STAT 1100Q
Elementary Concepts of Statistics
Fall 2022 - Spring 2023

Bethel High School

UCONN
EARLY COLLEGE EXPERIENCE

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This course is given in cooperation with the Early College Experience Program at the University of Connecticut, ece@uconn.edu, 860-486-1045.

Office Hours: Monday 2:10-3:10 p.m. (or by appointment)

Text: The Practice of Statistics, Starnes & Tabor, 6th ed., Bedford, Freeman & Worth Publishing, 2020

Course Description: Four credits. Standard and nonparametric approaches to statistical analysis; exploratory data analysis, elementary probability, sampling distributions, estimation and hypothesis testing, one- and two-sample procedures, regression and correlation. Learning to do statistical analysis on a personal computer is an integral part of the course.

Attendance: Loss of credit will occur after 10 absences.

Late Work & Makeup Policy: Late homework will not be accepted. If you are absent on the day of a test, you will take it the day you return.

Grading: The UCONN grade will be based as follows:
(Test 1 + Test 2 + Test 3 + Project + 1.5*Final)/550.
Test 1 – Chapters 1-4
Test 2 – Chapters 5-7
Test 3 – Chapters 8-11
Project
Final Exam - Cumulative Exam

UConn uses the following grade scale to determine final course grade:

A	[93,100]	B	[81,85)	C	[72,75)	D	[55,60)
A-	[90,93)	B-	[79,81)	C-	[69,72)	D-	[50,55)
B+	[85,90)	C+	[75,79)	D+	[60,69)	F	[0,50)

The HIGH SCHOOL grade for the course will be based as follows:
Quarter: Total Points (tests, projects, classwork, homework)
Semester: Quarter 1: 45%, Quarter 2: 45%, Final Exam: 10%

Academic Integrity: A fundamental tenet of all educational institutions is academic honesty; academic work depends upon respect for and acknowledgement of the work and ideas of others. Misrepresenting someone else's work as one's own is a serious offense in any academic setting, and it will not be condoned. Sanctions shall include, but are not limited to, a letter sent to the Office of Community Standards of the University, a grade of 0 on the assignment, or a grade of F for the course.

Course Calendar

Week	**Date**	**Textbook**
1	08/29/22-09/02/22	Introduction: Statistics: The Science & Art of Data 1.1 Analyzing Categorical Data
2	09/05/22-09/09/22	1.2 Displaying Quantitative Data with Graphs 1.3 Describing Quantitative Data with Numbers *(09/05/22 - Labor Day)*
3	09/12/22-09/16/22	**Chapter 1 Quiz: Data Analysis**
4	09/19/22-09/23/22	Introduction 2.1 Describing Location in a Distribution
5	09/26/22-09/30/22	2.2 Density Curves and Normal Distributions **Chapter 2 Quiz: Modeling Distributions of Quantitative Data** *(09/26/22 - Rosh Hashanah)*
6	10/03/22-10/07/22	Introduction 3.1 Scatterplots and Correlation *(10/05/22 - Yom Kippur)*
7	10/09/22-10/14/22	3.2 Least-Squares Regression 3.3 Transforming to Achieve Linearity *(10/12/22 - PSAT Day, 10/14/22 - Professional Learning Day)*
8	10/17/22-10/21/22	**Chapter 3 Quiz: Exploring Two-Variable Quantitative Data**
9	10/24/22-10/28/22	Introduction 4.1 Sampling and Surveys
10	10/31/22-11/04/22	4.2 Experiments 4.3 Using Studies Wisely
11	11/06/22-11/11/22	**Chapter 4 Quiz: Collecting Data** **Unit 1 Test – Chapters 1-4** *(11/08/22 - Professional Learning Day***,** *11/11/22 - Veterans Day Observed)*
12	11/14/22-11/18/22	Introduction 5.1 Randomness, Probability, and Simulation
13	11/22/22-11/25/22	5.2 Probability Rules 5.3 Conditional Probability and Independence *(11/24/22-11/25/22 - Thanksgiving Recess)*

14	11/28/22-12/02/22	**Chapter 5 Quiz: Probability**
15	12/05/22-12/09/22	Introduction 6.1 Discrete and Continuous Random Variables
16	12/12/22-12/16/22	6.2 Transforming and Combining Random Variables 6.3 Binomial and Geometric Random Variables
17	12/19/22-12/23/22	**Chapter 6 Quiz: Random Variables and Probability Distributions**
18	12/26/22/-12/30/22	*(12/26/22 - 12/30/22 - HOLIDAY RECESS)*
19	01/02/23-01/06/23	Introduction 7.1 What is a Sampling Distribution? *(01/02/23 - New Year's Day Observed)*
20	01/09/23-01/13/23	7.2 Sample Proportions 7.3 Sample Means *(01/13/23 - Professional Learning Day)*
21	01/16/23-01/20/23	**Chapter 7 Quiz: Sampling Distributions** **Unit 2 Test – Chapters 5-7** *(01/16/23 - Martin Luther King Day)*
22	01/23/23-01/27/23	**Midterm Exam**
23	01/30/23-02/03/23	Introduction 8.1 Confidence Intervals: The Basics
24	02/06/23-02/10/23	8.2 Estimating a Population Proportion 8.3 Estimating a Difference in Proportions
25	02/13/23-02/17/23	**Chapter 8 Quiz: Estimating Proportions with Confidence**
26	02/20/23-02/24/23	Introduction 9.1 Significance Tests: The Basics *(02/20/23-02/21/23 President's Day Recess)*
27	02/27/23-03/03/23	9.2 Tests About a Population Proportion 9.3 Tests About a Difference in Proportions
28	03/06/23-03/10/23	**Chapter 9 Quiz: Testing Claims About Proportions**
29	03/13/23-03/17/23	Introduction 10.1 Estimating a Population Mean 10.2 Estimating a Difference in Means

30	03/20/23-03/24/23	**Chapter 10 Quiz: Estimating Means with Confidence** *(03/22/23 - SAT Day)*
31	03/27/23-03/31/23	Introduction 11.1 Tests About a Population Mean 11.2 Tests About a Difference in Means
32	04/03/23-04/07/23	**Chapter 11 Quiz: Testing Claims About Means** **Unit 3 Test – Chapters 9-11** *(04/07/23 - Good Friday)*
33	04/10/23-04/14/23	*(04/10/23-04/14/23 - Spring Recess)*
34	04/17/23-04/21/23	Introduction 12.1 Chi-Square Tests for Goodness of Fit
35	04/24/23-04/28/23	12.2 Inference for Two-Way Tables 12.3 Inference for Slope
36	05/01/23-05/05/23	**Chapter 12 Quiz: Inference for Distributions and Relationships**
37	05/08/23-05/12/23	Review for Final Exam
38	05/15/23-05/19/23	Review for Final Exam
39	05/22/23-05/26/23	**UCONN ECE Exam**
40	05/29/23-06/02/23	Project (*05/29/23 - Memorial Day Observed)*
41	06/05/23-06/09/23	Project
42	06/12/23-06/16/23	Project