Psychology 3101 - Research Practicum

Course Outline

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Moodle Page: The official course schedule will be posted on Moodle, if any changes are required (e.g., classes are cancelled), updates will be posted in a revised schedule on Moodle. Students also will receive email about the course from time to time. It is therefore essential that each student's email be correct in Moodle.

Class: Tuesday & Thursday (90 min.)

Self-Directed Lab: Wednesdays (60 min.)

Text: **"**Psychology 303 Course Materials" (Download free from course web site)
"Hyperstat." (Online stats book, a link is provided on the course web site)

Other requirements: You must place some money in an account in order to print in the computer labs. Also, bring a flash drive to save your lab work.

Purpose of the course:

This course is intended to give students practical experience with statistics used most often in psychology and other social sciences. This will assist students in ...

⇒ completing an honours thesis
⇒ preparing for graduate school
⇒ working as research assistants in various disciplines
⇒ evaluating the research to which we are exposed in course work and in the media

Core Objectives:

1. To provide students with the ability to select the appropriate statistical procedure to analyze data.
2. To provide students with the ability to perform basic and intermediate statistical analyses on the personal computer using SPSS.
3. To familiarize students with the correct presentation of statistical results in psychology using APA format.

At the heart of this course are statistical methods for data analysis. The basic questions addressed with respect to each statistical procedure are "What is it?" and "How do I do it?"

Topics and Schedule:

Week	Tuesday: Introduce Topic	Thursday: Examine Results
1	t-test and chi-square	t-test and chi-square results
2	Oneway ANOVA	Oneway results
3	Repeated Measures ANOVA	Repeated Measures results
4	Factorial Two-way ANOVA	Two-way ANOVA results
5	Split Plot ANOVA	Split Plot ANOVA results
6	MANOVA	MANOVA results
7	**Mid term Exam**	Mid term exam results
8	Correlation & Regression	Correlation & Regression results
9	Multiple Regression	Multiple Regresion results
10	Path Analysis	Path Analysis
11	Factor Analysis	Factor analysis results
12	Reliability & ANCOVA	Reliability & ANCOVA results
TBA	Optional review session, a few days prior to the final exam	

Evaluation:

1. Assignments (35%).

The biggest portion of the course marks will be earned from weekly written assignments. Each assignment will be a mini-paper based on the results of a study being examined each week. Each study will focus on a different statistical procedure. The report will include a brief introduction and method, along with a complete results and discussion (total 6 – 9 pages). It is imperative that the report be well written, free from error, and clear in its explanations. The reports should be of sufficient quality to be submitted for publication. All lab work related to the assignment must be present and turned in with the write-up.
Due dates are noted in the course outline. Reports will be due on Tuesdays, at the beginning of class.

- **Late assignments will be penalized 1 point per day late, and will not be accepted for grading if more than 3 days late**. Late assignments still must be completed and added to the assignment portfolio.

2. Assignment Portfolio (5%).

All assignments and lab worksheets must be retained and put into a single book. This portfolio is a record of your accomplishments in the course and evidence of your skill in analyzing data using SPSS. The portfolio must have the correct SPSS results and the worksheets used in lab. It is not necessary to correct the text of the written assignments for the portfolio. ***To receive the full 5 points, all SPSS reports and worksheets must be present and correct.*** Each missing or incorrect assignment or worksheet will reduce the mark for the assignment book by 2 points. This portfolio will be a "mini-manual" for you in the future.

3. Instant Assignments (in class, unannounced, 5%).

There will be 5 instant assignments completed during class time. These are very brief, mini-assignments to test your understanding of the material covered in previous lectures. The instant assignment will present you with SPSS output and require that you answer the research question(s). This will require the ability to properly read and write statistics in APA format, choosing the necessary elements from the SPSS output. Also, the instant assignment will ask for the most appropriate conclusion to draw

from the statistics, selected from a multiple choice list. Students will be given 5 minutes to complete each instant assignment. Instant assignments will be included as an appendix to the assignment portfolio. The purpose of this assignment is to have you review the material from the week before.

4. Midterm Exam (10%)

There will be a midterm exam on the theory and interpretation of t-tests and ANOVA procedures covered to date.

4. Practical Lab Exam (10%).

To test students' ability to use SPSS on their own, a lab exam will be administered. Students will get data to be properly analyzed. Students should be prepared to type data into the computer and do the proper analyses.

5. Final Exam (35%).

There will be a final exam on the material covered in the course. A comprehensive study sheet will be provided. We also will hold an optional review class a few days before the final exam. (Note, this review will be very helpful for you).