Central Connecticut State University
Department of Mathematical Sciences

STAT 200-01   Business Statistics I   Fall 2021

Section 01   Tuesday and Thursday   10:50am – 12:05pm
Room: Nicolaus Copernicus (NC) 22404

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

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, 108, 215, 314, or 315.

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.

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.

INSTRUCTOR
Dr. Gurbakhshash Singh
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Phone: (860) 832-2834
E-mail: gsingh@ccsu.edu
Office hours:
       Tuesday & Thursday: 9:40am-10:40am & 1:45pm-2:45pm (MW107)
       Wednesday: 10:00am-11:00am (MW107)
       Other times: By appointment (WebEx or MW107)

RECOMMENDED TEXT
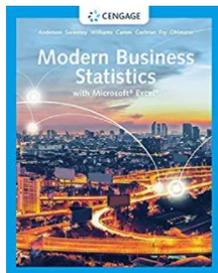
Modern Business Statistics: with Microsoft Excel, Anderson, Sweeney, Williams, Camm, Cochran, Fry & Ohlmann. (7e) by CENGAGE Learning.

GRADES

Grades will be based strictly on the following criteria:

Examination 1 (Ch 1, 2, 3)	(15%)
Examination 2 (Ch 4, 5, 6)	(15%)
Examination 3 (Ch 7, 8)	(15%)
Final Exam (Ch 1-9)	(15%)
Assignment (Best X – 2)	(40%)

The letter Grades are determined as follows:

A	93+	B	83 – 86	C	73 – 76	D	63 – 66
A–	90 – 92	B–	80 – 82	C–	70 – 72	D–	60 – 62
B+	87 – 89	C+	77 – 79	D+	67 – 69	F	0 – 59

In order to be fair to all students, extra-credit work will not be accepted at any time for any reason. **As a general course policy there are no make-ups allowed for missed or late work (this also includes what some refer to as "excused" absences)**. However, if you know you are going to be out on the day when an exam is scheduled, you can speak with me about trying to arrange a time to take the exam in advance. However, if such a request is made at the last minute, there is no guarantee that we will be able to find a time that fits both of our schedule, so taking exams in advance with less than a one-week notice may not be able to be accommodated.

Examinations: All exams are closed book and closed notes. You may use a (graphing) calculator, Excel, Apps (as outlined in class), and a single 8 1⁄2 by 11 inch sheet of notes for each exam. If you miss an exam, you will receive the grade of 0 for that exam. All exams must be taken within the time allotted. Extra time on exams is not available. If students have a documented disability and are allowed extended time on exams, the exam must be taken through the office of Student Disabilities Services. Students are not allowed to share anything during an exam.

The final exam is scheduled for Thursday, December 9, 2021 from 10:30am – 12:30pm. You can use a calculator, Excel, Apps (as outlined in class), and three 8 1⁄2 by 11 inch sheets of notes. If your grade on the final exam is greater than the lowest in-class exam grade, the lowest in-class exam grade will be replaced by the grade you received on the final.

Assignments: Assignments will be posted on Blackboard and you will submit your work through Blackboard. For a missed assignment, the grade of 0 will be recorded. The lowest 2 assignments marks will be dropped when determining the final mark.

If you have so much going on in your life that you are unable to keep up with the workload within the allotted course time, you will need to seriously consider whether you should drop the course and take it at a time when you have less distracting you from your studies.

If you are a student with a documented disability, and would like to request academic accommodations, you are encouraged to contact Student Disability Services (SDS) at 860-832-1952, or email: disabilityservices@ccsu.edu . Please visit the SDS Website at http://www.ccsu.edu/sds/ to download an Intake form and documentation requirements. Once approved, SDS suggests that students discuss their approved accommodations with their professors, as well as any other additional medical emergency needs. Temporary impairments may also qualify for accommodations. Please note that accommodations are not retroactive and must be requested each semester.

I will need a **copy of the accommodation letter** from Student Disability Services in order to arrange your class accommodations. Contact Student Disability Services at: (860) 832-1952, Willard Hall, Room W201, 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 faculty.

