Course Syllabus

STAT 201: Business Statistics II   **Spring 2019**
Department of Mathematical Sciences

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

***Prerequisite*:** STAT 200 or equivalent with a grade of C- or higher

***Instructor*:** Dr. K.K. Saha
***Office*:**   Marcus White Hall 109
***Phone*:**   (860) 832 2840
***Email*:**   sahakrk@ccsu.edu

***Class Meeting Times*:** Tuesday and Thursday: 1:40 PM – 2:55 PM; Maria Sanford 223
***Office Hours*:** Tuesday & Thursday: 10:05 AM– 11:35 PM; Wednesday: 1:00 PM – 3:00 PM.

***Textbook*:** Statistics for Business and Economics by David R. Anderson, Dennis J. Sweeney, and Thomas A. Williams, South-Western, a division of Thomson Learning, 13th Edition; ISBN: 978-1-337-32544-8

Topics Covered: Chapters 10 through 16 of this textbook will be covered in this course. See details in the tentative course schedule section.

***Course Description*:** Application of statistical methods used for a description and analysis of business problems. The development of analytical skills is enhanced by use of one of the widely available software packages (Excel). Topics include continuation of hypothesis testing, multiple regression and correlation analysis, residual analysis, variable selection techniques, analysis of variance and design of experiments, goodness of fit, and tests of independence.

***Course Objective*:** The main objective of the course is to provide the student with an understanding of the concepts and techniques of general statistical methods used in real life today. A thorough understanding of the collection, presentation, analysis, and interpretation of business data is accomplished through the development of formal analytic skills for recognizing and formulating statistical problems in real life decision making.

***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 2 hours of work outside of class for every "hour" (50 minutes) in class. You are expected to attend and participate in all of the class secessions. If you are going to miss a class for a legitimate reason, please call or e-mail me in advance. You are expected to understand and use the concepts in the first nine chapters of the assigned text. You are responsible to complete satisfactorily all of the reading material, the content of the text and lectures and all assignments whether you are attendance or not. You must complete at least all the odd numbered problems in the sections covered each week. It is essential for understanding the methodology and passing the tests. Note that you are also responsible for completing all even numbered problems. You are encouraged to work with others on these problems, and to utilize any resources available. You are responsible to take all the quizzes and exams at their scheduled times.

Important Dates: See the academic calendar at http://www.ccsu.edu/calendar/

Withdrawal Policy: **After April 22**, withdrawals are allowed only under **<u>extenuating circumstances</u>** and require approval of the course instructor, department chair, and dean of the School of Arts and Sciences.

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%

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

In-class Problems	10%
Online quizzes	15%
Exams I and II	20% and 20%
Comprehensive Final Exam	<u>35%</u>
Total	100%

Attendance and Class Participation: Classroom attendance is viewed as a very important part of the learning process. Students are advised that excessive absenteeism may result in the student being disbarred from the exams. So, attendance will be taken during the class session and **attendance sheet will be given beginning of each lecture, and you will be responsible to sign this sheet; no exceptions**. In addition, you are encouraged to raise questions during class and try to answer questions that being asked during the class session.

As said earlier, regular class attendance is essential. Due to the nature of this class, continuous or excessive absences may result in poor performance in the course. In the event that you must miss a class, please notify me in advance. Students are permitted to have maximum four unexcused and excused absences, including those due to minor emergencies and illnesses. <u>After the 4th absence, you will be penalized as follows: (i) I will subtract 1, 2, and 3 points from your overall course total for the 5th, 6th, and 7th absences, respectively; (ii) I will subtract 4 points from your overall course total for every absence beyond seven.</u> For example, suppose your overall course total at the end of the semester is 90 (A- grade), and you have 6 absences. Then, your overall course total due to 2 additional absences will be 90-1-2=87, and your final letter grade will be B+, instead of A-.

In-class Problems & Homework: Weekly homework assignments will be posted on the **Blackboard Learn**. This will not be collected for grading. However, you must try to solve all assignments in time since <u>there will be given a question from the homework assignments to solve in class. This problem will be graded</u>. See the grading assessment section for the total weight for the problem solving in class. **In-class problems will be collected for grading during Exam 1, Exam 2, and Final Exam. No late submission of in-class problems will be considered; no exceptions**.

Online Quizzes: There will be at least three online quizzes during the semester. The material for quizzes will be announced one week prior to the quiz date. Note that all quizzes will be posted on the **Blackboard Learn**. Quizzes must be taken at any time before the due date – **no make-up quizzes will be given. Note that, if you don't like your grade on the first attempt, then you may take it again (maximum two attempts). The higher of your two grades will be entered as your grade**.

