

**PSYCHOLOGY 230**  
**FALL, 2018**  
**email: mdust@ccsj.edu**

**M.C. DUST, Ph.D.**  
**PHONE: (219) 865-1416 (any time)**  
**OFFICE HOURS: by appointment**

## **STATISTICS FOR BEHAVIORAL SCIENCES**

Descriptive statistics, frequency distributions, measures of variation, probability and decision-making, problems of estimation and tests of hypotheses, linear regression and correlation. Emphasis will be placed on the interpretation and application of statistical analysis in the social sciences.

3 Credit Hours

Prerequisite: Mathematics 103

TEXT: Gravetter, F.J. Wallnau, L.B. (2017, 10th Ed.) *Statistics for the Behavioral Sciences*.  
Cenage Learning: Boston, MA.

### **COURSE OBJECTIVES:**

1. To understand the content and process of descriptive and inferential statistics (assessed by quizzes and homework).
2. To show how statistics has a deep impact on diverse modern life, as well as using statistics effectively in everyday life (assessed by quizzes and homework and in-class projects).
3. To help students appreciate how statistics provides the facts behind theories in the social sciences (assessed by quizzes).
4. To acquire critical thinking and analytical skills used in the behavioral and social sciences, to reason statistically= (assessed by quizzes and homework).
5. To help students apply the appropriate techniques in statistics through the use of real life examples (assessed by homework and in-class projects)
6. To help students understand that statistics education is in the middle of a revolution. Show how statistics is used to predict the weather to the stock market.
7. To understand that statistics is a tool for research (assessed by homework).
8. Utilize IBM/SPSS as a statistical tool (homework).

## **STATISTICAL ASSUMPTIONS**

Memorization of formulas is not required, although your professor would hope that some of the more commonly used ones might stay with you. You are expected to know (memorize, if necessary) the assumptions underlying the concepts/techniques discussed in class.

## **MATHEMATICAL BACKGROUND**

Mathematical sophistication is not required, but you should know the four basics of addition, subtraction, multiplication and division. You should also know how to add, multiply, subtract, and divide signed numbers. You should know the order of operations. A calculator is recommended. The calculators recommended are the TI series, such as the 30 II XA. If you already have a calculator with a square root key on it, do not buy a new one. I realize most of you use your phones. THREE DECIMAL POINTS should be used in your computations which should then be rounded back to decimal points.

## **HOMEWORK**

Homework can be completed with fellow students. However, it is never wise to just copy as you will be taking quizzes alone. All work is to be shown. ANSWERS are NOT enough.

In your homework, computational errors will be penalized slightly. In other words, you will be given partial credit if you approach a problem correctly and make an error in computation. Full credit will be given for computational accuracy and the correct approach.

If you do a SPSS assignment (IBM/SPSS), and the data are entered correctly, then the answers are correct. Therefore, it is imperative that you be careful when entering data.

**Homework is NOT accepted late.** If you miss class, you will receive a **A0** for that homework. Plan ahead!

**ATHLETES: If you have a game, homework is to be in my box BEFORE the game.**

**eMail: Homework is NOT accepted via email.**

## **TUTORING CENTER**

Tutoring is open to all students at Calumet College of St. Joseph. (Library). The telephone number is; 219-473-4287.

## **CCSJ ALERT**

There is an emergency communications system that transmits messages via text, email, and voice platform. Those students registered with the system will receive incident specific messages notifying them of the situation.

<http://www.ccsj.edu/alerts/index/html>

In addition, you can check other media for important information, such as school closings:

**Internet:** <http://www.ccsj.edu>

**Radio:** WAKE – 1500 AM, WGN – 720 AM, WIJE – 105.5 FM, WLS – 890 AM, WZVN -107.1 FM, WBBM News Radio 78

**TV Channels:** 2, 5, 7, 9, 32

## **COURSE INFORMATION**

### **Other Useful Texts:**

There are other useful introductory texts in statistics that might be of help, authors such as Aron, Aron, and Coups, Downie and Heath, Sprinthall, and Ferguson, Takane, and Privitera.. For more advanced applications, see authors such as Kirk, Kerlinger and Lee, Cohen and Cohen, and Holland are useful.

### **Attendance:**

Statistics should not be missed. Therefore, students who miss class will be asked to drop the class. If you continue to miss after the drop date, you will receive a **F**. You are allowed the equivalent of 1 week of absence.

### **Tardiness:**

Roll will be taken at each and every class. If you are not in your seat when roll is taken, you will be marked absent. Being late is rude and disruptive to the class and other students.

### **Exiting Class:**

Students are to remain in their seats until class is dismissed.