Note the last day to withdraw without a 'W' is September 15 and the last day to withdraw without instructor permission is November 17.

COURSE ETIQUETTE
All class participants will act appropriately at all times. I expect that students will work together to create a productive learning environment that includes giving others a chance to speak and respecting the rights and opinions of others. Excessive chatting and interruptions during class is a distraction to others who are trying to learn. Students who are disruptive or who do not act appropriately will be reported to the Office of Student Conduct.

COVID19 (For additional details visit the following website: https://www.ccsu.edu/blueprint/)

1. Getting fully vaccinated: Vaccines are readily available. The Board of Regents that governs CCSU has determined that a vaccine mandate is in force for Fall 2021. The university has organized free walk-up clinics on campus for those not yet vaccinated and is offering the possibility of gift cards as well. For full details: https://www.ccsu.edu/blueprint/get-vaccinated.html

2. Wearing face masks: Protecting ourselves and each other requires measures to prevent the spread of COVID-19, which is an airborne virus. Wearing face masks of an approved character (not scarves or bandanas) significantly reduces both the possibility of someone infected spreading the virus, and others not infected from contracting it. CCSU has adopted a policy requiring the wearing of appropriate face masks by all members of the community, and in particular students and faculty while in class or in buildings. Anyone coming to class without an approved face mask will be required to obtain one at the "mask station"; class will not be held with anyone not-masked.

3. Maintain social distancing:
Social distancing helps in preventing the spread of the virus. In class, we will keep our desks at the designated 3-foot separations and will not move them for group work. Outside of class, please maintain social distancing, even if the door of the classroom is not open when you arrive. When leaving class, students will exit by row. These measures will be taken to respect the social distancing requirement.

4. <u>Getting tested if exposed</u>: If you learn that you have been in contact with anyone who has become infected, you need to get tested to determine if you have also been infected. Testing is free and simple. You can find a testing center (e.g., CVS or Walgreen's) online, or purchase a home testing kit. Do not come to class until you have recorded a negative test result.

5. <u>Isolating if you have symptoms</u>: If you have any symptoms, including flu-like symptoms, loss of sense of taste or smell, or any other symptom associated with COVID-19, you must immediately inform university authorities and follow quarantine procedures and stay home until your symptoms cease and you test negative for COVID-19. If your symptoms are significant, do not hesitate to contact a physician for medical advice and care, or go to a health care clinic near your home.

6. <u>Preparing to go remote</u>: We cannot predict what will happen in the coming weeks and months, including whether the infection rate will significantly increase (or perhaps decline), and what measures the university, and the state may take. In the case where the pandemic spikes to an unacceptable degree, we may go entirely remote—that is to say, fully online. That decision will be made by the university and system authorities, not individually by your instructors. Should we go remote, you will be informed as to how the class will continue online and any other changes that may be required

COMPUTING AND DATA ANALYSIS
Statistical computing and data analysis are an integral part of statistical inference. We will be using Excel throughout the course. Excel is on most CCSU computers and available for download by CCSU students. You can expect there to be assignments that will require you to use this software.

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

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 **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. A list of private tutors for hire is available in the Math Department office, Room 128 Marcus White, (860) 832-2835.

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 should contact the Office of Equity & Inclusion (OEI) at 860-832-1652, Student Affairs at 860-832-1601, or their faculty member. **The OEI is located on the main floor of Davidson Hall, room 119.**

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 policy at https://www.ccsu.edu/diversity/policies/index.html. **All faculty members and staff have a duty to report incidents of sexual harassment including sexual misconduct, intimate partner violence and stalking to Pamela Whitley, Title IX Officer, Office of Equity & Inclusion, Davidson Hall, 119.**

To file a report, contact: Equity & Inclusion (860-832-1652), Student Conduct (860-832-1667) or Student Affairs (860-832-1601). For criminal complaints, contact the University Police (860-832-2375).

