

**IDS 462—Statistical Software for Business
CRN 26866 & 26867**

Class Hours: Monday 6:00-8:30 pm
Office Hours: Monday 5:00-6:00 or by appointment
Email Address: jspark4@uic.edu
(email is the best way to contact me)
Office Location: 2322 UH; Office hours will be held in classroom

Instructor: John Sparks
Room: TH100
Phone: 312 996 8368 (not recommended)

Evaluation:

Analysis Memos	10% (Factor Analysis) or 20% (Cluster Analysis)
Quizzes (in class)	15%
Homework	15%
Midterm (Project)	20%
Final Project	20 or 30%
Final Exam	10%

Required Text: Applied Statistics and the SAS Programming Language by Cody and Smith, 5th Edition

Topics and Structure of the Course:

This class is designed to teach you statistical analysis and data processing techniques that are used in common business practice and how to run them using standard statistical software. I will focus on the use of SAS because it is the most widely used, and most difficult, program in the business world.

Generally, every two weeks I will teach one new statistical or data processing technique in combination with programming techniques in SAS. The due dates will be as shown in the class schedule on Blackboard under Assignments/Administrative.

Assignments: There will be two main types of assignments that you will turn in. The most important, time consuming and difficult is the memo or project, discussed in more detail below.

Programming Assignments: You will be assigned a programming assignment from the text or other source approximately each week (potentially with accompanying reading in the chapter). This should give you more exposure to the details of SAS programming. The programming for these assignments is intended to take two hours or less. The reading may take you much longer. You should check your work on these assignments thoroughly to make sure you have not made any silly mistakes.

Memos or Presentations: All students will write a total of 3 memos or presentations for the class and one final programming project. For the midterm, final and final programming project you must submit your own memo or project. For the Factor Analysis or Cluster Analysis you may work in teams of two. Please bring me written notice of the members of your team and whether you prefer the factor analysis or cluster analysis memo. I will accommodate as possible, but do not make any guarantees that you will get your choice for the project.

Format for Memos (including midterm): Students are to write me a MEMO regarding the business application of the analysis they have completed. This memo is then to contain a technical appendix that should include any relevant statistical details and a copy of the RELEVANT portions of the output or log printout as necessary. In short, pretend that the first part of the memo is being written for your client who has only very little knowledge of statistics and is not really interested in statistics. He just wants to know how to use the information you have given him for business purposes. For the technical appendix, assume that you are writing for a research reviewer, or your immediate supervisor, who has expertise in statistics, is ALREADY FAMILIAR with the technique you are using, and wants to review your methods for accuracy and correct implementation.

The basic aim is that the first part of the memo explains the implications of the analysis. The second part of the memo demonstrates that the analysis shown in the first part of the memo was done correctly.

Note: DO NOT simply attach all the log and/or output pages to your memo and turn it in. Provide copies of the RELEVANT output in your memo and discuss them in your analysis. If a piece of output does not add to your analysis, then it should not be included with your memo. *I'm not kidding.* Some students like to attach a copy of the actual program to the very end of the memo for documentation purposes. As long as this is noted in the memo, this is fine.

Being able to write up statistical results in business language is a very important—but difficult—skill that will serve you well in the future. I will be tough grader of these memos. Therefore, I will allow you to re-do these memos. For each redo the max you may earn is 95% of the points lost on the previous submission.

This redo policy assumes that you are making an 'honest effort' with every memo that you turn in. If, as an extreme example, you turn in one paragraph and one table when a thorough analysis of the topic would require about a 3 page business memo, then I will give you a zero and you will NOT be allowed to redo it. Also note that if you simply fail to submit a technical appendix then this is not an honest effort. If you find yourself in a bind such that you cannot make an honest effort for the memo, then contact me in advance and we will work something out. I would much rather have you do this than not put an honest effort into the memo. Related, you may not submit a redo in advance of receiving your previous version back from me.

Although you may work together to understand the assignment, you must turn in an individual memo that is your own work where specified above (midterm and final). In other words, you must write up the material in your own words and in a way that demonstrates that you understand what you are writing. If you simply copy someone else's writing and turn it in as your own work then you are cheating and I will take the appropriate disciplinary action in accordance with the academic code of conduct and honor code of the university and college.