### **Cell Phones and Electronic Devices:**

**There are NO cell phones or electronic devices, including Computers allowed in class,** except for Quiz days when they will only be allowed to do problems. They are to be turned off and put away. If they are not, you will be asked to leave the class. There will be no texting.

### **Academic Integrity:**

Academic misconduct includes but is not limited to cheating, encouraging academic dishonesty, fabrication, plagiarism, bribes, favors, threats, grade tampering, non-original work, and examination by proxy. If an incident of academic misconduct occurs, the instructor has the option to notify the student and adjust grades downward, award a failing grade for the semester, or seek further sanctions against the student.

### **Disability Services**

Disability Services strives to meet the needs of all students by providing academic services in accordance with the Americans with Disabilities Act (ADA) guidelines. If you believe that you need a “reasonable accommodation” because of a disability, contact the Disability Services coordinator at 219-473-4349. This service is not “retroactive”.

### **Make-Ups**

Make-ups for any exams are at the discretion of the instructor. Do not assume that you will be allowed to make work up. All serious illnesses require a doctor's note.

### **Withdrawals:**

The instructor would appreciate it if you notify her of your withdrawing. Do NOT assume that the instructor will withdraw you! a written request detailing the reason(s) for the withdrawal must be filed with the registrar. The Registrar must receive the written request for withdrawal by the last day of classes prior to the final examination period specified in the catalogue. Phone number is: 219-473-4211 or 773-721-0202, ext. 211. Please make note of the refund schedule.

### **Incompletes:**

Incompletes cannot be given by the instructor for non-attendance or poor grades.

### **Athletes:**

Please notify the instructor if you are an athlete and in what sport.

### **Evacuation:**

In case of an emergency such as a fire, all students are to immediately leave the classroom and the building. The instructor will see that all students have safely evacuated. If you need help, please indicate this to the instructor. Also, please note the placards at the front of the room for emergency situations and procedures to be followed.

**Grades:**

Homework: 65% of the grade.

Quizzes: 35% of the grade

Quizzes: there will be a quiz generally after each chapter. In a few occasions, two chapters will be combined. You may miss 1 or drop one quiz if you take all of them (except the quizzes which combine two chapters). **THERE ARE NO MAKE-UPS!**

**Grading Scale**

**100 – 92 A**

**91 – 90 A-**

**89 – 88 B+**

**87 – 82 B**

**81 – 80 B-**

**79 – 78 C+**

**77 – 72 C**

**71 – 70 C-**

**69 – 68 D+**

**67 – 62 D**

**61 – 60 D-**

IBM/SPSS: this will be the bulk of homework assignments. Consequently, you should have a thumb drive so you can save your work. IBM/SPSS cannot be done except at Calumet College.

You can only PRINT the results at Calumet College as you must have the program to do so.

**SCHEDULE**

August 28	Introduction
August 30	Chapter 1 Introduction to Statistics
September 4	Chapter 1 Statistics/ SPSS/IBM Program
September 6	Chapter 2 Frequency Distributions
September 11	Chapter 2 Frequency Distributions
September 13	Chapter 3 Central Tendency
September 18	Chapter 3 Central Tendency
September 20	Chapter 4 Variability
September 25	Chapter 4 Variability
September 27	Chapter 5 Z Scores: Standardized Distributions
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October 2	Chapter 6 Probability (Pages 159 – 175)
October 4	Chapter 8 Introduction to Hypothesis Testing
October 9	Chapter 8 Introduction to Hypothesis Testing
October 11	Chapter 8 Introduction to Hypothesis Testing
October 16	Chapter 9 Introduction to the “t” Statistic
October 18	Chapter 9 Introduction to the “t” Statistic
October 23	Chapter 10 The “t” Test for Two Independent Samples
October 25	Chapter 11 The “t” Test for Two Related Samples
October 30	Chapter 12 Introduction to Analysis of Variance
November 1	Chapter 12 Introduction to Analysis of Variance
November 6	Chapter 12 Introduction to Analysis of Variance
November 8	Chapter 14 Two-factor ANOVA (Independent Measures)
November 13	Chapter 14 Two-factor ANOVA (Independent Measures)
November 15	Chapter 17 Chi-Square Statistic
<b>November 20</b>	<b>FALL BREAK</b>
<b>November 22</b>	<b>FALL BREAK</b>
November 27	Chapter 17 Chi Square Statistic
November 29	Chapter 15 Correlation
December 4	Chapter 15 Correlation
December 6	Chapter 16 Regression
December 11	Chapter 16 Regression
December 13	Wrap Up