The Chicago School of Professional Psychology  
PY 428: Statistics II  
Fall 2012

Instructor: Jehanzeb Cheema  
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Timings: Monday, 12:30pm-3:20pm  
Classroom: 412 North Campus

Course Description
This course is designed to teach students advanced statistical techniques at both the conceptual and applied levels. Students will learn how statistical techniques can be used to answer research questions in Clinical Psychology. Emphasis will be placed on learning to choose the appropriate statistical technique for a given research question and the interpretation of statistics with reference to research hypotheses. Topics covered include complex factorial ANOVA, repeated measures ANOVA, multiple regression, power analysis, MANOVA, and factor analysis.

Homework and Exams
Homework will be assigned regularly and must be submitted at the beginning of the day that it is due. Late homework will incur a score penalty of 20% per day late. No homework will be accepted after the end of lecture on the last day of class. There will be two equally weighted exams. Late exams will not be accepted. Students are expected to use SPSS for homework problems and exams.

Data Analysis Proposal
A data analysis proposal (approximately 4-5 pages in length) is required. It should be based on the students’ dissertation and should contain a statement of the research hypotheses; a description of the methodology including participants, assessment instruments, exact procedure, and research design; as well as a planned data analysis section incorporating at least one of the advanced statistical techniques covered in the class. Even if students are not planning to perform a quantitative analysis to their dissertation, it is expected that they reformulate their research hypotheses and design so that a statistical technique can be executed on hypothetically anticipated data. The proposal should be written up in the appropriate APA style of publication.

Grades will be determined by how well students address each of the following issues:
• Is the chosen research design the most appropriate one to test the research hypotheses?
• Have the proper statistical techniques been selected for the given research hypotheses and design?
• Are the statistics described in sufficient detail?
Tentative Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Due at the beginning of class</th>
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<tbody>
<tr>
<td>1</td>
<td>27 Aug</td>
<td>( t )-Tests for two independent samples, ( t )-tests for two related samples (review)</td>
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<tr>
<td>2</td>
<td>3 Sep</td>
<td>Labor Day - No class</td>
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<tr>
<td>3</td>
<td>10 Sep</td>
<td>One-way ANOVA (review), Running analyses in SPSS</td>
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<td>4</td>
<td>17 Sep</td>
<td>Factorial ANOVA, ANCOVA, Repeated Measures ANOVA</td>
<td>Homework 1</td>
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<tr>
<td>5</td>
<td>24 Sep</td>
<td>MANOVA</td>
<td>Homework 2</td>
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<tr>
<td>6</td>
<td>1 Oct</td>
<td>MANOVA</td>
<td>Homework 3</td>
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<tr>
<td>7</td>
<td>8 Oct</td>
<td>Review for Exam-1</td>
<td>Homework 4</td>
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<tr>
<td>8</td>
<td>15 Oct</td>
<td>Bivariate correlation and simple linear regression (review)</td>
<td>Exam-1</td>
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<tr>
<td>9</td>
<td>22 Oct</td>
<td>Multiple regression</td>
<td>Homework 5</td>
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<tr>
<td>10</td>
<td>29 Oct</td>
<td>Multiple regression</td>
<td>Homework 6</td>
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<tr>
<td>11</td>
<td>5 Nov</td>
<td>Logistic regression</td>
<td>Homework 7</td>
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<tr>
<td>12</td>
<td>12 Nov</td>
<td>Power analysis</td>
<td>Homework 8</td>
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<tr>
<td>13</td>
<td>19 Nov</td>
<td>Factor Analysis</td>
<td>Data analysis proposal</td>
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<tr>
<td>14</td>
<td>26 Nov</td>
<td>Review for Exam-2</td>
<td></td>
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<tr>
<td>15</td>
<td>3 Dec</td>
<td>Miscellaneous Topics</td>
<td>Exam-2 (due at the end of class)</td>
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Grade

