

CENTRAL CONNECTICUT STATE UNIVERSITY
Department of Mathematical Sciences
STAT 200-04: Business Statistics I
Fall2021

READ THIS SYLLABUS CAREFULLY. YOU ARE RESPONSIBLE FOR KNOWING THIS INFORMATION!

Access to all the material for this course is through [Blackboard Learning and MindTap](#)

This course is in person with the use of Blackboard learning and MindTap.

Class meetings: Monday and Wednesday: 8:00am – 9:15 am

Ebenezer D. Bassett Hall 109 (EDB 109) Aug 26, 2021 – Dec 14

In case of any circumstances that we can't hold the class in person

on WebEx at

<https://ccsu.webex.com/ccsu/j.php?MTID=m7ffed358394257b7e9c08fbc5b175d8>

Office Hours: Monday & Wed: 10:40 am– 12:00 pm (EDB-124)

PREREQUISITE MATH 101 (C– or higher) or MATH 102 (C– or higher) or MATH 103 (C– or higher) or placement exam

COURSE DESCRIPTION

This is the first course in statistics for students who are interested in how statistical analyses can be used to answer research questions in business. Our focus will be on some of the most widely used statistical methods that are available in business, how to mathematically represent the phenomenon we are interested in studying, and how data analysis can be used to answer some of our questions

CATALOG DESCRIPTION

Application of statistical methods used for a description of analysis of business problems. The development of analytic skills is enhanced by use of one of the widely available statistical packages and a graphing calculator. Topics include frequency distributions, graphical presentations, measures of relative position, measures of central tendency and variability, probability distributions including binomial and normal, confidence intervals, and hypothesis testing. No credit given to students with credit for [STAT 104](#), STAT 108, [STAT 215](#), [STAT 314](#), or [STAT 315](#).

GOALS

One of the primary goals in this course is to get you familiar with how to interpret and conduct quantitative research. We will introduce notions of descriptive statistics, distributions, probability, and inferential statistics. Other topics may be added based on student interest and background. This course can help prepare you to conduct your own quantitative research, and to become better prepared to understand research done by others.

Course components

- **Textbook**: Modern Business Statistics with Microsoft Excel

David R. Anderson; Dennis J. Sweeney; Thomas A. Williams; Jeffrey D. Camm;
James J. Cochran; Fry, Ohlman

ISBN-13:978-0-357-1313138-1

ISBN-10: 0-357-13138-X

You 'll need to purchase access through Cengage by visiting their website, looking at all options they offer you and choosing the option that you wish to use.

MindTap Purchase Options for STAT 200 Fall 2021

- MindTap includes graded homework, ebook and video access for STAT 200. You will find the link to register for MindTap in the MindTap folder within Course Materials in Blackboard.
- If you have a Cengage Unlimited subscription you will simply login using your existing Cengage credentials.
- If you are new to Cengage, you can create an account after following the link to MindTap.
 - Access is free for the first 7 days.
- You will be able to purchase access directly within your account. The cheapest option is to subscribe to Cengage Unlimited for \$119.99. This provides you with access to all Cengage courses and ebooks. If you are taking more than one course in the fall using Cengage you only need to purchase once.
 - Once you have subscribed you can request a print copy of the text from your account. The rental is free, though shipping is \$7.99.
- If you would prefer to go through the bookstore, you have the option to purchase the looseleaf package with MindTap or a MindTap printed access code.
- Here is a video showing how to register for MindTap through Bb:
<https://www.cengage.com/student-training/mindtap/blackboard/ia-no/>

The information you will need to Access the course on BBL.

