

**DEPAUL UNIVERSITY CDM**  
**IT 403 STATISTICS AND DATA ANALYSIS (SPRING 2016)**  
**SYLLABUS, CLASS SCHEDULE & POLICIES**

**START AND END DATES:** March 28-June 10, 2016

**LOCATION:**

SECTION 901 CLASS NUMBER 33032	In-class; Wednesdays 5:45 PM- 9 PM CST	Lewis Center, Room 1208
SECTION 910 CLASS NUMBER 33033	Distance Learning Section (online section)	No class room- virtual environment & recorded video

**INSTRUCTOR:**

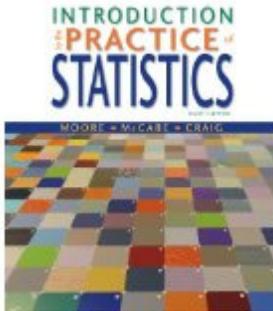
RAY Partha Sarathy Email: [rpartha1@cdm.depaul.edu](mailto:rpartha1@cdm.depaul.edu)

Office hours: 3:45 PM- 5:15 PM CST [Wednesdays]

Office location: CDM 705

**COURSE MATERIALS:**

*Textbook (Required):*



**Moore, D.S., McCabe, G.P., & Craig, B. (2014). Introduction to the Practice of Statistics (8th Ed.). W.H. Freeman (McMillan) Publication.**

Mode	ISBN-10	ISBN-13
Print/Paper Book (your bookstore, amazon.com, ebay.com etc.).	1464158932	978-1464158933
Other Options	eBook (Kindle)	
Rent book from chegg.com	<a href="http://www.chegg.com/textbooks/introduction-to-the-practice-of-statistics-8th-edition-9781464158933-1464158932?trackid=43ebde40&amp;strackid=369daaf0&amp;ii=8">http://www.chegg.com/textbooks/introduction-to-the-practice-of-statistics-8th-edition-9781464158933-1464158932?trackid=43ebde40&amp;strackid=369daaf0&amp;ii=8</a>	

**Supplementary Readings/References** [you are not required to buy these books, if you choose to buy them, you could buy older editions from e-bay or amazon---no need to buy the latest editions]

	George, D. & Mallery, P. (2013). IBM SPSS Statistics Step-by-Step	ISBN-13: 978-0205985517
---	---	-------------------------

**Software (Required):**

MS Excel: Available in the CDM computer labs; Also available to students at a discounted price-contact book store

SPSS: Available in the CDM computer labs; Also available to students at a discounted price- visit one of the following links:

<http://www-03.ibm.com/software/products/en/spss-stats-gradpack>

[http://studentdiscounts.com/?cm\\_mc\\_uid=59650437567314578940199&cm\\_mc\\_sid\\_50200000=1457894019](http://studentdiscounts.com/?cm_mc_uid=59650437567314578940199&cm_mc_sid_50200000=1457894019)

**Calculator (Required):**

Buy an inexpensive non-programmable calculator **WITHOUT** statistical functions (available for less than \$10 at your bookstore, Walmart and/or other stores). *While we will use SPSS and Excel to learn how statistical calculations can be simplified thanks to computers, in homework assignments and exams, students will be required to also do the calculations using formulae and manual methods in addition to using software. This is imperative to ensure students have understood the theory and calculations involved in Statistics. Also some statistical calculations require interpretation and hence there is a manual component of problem solving invariably involved.*

**COURSE DESCRIPTION:**

The aim of the course is to teach data analysis and problem solving using statistical methods and concepts of probability theory. Some key course topics include descriptive statistics, data visualization, an introduction to statistical inference, normal distribution, correlation and regression and hypothesis testing. Other relevant topics will also be covered.