Exams: The two one-period exams will be given based on the material covered in **Chapters (9-11) and (11-14)** in the text. I will announce in advance for any changes in the exam material. Both exams will be closed book, but you will be permitted to bring one sheet of formulas. Note that the solutions may be posted on the course WebCT. The schedules for both exams are as follows:

EXAM-I: February 21st; EXAM-II: April 4th

Final Exam: The final exam will be a 2-hour comprehensive exam based on the material covered in class from **Chapter 10 through Chapter 16** in the text in December as scheduled by the Register as follows:

May 16th at 1:00 PM – 3:00 PM in class

NO MAKE UPS WILL BE GIVEN: If you miss the *quizzes* when they are due a **grade of zero** will be recorded for that quizzes. If you miss one of the *hour exams*, **contact me immediately** (preferably in advance). If you have a **good reason** for not being able to take the test as scheduled, I will substitute your final exam score for that test when computing your final grade. Otherwise a **grade of zero** will be recorded for the missed exam. I will do this only for the first missed test. Subsequent missed tests will be recorded with a **grade of zero**.

Incomplete Grade: An "I" will be assigned if and only if (all must apply) (i) the student is not currently failing the class; (ii) there is no substantial quantity of work yet to be completed; (ii) there is no extra work required of the instructor beyond the normal duties of grading the paper/exam; and (iv) there is no need for the student to attend the class in subsequent terms. An "I" grade must be made up according to the university guidelines.

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.

PC Account: A PC account is essential for this course. Excel will be used for the computer problems.

Cell Phones Prohibited: The use of cell phones during class time or exam for any purpose is prohibited. Make sure to turn off your phone before entering the classroom.

E-mail Policy: Internal Vista email is preferable for this course. E-mail should be used only to provide me with information or to ask a question that requires a brief response – "What did I miss in class today?" does NOT account. For more lengthy discussions, you will be encouraged to raise questions during class or during office hours, or make a separate appointment if necessary. Please note that when you send an e-mail, make sure you put the course number with section or class meeting times in the subject.

Disclaimer: The instructor reserves the right to adjust the scope of the course, including number and timing of exams, as necessary.

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 W201, Willard 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:
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.

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 Stephanie Scapeccia in Student Disability Services at: (860) 832-1952, Carroll Hall,

Rooms 241-246, 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.

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.

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 860-832-3795 to speak with Sarah Dodd {sarahdodd@ccsu.edu}; 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).

All students are expected to demonstrate integrity in the completion of their coursework. Academic integrity 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. Students who engage in plagiarism and other forms of academic misconduct will face academic and possibly disciplinary consequences. Academic sanctions can range from a reduced grade for the assignment to a failing grade for the course. From a disciplinary standpoint, an Academic Misconduct Report may be filed and a Faculty Hearing Board may impose sanctions such as probation, suspension or expulsion.

For further information on academic misconduct and its consequences, please consult the Student Code of Conduct (http://www.ccsu.edu/StudentConduct/codeofconduct.asp) and the Academic Misconduct Policy (http://www.ccsu.edu/AcademicIntegrity/).

Resources Available:
1. If you need help, take advantage of your instructor's office hours. Do not wait until just before the first test to do so.
2. The Learning Center is located in **Room D316, Diloreto Hall.** Free tutoring is available in the Learning Center, and at other locations on campus. A schedule for 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**, 832-2835.

Course Schedule: The tentative course schedule is given below.

Week	Start Date	Topics	Readings
1	Jan 22	Review Hypothesis Testing	Chapter 9
2	Jan 29	Estimation and Hypothesis Testing for two Population Means	Chapter 10
3	Feb 5	Estimation and Hypothesis Testing for two Population Means	Chapter 10
4	Feb 12	Estimation and Hypothesis Testing for two Population Proportions	Chapter 10
5	Feb 19	Hypothesis Tests for one variance	Chapter 11
		Exam-I (Feb 21st)	**Chapters 9-11**
6	Feb26	Hypothesis Tests for two Population Variances	Chapter 11
7	Mar 5	Goodness of Fit Tests Tests of Independence	Chapter 12
	Mar 12	**Spring Recess – No Classes**	
8	Mar 19	Analysis of Variance	Chapter 13
9	Mar 26	Analysis of Variance	Chapter 13
10	April 2	Simple Linear Regression and Correlation	Chapter 14
11		Simple Linear Regression and Correlation	Chapter 14
	April 9	**Exam-II (April 4th)**	**Chapters 11-14**
12	April 16	Multiple Regression Analysis	Chapter 15
13	April 23	Multiple Regression Analysis	Chapter 15
14	April 30	Model Building	Chapter 16
15	May 7	Model Building Review	Chapter 16
		Final Examination **Dec. 16th 1:00 PM - 3:00 PM in class**	**Chapters 10-16**

Cheating: Cheating on any part of an exam will result in an automatic F in the course. Cheating includes, but is not limited to, receiving assistance from a class member or a non-class member on an exam and assisting a class member on an exam.