- **Homework/ Microsoft Excel on MindTap**

Accessing homework for STAT 200

The homework/ Microsoft for STAT 200 for Fall 2021 will be found in MindTap. The link to MindTap will be directly through Blackboard

- If you have a Cengage subscription, simply login

- If you are new to Cengage access it is free for the first 7 days. You can purchase directly from your Cengage account, or you can find materials in the bookstore.
 - The cheapest option is to subscribe to Cengage Unlimited for 1 semester.
- This video shows the registration process: <https://www.cengage.com/student-training/mindtap/blackboard/ia-no/>

Warning: When accessing your online homework, use **Firefox or Chrome** as your browser; there are problems that can occur if you use Internet explorer or Safari

You have two methods to access your homework through Blackboard:

Method 1: directly from the navigation bar on BBL

- The link to MindTap can be found in by following these steps:
 - Login to Blackboard
Under Course Content
 - Click on MindTap link
 - Click on the MindTap for STAT 200 Folder
 - Click on Stat 200 Fall 2021 MindTap link

Method 2: From each module

- The link to MindTap can be found in learning modules by following these steps:
 - Login to Blackboard
Under Course Content
 - Click on Learning Modules
 - Choose the module you are working on.
 - Either from the module itself or from the left side navigation bar click on chapter assignments and excel folder

There will be homework assignments for each section of the text. Each assignment will be made available on MindTap on the first day of the semester.

There will be Excel project for each section of the text. Each assignment will be made available on MindTap on the first day of the semester.

You will get five attempts for each question that is not multiple choice and fewer than five attempts for each multiple-choice question; the exact number of attempts will depend on the number of choices. After each attempt, you will be told whether your answer is correct or not. If you are not able to get the correct answer after your initial attempts, we recommend that you seek help from your instructor through online office hours, or discussion forum before attempting to answer the problem again.

- **Chapter's Worksheets Assignments on BBL:**

There are **8 Worksheets Assignments**, which need to be solved on paper and uploaded within Blackboard learn. These count towards **9%** of total grade. The due dates are posted in the appropriate folder within **Blackboard Learn**.

A nice Way to upload your written worksheet is using Adobe Scan (optional method)

Here is a link to how to

[How to Use Adobe Scan - YouTube](#)

- **Exams (Online/ in class)**

There will be four exams, each exam consists of two parts:

Online part is 10%

In class part is 4%

Discussion Board (Piazza):

This term we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates and myself.

Rather than emailing questions to the instructor, I encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com.

Find our class signup link at: <https://piazza.com/configure-classes/fall2021/ccsu11279202210?setup=1>

Feedback and response:

You will get immediate feedback on your homework through MindTap. For the worksheets that are submitted feedback will be given within one week of the submission. Exam feedback will be given through announcements in Blackboard. The response time for piazza discussion boards will vary depending on peer-to-peer discussions on topics and instructor feedback. Its recommended that you use course messages if you have a personal question and the instructor will answer those messages accordingly

Topics Covered: Chapters 1 through 9 of this textbook will be covered in this course. See details in the tentative course schedule section.

TENTATIVE LIST OF COURSE TOPICS

- Chapter 1 Data and Statistics
- Chapter 2 Descriptive Statistics: Tabular and Graphical Presentation
- Chapter 3 Descriptive Statistics: Numerical Measures
- Chapter 4 Introduction to Probability
- Chapter 5 Discrete Probability Distributions
- Chapter 6 Continuous Probability Distributions
- Chapter 7 Sampling and sampling Distributions
- Chapter 8 Interval Estimation
- Chapter 9 Hypothesis Testing

Course Requirements: For this course, the expectation is at least 6 hours of work outside of class each week to complete the reading materials and problem sets. However, a general rule for any course is that you are expected to put in at least 3 hours of work outside of class for every “1 hour 15 minutes” in class. You are encouraged to attend all the class secessions. There will be a recorded video of each lecture posted on BBL. You are responsible to complete satisfactorily all the reading material, the content of the text and lectures and all assignments whether you are attending or not. You must complete all H/W assignment on **MINDTAP** before or on the due date. It is essential for understanding the methodology and passing the tests. You are responsible to take all the quizzes

and exams at their scheduled times. You are encouraged to work with others on these problems, and to utilize any resources available.