For support and advocacy, contact: Office of Victim Advocacy at 860-832-3795; Student Wellness Services at 860-832-1945 (confidential); 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).

ACADEMIC MISCONDUCT
At Central Connecticut State University we value personal integrity as fundamental to our interactions with each other. We believe that one of the purposes of a University education is for students learn to think critically, to develop evaluative skills, and to express their own opinions and voices. We place special weight on academic honesty in all of our intellectual pursuits because it is a value that is fundamental to academic life and scholarly practice. All members of the University community are obligated to uphold high standards of academic honesty in their scholarship and learning. Therefore, we expect students to take personal responsibility for their intellectual work and to respect and acknowledge the ideas of others. Academic honesty means doing one's own work and giving proper credit to the work and ideas of others. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and plagiarism and to avoid all forms of cheating and plagiarism.

What is Academic Misconduct?
According to the Student Code of Conduct and Statement of Judicial Procedures, academic misconduct "includes, but is not limited to, providing or receiving assistance from another, in a manner not authorized by the instructor, in the creation of work to be submitted for academic evaluation (including papers, projects and examinations)."
"Plagiarism is defined as presenting, as one's own, the ideas or words of another person, for academic evaluation, without proper acknowledgment. Plagiarism includes, but is not limited to: (i) copying sentences, phrases, paragraphs, tables, figures, or data directly or in slightly modified form from a book, article, or other academic source without using quotation marks or giving proper acknowledgment to the original author or source; (ii) copying information from Internet Web sites and submitting it as one's own work; (iii) buying papers for the purpose of turning them in as one's own work; and (iv) selling or lending papers to another person for submission by that other person,

for academic evaluation, as his or her own work."

Examples of Academic Misconduct

Exams
- Copying from another person's paper or receiving unauthorized aid from another person during an examination;
- Use of unauthorized materials or devices during an examination or any other form of academic evaluation and grading; e.g., use of signals, notes, books, or calculators during an examination when the instructor has not approved their use;
- Knowingly allowing another person to copy from one's paper during an examination;

Improper Behavior
- Use of another person as a substitute in any form of academic evaluation or acting as a substitute for another person in any form of academic evaluation. e.g., a student cannot have another person take an examination for him/her;
- Acquisition or distribution of improperly acquired examinations; e.g., stealing examinations before the test period or taking a copy of an examination from a testing room without the permission of the instructor; (Examinations which have been distributed by an instructor are legitimate study tools);
- Submission of another's material as one's own for academic evaluation;
- Preparation of work for another student to submit for academic evaluation;
- Unauthorized collaboration in the preparation of materials to be submitted for academic evaluation; e.g., working with another student on an assignment when the instructor has not authorized working together;
- Submission of the same work, or substantially similar work, in more than one course without prior consent of the evaluating instructor(s);
- Disruption in classroom, lab, or research and study areas; any conduct or actions that grossly or persistently interferes with the academic process. (See the CSU, Rights and Responsibilities, "Proscribed Conduct," No. 7, CCSU Student Handbook.)

Falsification or Misuse of Academic Information
- Falsification or misrepresentation of one's own academic record or that of anyone else; e.g., altering a transcript for admission, hacking into the University's computer system and changing a grade, having another student take an examination in one's place, signing someone else's name to an attendance sheet.
- Unauthorized use of information in University computer records or the computer files of other students (see Computer Use Policy);
- Using unauthorized materials or fabricated data in an academic exercise; e.g., falsifying data in a research paper or laboratory activity; conducting research on human or animal subjects without review by the appropriate panel or supervisor.

Plagiarism
- Copying sentences, phrases, paragraphs, tables, figures or data directly or in slightly modified form from a book, article, or other academic source without using quotation marks or giving proper acknowledgment to the original author or source.
- Copying information from internet websites and submitting it as one's own work;
- Buying papers for the purpose of turning them in as one's own work;
- Selling or lending of papers for the purpose of violating academic honesty policies (this may also be an academic crime, see Connecticut General Statutes, §53-392a.)