery and application of topics. In this course, you will be assessed based on the following criteria: (a) acting ethically and with integrity, (b) demonstrating foundational knowledge pertaining to the week's topic, and (c) advancing the level and depth of learning.

To earn full credit, be sure to be actively engaged in using Hawkes Software (a)Full Access Code by week 2 of course, (b) logging in for 30-45 minutes daily at minimum, (c) complete Learn sections, (d) demonstrate mastery of topic(s) in Certify mode in Hawkes Learning majority of assignments are 80% for mastery , and (e) use online "Send To Instructor" button for questions in Practice (Pre-Certify) mode.

Exams and Cumulative Final Exam (85%): The purpose of the exam is to confirm mastery of applications of topics. ***Each exam is 20% of your grade and the final exam is 25% of you grade.***

Course Outline / Class Schedule for STATS 167 Online

Week / Date(s)	Topic(s) To be Covered Each Week	Assignments, Quizzes, and Readings to be Completed *on or Before Sunday at 11:59 PM in HAWKES LEARNING*
1	Introduction to Statistics	• Text Sections: 1.1 – 1.3 • Statistics Homework: 1.1 – 1.3 • Integrated Homework: 1.R.1 – 1. R.2
2	Graphical Descriptions of Data and Measures of Center	• Text Sections: 2.1-2.3, 3.1 • Statistics Homework: 2.1-2.3, 3.1 • Integrated Homework: 2.R.1 – 2.R .6
3	Numerical Descriptions of Data	• Text Sections: 3.1 – 3.3 • Statistics Homework: 3.1 – 3.3 • Integrated Homework: 3.R.1 – 3. R. 6
4	Introduction to Statistics, Graphical Descriptions of Data and Measures of Center, and Numerical Descriptions of Data	• Exam 1
5	Probability, Randomness and Uncertainty	• Text Sections: 4.1 – 4.3, 6.1 • Statistics Homework: 4.1 – 4.3, 6.1 • Integrated Homework: 4.R.1 – 4.R.4, 6. R.1
6	Normal Probability Distributions	• Text Sections: 6.2 – 6.5 • Statistics Homework: 6.2 - 6.5 • Integrated Homework: NONE
7	Central Limit Theorem	• Text Sections: 7.1 – 7.2 • Statistics Homework: 7.1 – 7.2 • Integrated Homework: 7. R.1
8	Probability, Randomness, and Uncertainty; Normal Probability Distributions; and Central Limit Theorem	• Exam 2
9	Confidence Intervals for the Mean (σ known) Confidence Intervals for the Mean (σ unknown)	• Text Sections: 8.1 – 8.3 • Statistics Homework: 8.1 – 8.3 • Integrated Homework: NONE
10	Introduction to Hypothesis Testing Hypothesis Testing for the Mean (σ known)	• Text Sections: 10.1 – 10.2 • Statistics Homework: 10.1 – 10.2 • Integrated Homework: 10.R.1 – 10.R.2
11	Hypothesis Testing for the Mean (σ unknown)	• Text Sections: 10.3 • Statistics Homework: 10.3 • Integrated Homework: NONE
12	Correlation Linear Regression	• Text Sections: 12.1 – 12.2 • Statistics Homework:12.1 – 12.2 • Integrated Homework: 12.R.1 – 12.R.3
13	Confidence Intervals, Hypothesis Testing, and Correlation Linear Regression	• Exam 3

Week / Date(s)	Topic(s) To be Covered Each Week	Assignments, Quizzes, and Readings to be Completed *on or Before Sunday at 11:59 PM in HAWKES LEARNING*
14	Weeks 1 – 12 Topics	• Review for Cumulative Final Exam
15	Weeks 1 – 12 Topics	• Final Exam

This syllabus is subject to change at the discretion of the instructor.

Class Policies

Hawkes Learning: Instructions for setting up your Hawkes Learning account is located in Blackboard. Please follow instructions. If you have any questions or need assistance with setting up your account, please contact your instructor via Goodwin Email Only. **To establish attendance, you must complete (certify) in one assignment on or before Sunday at 11:59 pm.** Log in multiple times on or before Sunday at 11:59 pm to complete the assignments due for the week. At bare minimum you should spend 30-45 minutes per day in Hawkes Learning. If you have an emergency that can be documented and need to miss an assignment, contact instructor immediately using Goodwin email account. Hawkes is similar to Blackboard therefore it contains an accurate reflection of your current grade at that point in time.

Blackboard: Blackboard contains class materials such as login to Hawkes Learning, Hawkes TV, formula sheets, and additional course materials. Be sure to ***check Blackboard often*** to stay up to date on announcements, new course materials, and other important information. ***All assignments are completed in Hawkes Learning. Once instructor has reviewed assignments, they will import grades into Blackboard.***

Late Assignments: Deadlines are an integral part of all professional careers. You must manage your time and complete all coursework thoroughly and on time (e.g., pre-certification, certification, and exams). Per department policy, any work submitted to the instructor after the due date will result in a zero for that assignment. Late assignments or make-up exams are not permitted except when there are documented extenuating circumstances (i.e., medical and family emergencies), and the instructor has been notified 24 hours before or after the deadline. In circumstances in which the instructor or Director of the Math department will extend due dates.

Laptops and Computers: Laptops or computers with Google Chrome or Firefox are required for the course.

Course Decorum: We will create a positive learning environment in this course. There is an expectation of respect and professionalism. The professional conduct policy includes, but is not limited to:

1. Abiding by Goodwin's academic integrity policy
2. Actively working on assignments in Hawkes Learning.

3. Planning outside activities to avoid conflicts with the due dates outlined in the syllabus.
4. Demonstrating respect for instructor through appropriate communications (see below)
5. Abiding by Goodwin's academic integrity policies.

 **Communication and E-mail:** Students are expected to communicate in a professional manner (i.e., verbal, written, and electronic). I will send course updates and announcements through Blackboard so please ***check your Goodwin e-mail account regularly***.

Goodwin University Policies and Services

This course adheres to all policies outlined in the Goodwin University catalog.

General academic policies of Goodwin University may be found on the University web site at and in the University catalog at http://www.goodwin.edu/academics/catalogs.asp.

Student services information may be found on the Goodwin University website at https://www.goodwin.edu/student-affairs/ and http://www.goodwin.edu/library/.