Makeup Policy: In general, you will not be allowed to make up any exam, quizzes, homework, or worksheet. In circumstances where you have a medical, family or personal emergency which prevents you from submitting your work on time, a proof in the form of doctor’s note excusing you from work (because of medical emergency), or an email from your parent (about family/personal emergency) will need to be provided. If you are an athlete who will miss class time, quizzes, homework, worksheets or exams, you will need to ask your athletic advisor to send an email to your instructor stating the circumstances for the absence.

Zero Tolerance Policy

If a student is caught cheating on any of the assessment components whether it is a single homework, worksheet, piazza or exams regardless of the weight of the assessment towards the final grade, the student shall receive a F for the entire course and will be reported to the community standards office. **No exceptions.**

Grading Assessment: The final grade for this course will be calculated based on the following weights.

Assessment	Method	%
Homework Chapter Assignment and Chapter Interpreting the Results	MindTap (online)	12 %
Excel projects	MindTap (online)	20 %
Worksheets	uploaded on BB	10 %
Participation on Piazza	Online	4 %
Exam1 (Ch 1-3)	Online Sep-08	10 % for online 4% for in class
Exam 2 (Ch 4&5)	Online Oct- 06	10 % for online 4% for in class

Exam 3 (Ch 6&7)	Online Oct- 27	10 % for online 4% for in class
Exam 4 (Ch 7,8&9)	Online Dec- 08	10 % for online 4% for in class
Total		100 %

Evaluation: Minimum averages have been established for each of these grades:
A 93% A- 90% B+ 87% B 83% B- 80% C+ 77% C 73% C- 70% D+ 67% D 63% D- 60%

Important Dates: See the academic calendar at <https://www.ccsu.edu/calendar/>

Withdrawal Policy: November 17/ 2021 Withdraw from full semester courses without approval;" W" will be enter. After November 17 withdrawals are allowed only under **extenuating circumstances** and require approval of the course instructor, department chair, and dean of the School of Arts and Sciences.

Calculator: The TI-83+ or equivalent calculator will be used during this course. This calculator should be brought to each class. You will also be needed for the exams. Note, a TI-83+ is discussed in our textbook, so it is preferred.

Disability Statement:

Please contact me privately to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, or if you have emergency medical information to share. I will need a copy of the accommodation letter from Student Disability Services in order to arrange your class accommodations. Contact Student Disability Services, room 241, Copernicus Hall if you are not already registered with them. Student Disability Services maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with your faculty

University Policies:

You are responsible for understanding and abiding by the University's policy on academic integrity. Information on the policy may be found at <http://www.ccsu.edu/AcademicIntegrity/> . This policy is rigorously enforced by the Department of Mathematical Sciences.

STATEMENT ON DISCRIMINATION, HARRASSMENT, AND MISCONDUCT

Central Connecticut State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon age; ancestry, color; gender identity and expression; intellectual disability; learning disability; mental disorder; physical disability; marital status, national origin; race; religious creed; sex, (including pregnancy, transgender status, sexual harassment and sexual assault); sexual orientation; or any other status protected by federal or state laws.

Any student who has concerns about this should contact the Office of Diversity and Equity (ODE) at 860-832-1652, Student Affairs at 860-832-1601, or his/her faculty member. The ODE is located in Davidson Hall, Room 102.

Central Connecticut State University (CCSU) will not tolerate sexual misconduct against students, staff, faculty, or visitors in any form, including but not limited to: sexual assault, sexual exploitation, sexual harassment or stalking, as defined in CCSU policies. For additional information, please consult the CCSU policies at <http://www.ccsu.edu/diversity/policies/index.html> . All faculty members and staff have a duty to report incidents of sexual harassment including sexual violence to Rosa Rodríguez, Title IX Officer, Office of Diversity and Equity, Davidson Hall, 102.