Three additional details on this. First, if two (or more) copied assignments are submitted and it is not clear who copied from who, then I reserve the right to punish all parties involved equally. Second, evidence of copying will be submitted to the Director of Graduate studies and/or the department head and/or the committee for academic mis-conduct and the penalty will be set as decided in collaboration between the appropriate parties and the instructor upto and including failure of the class for the first offense of any type of cheating for all parties. So, if you don't want to run the risk of failing the class, then do not give your written assignment or major portions of it to anyone, even if they say they just want to look at it and promise not to copy. Third, two assignments that come in with 1 or 2 words changed in every sentence is sufficiently similar to be investigated for copying.

Turn-In Procedure. All programming assignments and memos must be handed in on paper at the BEGINNING of class AND submitted to Blackboard at the appropriate turn-in slot BEFORE the beginning of class. If the homework is submitted to Blackboard after 6:00 pm on the due date then it will be considered late and I reserve the right to deduct 20% of the grade. If there is any ambiguity as to when you turned in an assignment, the date and time it was submitted to Blackboard will be used as your submission date & time.

One additional note regarding the lectures: This is an upper-level elective and the material you learn here could help you get a job. Therefore, this is not a 'sit in the back and daydream and figure it out later' class. I will periodically ask if you have any questions, and if you don't understand something then you must (must, must) raise your hand and ask for clarification. I will not think that you are slow. If, however, you come to me after class wanting clarification on the same topic that I asked for questions on earlier, then I will think that you are annoying.

Last, since the course only meets once a week, I have to squeeze a lot of material in every class meeting. This frequently requires that I use the ENTIRE class time, so please make every effort to be here on time for the beginning of class.

Some Ground Rules

1. Honor Code. This course and its associated coursework are being administered under the policies of the University of Illinois at Chicago (UIC) College of Business Administration Honor Code. All students are expected to respect and uphold this code. Information regarding this code is available on the University/College web site.

2. Late Homework. The late homework policy is as follows: Late homework will only be accepted by the class following the due date of the homework and with a 20% penalty.

3. Talking in Class. Excessive talking during lecture will not be tolerated. It is distracting to your fellow students and to the instructor. If, during the lecture period, you have a question about the lecture material, then I would prefer that you raise your hand and ask me. Students who persist in talking during lecture classes will be excused from the classroom. *I'm not kidding*.

4. Blackboard. A Blackboard site exists for this class and contains a great deal of important information. Slides for the first lecture were made available on the first day of class. Students are responsible for ascertaining the slides for the remaining lectures from Blackboard. This is highly encouraged, as it will help you to understand the lecture better.

5. Office Hours. I will hold office hours for the hour preceding class either in the lab or in the area outside the lab. If you know that you want to talk to me before class starts, then please send me an email by Wednesday afternoon so that I am sure to make time for you.

6. Turning in Homework. Emailed homework will not be accepted without prior permission.

7. Email. I occasionally send out email to the class that is very important. I will send email from the Blackboard system. You can alter your email address that that system sends to, but the default is your regular university email. You are responsible for changing your email address in Blackboard if you wish to.

8. Getting Help. Don't be afraid to come see me if you need help and don't wait until it is too late. Also, during lab time, don't be afraid to ask the people around you for help. There are many of you and only one of me.

9. Grading. Your grade for the course will be based on the weighted percent of total points possible. I will use a straight scale with 100% to 90% receiving an "A", etc. There will be **NO** extra-credit opportunities, so work hard on the midterm, final and assignments. If you score below 60% then you fail the course.

10. Pre-Requisites: IDS 270 & 371 are required for this course. It is possible to take this course and 371 concurrently, but you should speak with me if you are doing so. If you are not familiar with the basics of statistics, *then this course is not for you*. I can recommend some refresher material, and I have some review material for the class, but **you** are responsible for having a basic background in statistics. A number of assignments to refresh and demonstrate your ability in statistics will be assigned throughout the semester and instructor support for these assignments will be minimal.

11. You are responsible for the content of the class whether you actually attend the class or not.