

DePaul University
College of Computing and Digital Media
Syllabus: CSC423 Data Analysis and Regression
Cross listed as CSC324 Data Analysis and Statistical Software
(Spring 2016 Quarter)

Instructor: Bill Qualls. Email: bill_qualls@hotmail.com

Day/Time: Mondays and Tuesdays, 5:45pm-9:00pm, Loop, classroom TBA.

Office Hours and Location: CDM635, 4:15pm-5:45pm

Description:

The course topics include: Inference for distributions, inference for a population mean, comparing two population means using paired or independent samples, checking normal assumptions, multiple regression and correlation, analysis of residuals, model selection methods, and logistic regression models. At the end of this course, students will be able:

- to perform data analyses using a statistical software and to interpret the output of their analysis,
- to apply modeling techniques to evaluate the association among variables and predict the values of a variable of interest to be informed and critical readers of quantitative arguments,
- to appreciate the role of statistics in empirical research and scientific study, and
- to gain flexible problem-solving skills applicable to unfamiliar statistical settings.

Prerequisite:

IT223 or IT403 or consent of instructor. Students should be familiar with statistical inference methods, including sampling distributions, confidence intervals and hypothesis testing. A brief review of these topics will be covered in the first lecture of the course.

Course Materials:

REQUIRED: *A Second Course in Statistics: Regression Analysis*, 7th ed., William Mendenhall, Terry L. Sincich, Prentice Hall, 2010 (ISBN: 9780321691699). Please bring text to class every week.

Course materials will be posted at <http://billqualls.com/csc423/> throughout the quarter.

Please make sure your Campus Connect email address is correct so I can communicate with you.

Homework assignments:

Homework assignments will be listed on the course website. Assignments will come from the text. All homework is to be submitted via D2L. Only .PDF files will be accepted. You may SAS or R for your homework assignments: you are encouraged to use both. Excel is not powerful enough for what we do in this course.

Exams:

There will be two exams. One 8.5x11 sheet of paper – one side only – of hand-written notes will be allowed for each exam. You must turn in your notes with your exam.

Course Project:

Each student will be expected to complete a course project. This may be done individually or in groups of no more than three people. This project must make use of regression techniques and tests discussed in this course. Teams (and individuals) will present their projects during the final (eleventh) week of the course. Online students will be required to submit a narrated PowerPoint. More detailed requirements will follow.

Course Grade:

Course grade consists of homework (6-8, total 30%), exams (2, total 40%), and project (30%). Students receiving at least 90% of possible points are guaranteed at least an A-, at least 80% at least a B-, at least 70% at least a C-, and at least 60% at least a D.

Other Information

All students are expected:

- To read this document in full!
- To attend all classes (online students are expected to watch each lecture). If you miss a class, it is your responsibility to watch the lecture recording and to get copies of the notes or documents handed out in class. All lecture recordings are available thru D2L.
- To participate actively to class discussions and activities and to work on the in-class problems and exercises that are designed to improve students' understanding of the class topics.
- To be familiar with all the course documents and notes posted at the course website.
- To read all the sections in the textbook relevant to the lecture before coming to class. The reading assignments are listed in the schedule included in this syllabus. Lecture notes are meant to complement the course textbook NOT TO REPLACE IT.

Academic Integrity and Plagiarism

This course will be subject to the academic integrity policy passed by faculty. More information can be found at <http://academicintegrity.depaul.edu/>.

The university and school policy on plagiarism can be summarized as follows: Students in this course should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work any assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

Withdrawal

Students who withdraw from the course do so by using the Campus Connection system (<http://campusconnect.depaul.edu>). Withdrawals processed via this system are effective the day on which they are made. Simply ceasing to attend, or notifying the instructor, or nonpayment of tuition, does not constitute an official withdrawal from class and will result in academic as well as financial penalty.

Excused Absence

In order to petition for an excused absence, students who miss class due to illness or significant personal circumstances should complete the Absence Notification process through the Dean of Students office. The form can be accessed at <http://studentaffairs.depaul.edu/dos/forms.html>. Students must submit supporting documentation alongside the form. The professor reserves the sole right whether to offer an excused absence and/or academic accommodations for an excused absence.

(For our purposes, this policy applies to exam dates and date of course presentation.)

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: Student Center, LPC, Suite #370, Phone number: (773)325.1677, Fax: (773)325.3720, TTY: (773)325.7296

Incomplete

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. CDM policy requires the student to initiate the request for incomplete grade before the end of the term in which the course is taken. Prior to submitting the incomplete request, the student must discuss the circumstances with the instructor. Students may initiate the incomplete request process in [MyCDM](#).

- All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptions cases will receive such approval.
- If approved, students are required to complete all remaining course requirement independently in consultation with the instructor by the deadline indicated on the incomplete request form.
- By default, an incomplete grade will automatically change to a grade of F after two quarters have elapsed (excluding summer) unless another grade is recorded by the instructor.
- An incomplete grade does NOT grant the student permission to attend the same course in a future quarter.