To file a report, contact: Diversity and Equity (860-832-1652); Student Affairs (860-832-1601);

Student Conduct (860-832-1667) or the University Police (860-832-2375). For support and advocacy, contact: Office of Victim Advocacy & Violence Prevention

(Carroll Hall 248) at 860-8323795 to speak with Sarah Dodd (sarahdodd@ccsu.ed); Student Wellness Services at 860-832-1945 (confidential), the Women’s Center at 860-832-1655, the local YWCA’s Sexual Assault Crisis Services Hotline at 860-223-1787 (confidential) and Prudence Crandall Center for Domestic Violence (confidential) at 888-774-2900 (24-hour hotline).

RESOURCES AVAILABLE

1. If you need help, take advantage of the instructor's office hours. Do not wait until just before the first test to do so.

2. Free tutoring is available in The Learning Center – located in Willard-DiLoreto Hall Room D316. They can be reached at (860) 832-1900. A schedule for the hours the Center is open will be posted soon after the beginning of the semester

3. Form a study group with other students in your section. Explaining solutions to homework problems to each other is a good way to learn. 4. A list of private tutors for hire is available in the Math Department office, Room 128 Marcus White, (860) 832-2835.

Course Contents: The tentative outline of the course is given below (The due dates for some Assignments might change)

Week	Topics	Reading	MindTap Excel	MindTap Assignments	Worksheet Assignments (SUN)	Exams
1 Aug26	Data and Statistics	Chapter 1				

	Descriptive Statistics I: Tabular and Graphical Presentation	Chapter 2				
2 <i>Aug30-Sep 1</i>	Descriptive Statistics II: Numerical Measures	Chapter #2 Chapter 3	2.1 Excel Activity 1 - Frequency and Percent Frequency Tables (Structured) 2.2 Excel Activity 1 - COUNTIF Function (Structured) Due on Sun Sep 5 at 11:59 PM	Chapter 2 Assignment Chapter 2 Interpreting the Results Due on Sun Sep 5 at 11:59 PM	Chapter—2 worksheet Due on Sun Sep 5 at 11:59 PM This assignment has the answers and it is for reading only- so read it and uploaded for grade	
All	All Online assignments	For	Ch 2	Are due	On Sep 5	
3 <i>Sep 6-Sep 8</i> September 6 Labor Day holiday - No classes	Descriptive Statistics II: Numerical Measures	Chapter 3	3.1 Excel Activity 2 - Measures of Location and Quartiles (Structured) 3.2 Excel Activity 1 - Measures of Variability (Structured) 3.3 Excel Activity 1 - z-Scores and Outliers (Structured) 3.4 Excel Activity 2 - Five-Number Summary and Box Plot Construction for Multiple	Chapter 3 Assignment Chapter 3 Interpreting the Results Due on Sun Sep 19 at 11:59 PM	Chapter--3 worksheet Due Sep 19 at 11:59 PM	In class Exam #1 Sep-13 Online Exam #1 Due on Sep 19 At 11:59

			Data Sets (Structured) 3.5 Excel Activity 1a - Association Between Two Variables (Structured) Excel for Ch 3 Due on Sep-19 at 11:59 PM			
All	Online Assignment s	For	Ch 3	Are Due on	Sep 19	
4 Sep13- Sep 15 September 16 - November 17 Withdrawal (no permission required) period for full semester course runs through November 17	Introduction to Probability	Chapter 4				
5 Sep 20 Sep 22	Introduction to Probability	Chapter 4	4.4 Excel Activity 1a - Joint Probability Table (Structured) Due on Sun Sep 26 at 11:59 PM	Chapter 4 Assignment Chapter 4 Interpreting the Results Due on Sun Sep 26 at 11:59 PM	Chapter--4 worksheet Due Sep 26 at 11:59 PM	
All	Online Assignment s	For	Ch 4	Are due on	Sep 26	

