

CASPER COLLEGE COURSE SYLLABUS
Course Number and Title: STAT 2050-N1 Fundamentals of Statistics

Semester/Year: Fall 2015

Lecture Hours: 5

Lab Hours: 0

Credit Hours: 5

Class Time: NA

Days: NA

Room: NA

Instructor's Name: Brook Russell

Office: NA

Office Phone: NA

Email:
brussell@caspercollege.edu

Office Hours: by appointment

Course Description: Primarily for the students of the life sciences, behavioral sciences, and physical sciences. Includes frequency distributions and graphics, central tendency, dispersion, useful probability models, and basic statistical inference including linear regression and correlation.

Statement of Prerequisites: A grade of C or better in MATH 1000 or MATH 1400, or an ACT Math score of 23 or better, or an appropriate COMPASS Exam score within the past year.

Goal: The primary goal of this course is to gain a working knowledge of the vocabulary, uses, and misuses of both descriptive and inferential statistics.

Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data

Course Objectives:

The students will be able to:

- obtain and interpret summary statistics and graphics.
- verify the assumptions of Normality and EO.V.
- compute probabilities from a stated sample space.
- compute probabilities from a stated population distribution.
- set up interval estimates for population parameters.
- set up and run hypothesis tests for 1 and 2 variable situations, and interpret the result.
- set up Post Hoc CIs and use them to determine the MVD when a hypothesis test rejects the null hypothesis.
- do a 1 variable linear regression, including a test on significance.
- do a one way ANOVA, including the overall F test.
- set up and run chi-squared test for independence hypothesis tests.

Methodology: I have a series of video lectures that are available in Moodle. The notes that I use in the videos are available in pdf format in Moodle. After you watch the videos and take notes you should do the corresponding homeworks. You should print out each homework (again, found in Moodle) and write in your answers. Then, submit your answers into the corresponding Moodle quiz by the due date (late submissions will not be accepted).

There is no required textbook. However, if you would like to have a textbook for your own reference, I recommend any of the Elementary Statistics texts by Mario Triola. Any version (even older editions) should be fine. The bookstore has MyStatLab as an optional resource which gives you access to practice problems and other materials. If you purchase it (which is optional), let me know and I will help you get it set up.

In the videos I use both a TI-83/84 graphing calculator and statistical software on the computer. Because it is cheaper and easier, I require distance students to have a TI-83/84 graphing calculator. If you live in the Casper area you may rent a calculator for the semester from the Casper College Math Learning Center (for a reasonable price).

Evaluation Criteria:

Homeworks: (5%) After watching the video lectures, there are corresponding homeworks for you to do in Moodle. Print out the pdf and write your answers. Then, enter your answers into the corresponding Moodle quiz. All homeworks have the same value regardless of the number of problems. When calculating your grade at the end of the semester, I will drop your lowest homework score. See the course schedule below for due dates. You will be given zero points for any homework that is not submitted in Moodle by the due date (no late submissions will be accepted!).

Unit Exams: (75%) There will be four unit exams to be taken throughout the semester. Each exam counts the same towards your semester grade. The format and time limit for each exam will be announced in advance in Moodle. If your final exam percentage is higher than your lowest unit exam percentage I will replace the lowest unit exam score (percentage) with the final exam score (percentage).

Final Exam: (20%) A combined Unit 5/Final exam will be taken in during finals week. The final is required and must be taken during that time. If your final exam percentage is higher than your lowest unit exam percentage I will replace the lowest unit exam score (percentage) with the final exam score (percentage).

Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

Grading Scale: The traditional grading scale of 90-80-70-60 percent will be used. However, I reserve the right to lower the grade cutoffs.

Required Materials:

- TI-83/84 Plus Calculator (required)

Class Policies: Last Date to Change to Audit Status or to Withdraw with a W Grade is Thursday, November 12th.

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

Academic Dishonesty: (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly. This is also, where you will find course evaluation links during course evaluation periods.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu . The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

Calendar or schedule indicating course content:**Unit 1:**

Unit 1 video lectures are available starting 8/24.

Unit 1 HWs are available starting 8/24 and must be submitted in Moodle by 9/20.

Unit 1 Exam is available starting 9/14 and must be submitted in Moodle by 9/20.

Unit 2:

Unit 2 video lectures are available starting 9/14.

Unit 2 HWs are available starting 9/14 and must be submitted in Moodle by 10/20.

Unit 2 Exam is available starting 10/12 and must be submitted in Moodle by 10/20.

Unit 3:

Unit 3 video lectures are available starting 10/12.

Unit 3 HWs are available starting 10/12 and must be submitted in Moodle by 11/8.

Unit 3 Exam is available starting 11/2 and must be submitted in Moodle by 11/8.

Unit 4:

Unit 4 video lectures are available starting 11/2.

Unit 4 HWs are available starting 11/2 and must be submitted in Moodle by 12/6.

Unit 4 Exam is available starting 11/25 and must be submitted in Moodle by 12/6.

Unit 5:

Unit 5 video lectures are available starting 11/25.

Unit 5 HWs are available starting 11/25 and must be submitted in Moodle by 12/17.

Unit 5 Exam is available starting 12/14 and must be submitted in Moodle by 12/17.