**PREREQUISITE COURSES:**

None. However, students are expected to have an aptitude for mathematics and calculations, understand basic mathematical notations, and be familiar with college algebra concepts. See this link for a good online tutorial:

[http://www.wtamu.edu/academic/anns/mps/math/mathlab/col\\_algebra/index.htm](http://www.wtamu.edu/academic/anns/mps/math/mathlab/col_algebra/index.htm)

**COURSE OBJECTIVES:**

- to assist the students in developing an understanding of data analysis using probability and statistics,
- to teach the students the meaning, interpretation and importance of statistical terminology and calculations,
- to help the students become informed and critical readers of quantitative arguments,

- to teach the students to apply statistical techniques to ‘slice and dice’ data and arrive at meaningful conclusions,
- to help the students gain an appreciation for the role of statistics in empirical research and scientific study,
- to help the students to gain flexible problem-solving skills applicable to unfamiliar statistical settings.

**Homework** – Homework will be assigned each week. The purpose of assigning homework is to get the students to solve at home problems that emphasize the theory and calculations that were taught in class. As any instructor of Mathematics and Statistics will tell you, the more problems you solve in Mathematics and Statistics, the more proficient and confident you will become. Unlike certain other subjects, Mathematics and Statistics need practice in problem solving on the part of the student and cannot be mastered by listening to lectures alone. Homework will also contain problems involving the use of computer software to enable practice with the software. Last but not least, homework will hopefully cause the students to continually revisit the material that was taught in the class and enhance their understanding of the applications of the subject matter. **Homework should be done individually.** Any evidence of copying from fellow students will result in zero points and appropriate disciplinary action. **All homework and activities are due by the date posted in D2L in the appropriate D2L dropbox.** Homework and activities submitted on or before the seventh calendar day after the stated deadline will be graded with a 30% penalty. **Activities and Homework submitted on or after the eighth calendar day after the stated deadline will not be accepted or graded.** Try to submit all homework and activities on or before the stated deadline to avoid losing points unnecessarily.

**Class Participation through Online Discussions** – Students that are registered for the in-class section of this course are expected to participate in-class by making meaningful comments and asking pertinent questions when the instructor tells you to do so. Students that are registered for the distance learning section will participate online in the “discussion board” in D2L. Questions will be posted in the online discussion forum in D2L every week for which the distance learning section students are required to post TWO meaningful responses EACH WEEK BEFORE THE STATED DEADLINE. *Students are expected to compose a thoughtful response to any one of their classmates’ posts AND also post one original and meaningful response of their own.* The student’s own original and meaningful response should contain a direct and specific reference to the assigned weekly reading. The online discussion board in D2L will ‘auto-close’ and ‘auto-lock’ at the stated deadline time and date each week.

**Midterm Exam** – There will be a midterm exam for this course section. The midterm exam may be a proctored exam or a take-home exam at the discretion of the instructor. Details will be announced close to the exam date.

**Final Exam** – There will be a final exam for this course section. The final exam may be a proctored exam or a take-home exam at the discretion of the instructor. Details will be announced close to the exam date.

***Incomplete Grade***- If you cannot take the final exam due to valid reasons such as a medical emergency, illness or family emergency, physical disability etc., you must inform the instructor well in advance (certainly a minimum of one week BEFORE the final exam start date, preferably two weeks before the final exam start date) and seek instructor's permission to receive an incomplete grade. In such situations, you will typically receive an incomplete grade in the course, and we will make arrangements for you to take the final exam in a future term. Absence without prior approval at the final exam will result in your being awarded zero points on the final exam which could lead to a fail grade in the course. Conversations about an incomplete grade will NOT BE ENTERTAINED after the final exam has been administered or after the final exam start date. Incomplete grade requests will be treated on a case-by-case basis depending on the merits of the case. In addition, be aware that all incomplete grade requests require the approval of the associate dean in addition to the instructor's consent and approval.

**FOR A DETAILED COURSE SYLLABUS AND OTHER QUESTIONS, PLEASE CONTACT THE INSTRUCTOR AT: [rpartha1@cdm.depaul.edu](mailto:rpartha1@cdm.depaul.edu) or log into the course home page in D2L.**