The overall grade is based on the following components:

- Homework: 40%
- Exams: 50%
- Data analysis proposal: 10%

Final grades will be based on the following percentage scale:

- A: 93-100
- A-: 90-92
- B+: 87-89
- B: 83-86
- B-: 80-82
- C: 70-79
- F: below 70
Required Texts


Policies and Procedures

Statement of Academic Honesty

The Chicago School expects its students to function within an environment of trust relative to other students, faculty, staff, and administration. Moreover, the School expects all students to conduct themselves ethically, with personal honesty, and with professionalism. Academic dishonesty violates one of the most basic ethical principles in an academic community, and will result in sanctions imposed under the School’s disciplinary system. All incidents of academic dishonesty must be immediately referred to the Department Chair or Associate Department Chair for investigation and intervention. The Student Affairs Committee may be convened to review the student’s situation. Possible interventions and sanctions may include, but are not limited to, developing a remediation plan, placing a student on academic warning, suspending or dismissing a student. Academic dishonesty includes, but is not limited to:

CHEATING: In any form, including but not limited to, giving or receiving aid on tests, giving or receiving test materials prior to official distribution, or collaborating on assignments or exams without instructor permission.

PLAGIARISM: The use or reproduction of another’s work without appropriate attribution. The School expects all students to produce original work in their papers, coursework, dissertation, and other academic projects and to follow appropriate rules governing attribution.

FABRICATION: Inventing information or citations in an academic or clinical exercise.

Student Email and Use of School Technology

Each enrolled student is provided a School-sponsored email account. Students are responsible for all information communicated through email in the same way and to the same extent as if published in hard copy and distributed through other means. Students must regularly check this account for information transmitted by various departments of the School. The School will not direct electronic correspondence from official School email accounts to personal email addresses; students are expected to utilize the institutional email addresses for all electronic communication about School matters.

A student's continued enrollment in this course indicates his or her agreement to allow graded assignments to be returned via the Chicago School email account when necessary. In keeping with FERPA compliance, if a student does not wish to receive graded material over email he or she must make alternate arrangements with the instructor, such as providing self-addressed stamped envelopes to receive graded assignments by mail. No graded material will be left for pick-up or sent to a non-School email account.
Files and email messages that travel using the School’s network are not private. A user’s privacy is superseded by the School’s requirement to maintain the network’s integrity and the rights of all network users. For example, should the security of the network be in danger, user files and messages may be examined under the direction of the Vice President of Administration, or the Director of Information Technology. The School reserves its right, as owner of the network and the computers in question, to examine, log, capture, archive, and otherwise preserve or inspect any messages transmitted over the network and any data files stored on School-owned computers, should circumstances warrant such actions. All members of the community must recognize that electronic communications are by no means secure, and that during the course of ordinary management of computing and networking services, network administrators may inadvertently view user files or messages.

Policy on Disability Accommodation
The Chicago School complies with all laws and regulations regarding the access of disabled individuals to education and works to insure that no qualified student with a disability is denied the benefits of, or excluded from participation in, any School program or activity. Disabled students may request reasonable accommodations including but not limited to adaptations in the way specific course requirements are accomplished, the use of auxiliary equipment and support staff, and other modifications including testing procedures. This request must be accompanied by appropriate documentation that establishes that the student has a specific disability and that supports the accommodation(s) requested. The School reserves the right to select the specific aids and services it provides, as long as it deems they will be effective for the student and do not fundamentally alter the Program or academic standards. Such aids and services are determined on a case-by-case basis in consultation with the student who has identified the need for accommodation. Please see the Director of Student Services regarding requests for accommodation.

Statement on Final Grades
Some courses may use online course management software, such as ANGEL, as a key component in the course experience. Such software may record grades for individual assignments for both the instructor and the student, as well as tabulate a cumulative grade based on the grading criteria for the course. However, the only official source for final grades is the Student ePortal.