6 Sep27 Sep 29	Discrete Probability Distributions	Chapter 5				
7 Oct 4 Oct 6	Discrete Probability	Chapter 5		Chapter 5 Assignment Chapter 5 Interpreting the Results Due on Sun Oct 10	Chapter--5 worksheet Due Oct 10 at 11:59 PM	In Class Exam #2 Oct- 6 Online Exam #2 Due on Oct 10 At 11:59
All	Online Assignments	For	Ch 5	Are due	On Oct 10	
8 Oct 11 Oct 13	Continuous Probability Distributions	Chapter 6				
9 Oct 18 Oct 20	Continuous Probability Distributions	Chapter 6	6.2 Excel Activity 1 - Normal Probability (Structured) Due on Sun Oct 24	Chapter 6 Assignment Chapter 6 Interpreting the Results Due on Sun Oct 24	Chapter--6 worksheet Due Oct 24 at 11:59 PM	Exam #3 Oct-20 Online Oct 24
All	Assignments	For	Ch 6	Are due	On Oct 24	
10 Oct 25 Oct 27	Sampling and Sampling Distribution	Chapter 7	7.2 Excel Activity 1 - Point Estimates for Population Parameters (Structured) 7.2 Excel Activity 2a - Random Sample Selection (Structured) 7.3 Excel Activity 1a - Point Estimates for	Chapter 7 Assignment Chapter 7 Interpreting the Results Due on Sun Oct 31	Chapter—7 worksheet Due oct 31 at 11:59 PM	

			Proportions (Structured) Due on Sun Oct 31			
All	Online Assignment s	For	Ch 7	Are due	On Oct 31	
11 Nov 1 Nov 3	Interval Estimation	Chapter 8	8.1 Excel Activity 1a - Confidence Interval for Mean (Structured) 8.1 Excel Activity 2 - Confidence Interval for Mean, σ Known (Structured) 8.2 Excel Activity 1 - Confidence Interval for Mean, σ Unknown (Structured) 8.2 Excel Activity 3c - Confidence Interval for Mean (Structured) 8.2 Excel Activity 4 - Compare Margins of Error (Structured)			
12 Nov 8 Nov 10	Interval Estimation	Chapter 8	8.3 Excel Activity 1 - Sample Size Calculation (Freeform) Due on Sun Nov 21 at 11:59 PM	Chapter 8 Assignment Chapter 8 Interpreting the Results Due on Sun Nov 21 at 11:59 PM	Chapter—8 worksheet Due Nov 21 at 11:59 PM	

All	Online Assignment S	For	Ch 8	Are due	On Nov 21	
13 Nov 15 Nov 17	Hypothesis Testing	Chapter 9	<p>9.3 Excel Activity 1 - Hypothesis Test for Mean, σ Known (Structured)</p> <p>9.4 Excel Activity 2a - Hypothesis Test for Mean, σ Unknown (Structured)</p> <p>9.4 Excel Activity 2c - Hypothesis Test for Mean, σ Unknown (Structured)</p> <p>9.4 Excel Activity 2c - Hypothesis Test for Mean, σ Unknown (Structured)</p>			
14 Nov 22 Nov 24	Thanksgiving Recess - No classes November 25 - 28					
15 Nov 29 Dec 1	Hypothesis Testing	Chapter 9	<p>9.4 Excel Activity 2c - Hypothesis Test for Mean, σ Unknown (Structured)</p> <p>Due on Sun Dec 5</p>	<p>Chapter 9 Assignment</p> <p>Chapter 9 Interpreting the Results</p> <p>Due on Sun Dec 5</p>	Chapter—9 worksheet Due Dec 5 at 11:59 PM	

			at 11:59 PM	at 11:59 PM		
All	Online Assignments	For	Ch 9	Are due	On Dec 5	
16 Dec 6 Dec 8	Final Exam on Dec 8 8Am-10Am	Stay warm ☺				Exam #4- Final Dec- 8

This schedule is tentative and subject to change

Instructor: Samia Elsafty

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