

**PSYCHOLOGY 230  
SPRING, 2016**

**email: mdust@ccsj.edu**

**M.C. DUST, Ph.D.  
PHONE: (219)**

**865-1416**

**HOURS: TUES &  
THURS 11 -12  
TUES & THURS  
3 p.m. 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. (2013, 9th Ed.). *Statistics for the Behavioral Sciences*.

Wadsworth/Cengage Learning, Belmont, CA

### **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.
7. To understand that statistics is a tool for research (assessed by homework).
8. Utilize PASW/IBM 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 XS. If you already have a calculator with a square root key on it, do not buy a new one. **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.(Room 166). The telephone number is; 219-473-4287, Room 166 (in library), or cfrank@ccsj.edu.

## **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/al>

## **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 and Takane. 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. 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 allowed in class.** 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.

**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: 219-473-4212 or 773-721-0202, ext. 211. Please make note of the refund schedule.

You can also contact them at registrar@ccsj.edu or go to Room 119.

Incompletes:

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

**American Disability Act:**

Students with diagnosed disabilities or physical disabilities that interfere with learning should notify the instructor. You can contact them at 219-473-4349 or at aszczepaniksanchez@cccsj.edu.

**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.

**Grades:**

**Homework: 65% of the grade.**

Homework points will vary depending on the assignment.

SPSS/IBM: this will be the bulk of homework assignments. Consequently, you should have a thumb drive so you can save your work. SPSS/IBM 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.

I found some websites where you can buy it. It is good for 6 months.

**<http://studentdiscounts.com/ibmspss22basedownloadgradpack-2.aspx> \$41**

**Also, this website: [www.onthehub.com/spss/](http://www.onthehub.com/spss/) \$55**

**Both of these sites were links from the SPSS/IBM site for students.**

I am not responsible if you go to these sites and purchase it.

**Quizzes: 30% of the grade**

Quizzes: there will be 15 quizzes. You may miss 1 or drop the lowest grade if you do all 15.

14 Quizzes (1 dropped or 1 missed) each 15 points Total 210 points

A = 189 points  
B = 168 points  
C = 147 points  
D = 126 points

**Attendance: 5% of the grade 2 misses = A. More than 2 misses = 0.**

**ATHLETES:** if you have to miss class, you are excused. HOWEVER, I must be notified BY THE COACH. The Coaches have a process for this. I cannot accept you just telling me or your friends telling me. ALSO, if you have an assignment due, it is to be in my box in the mailroom the day it is due.

**SCHEDULE**

**TOPIC**

January 12	Introduction
	Chapter 1 Statistics
January 14	Chapter 1 Statistics
January 19	IBM/SPSS Programming
January 21	Chapter 2 Frequency Distributions
January 26	Chapter 3 Central Tendency
January 28	Chapter 4 Variability
February 2	Chapter 4 Variability
February 4	Chapter 5 Z Scores
February 9	Chapter 6 Probability
February 11	Chapter 6 Probability
February 16	Chapter 8 Introduction to Hypothesis Testing
February 18	Chapter 8 Introduction to Hypothesis Testing
February 23	Chapter 9 One Sample “t” Test
February 25	Chapter 9 One Sample “t” Test
<b>March 1 &amp; 3</b>	<b>SPRING BREAK</b>
March 8	Chapter 10 Independent “t” Test
March 10	Chapter 10 Independent “t” Test
March 15	Chapter 11 “t” Statistic for Related Samples
March 17	Chapter 12 ANOVA
March 22	Chapter 12 ANOVA
March 24	Chapter 14 Two-factor ANOVA
March 29	Chapter 14 Two-factor ANOVA
March 31	Chapter 17 Chi-Square Statistic
April 5	Chapter 17 Chi-Square Statistic
April 7	Appendix E Tests for Ordinal Data
April 12	Chapter 15 Correlation
April 14	Chapter 15 Correlation
April 19	Chapter 16 Regression

April 21

Wrap-up