PSYC 3101 200
STATISTICS AND RESEARCH METHODS
IN PSYCHOLOGY

Fall, 1998
12:30 - 1:45 TR
MUEN E0046

Professor: Dr. Diane Martichuski
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Phone: 492-4246

Office Hours: 3:20 pm - 3:50 pm TR, 2 pm - 4 pm W, or by appt.

Website for class: Link from http://psych-www.colorado.edu


Teaching Assistants:

Beth Heywood
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Office hours: MR 11-12 (E213B)

Micah Thompson
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email: micah@psych.colorado.edu
Office hours: M 1-3 (E314)

Recitation Sections (You must be registered for one of these):

L210  11:00 - 12:50 M  Muen D346  Micah
L211  9:00 - 10:50 T  Muen D346  Beth
L212  1:00 - 2:50 W  Muen D346  Beth
L213  11:00 - 12:50 F  Muen D346  Micah
L214  1:00 - 2:50 F  Muen D346  Micah

COURSE GOALS AND OBJECTIVES
Students will demonstrate knowledge of basic statistical measures, including
descriptive measures of central tendency, variability, and frequency and probability, and
inferential measures of t-tests, analyses of variance, correlation, linear regression, and chi-
square. Students will also learn to use statistical software. In addition, methods of conducting
research will be addressed.
REQUIREMENTS

1. Students are expected to read the assigned chapters in both books. The chapters in Stanovich should be read BEFORE labs.

2. Five exams will be given. The three (statistics, unit) exams will each be worth 100 points. The lab methods exam will be worth 50 points. The final (comprehensive) exam will be worth 200 points. Students may not share books, calculators, or computers during exams. Makeup exams will only be given in extreme cases, and will occur during finals week (exceptions are students on official university business who should arrange to take the exam early).

In order to assist each individual to perform to his/her potential, it is important for a student to inform the professor of any conditions which may require some modification of seating, testing, or other class requirements/practices.

3. You need a calculator of some kind. It will be to your advantage to get a calculator with statistical functions on it (e.g., $\Sigma X$, $\Sigma X^2$, $\Sigma Y$).

4. Homework assignments: Homework assignments will be due for a chapter the next lab period after we finish that chapter in lab (except when exams fall on the next day). Some homework assignments will be from the textbook; others will require the use of the computer system. Homework assignments total 100 points. You must turn in your own copy, but you can work in pairs.

5. Attendance is required in labs. I highly recommend that you attend all lectures because we will be moving quickly through the material. If you fall behind, it will become increasingly difficult to catch up as the semester progresses. Students who wish to read the paper, sleep, or have private conversations should not come to class.

6. In order to learn material about statistics AND methods, students will primarily discuss statistics in class and methods in lab. Both are needed to conduct valid research in psychology.

GRADING A course grade will be assigned to each student according to the student's percentage of the total course points (650).

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>5 tests (3x100+1x50+1x200)</td>
<td>550 pts</td>
</tr>
<tr>
<td>Homework assignments</td>
<td>100 pts</td>
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<tr>
<td>Total</td>
<td>650 pts</td>
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TOPICS AND SCHEDULE:

**Week beginning: Chapter(s)**

8/24
CLASS: Hurlburt 1, 2  
*Homework (HW)* Ch 1: 1-13, 15-16  
HW Ch 2: 1-2, 4-15, 17, 21-23  
*No recitations (labs) this week*

8/31
CLASS: Hurlburt 3, 4  
HW Ch 3: 1, 2, 4, 6, 8, 9, 12, 14, 18, 27  
HW CH 4: 1(not a), 3 (not a,d), 5 & 6 (measures of CT only), 9, 11, 12, 13, 29 (a and c only)  
*LAB 1 (starts Monday, 8/31) Stanovich 1, 2; work on homework*

9/07
*Labor Day holiday, Monday, Sept. 7*
CLASS: Hurlburt 5, 6  
HW Ch 5: 1 & 2 (not b or d), 6 (d,e,g,h), 9, 11, 15, 16, 18  
*LAB 2 Stanovich 3; work on homework*

9/14
CLASS: Hurlburt 6, 7  
HW Ch 6 (no interpolation required): 1-17, 30 (no eyeball), 34  
*LAB 3 Stanovich 4; work on homework if time permits*

9/21
*Test 1 (chaps 1-6 Hurlburt): Tuesday, 9/22*
CLASS: Hurlburt 7, 8  
HW Ch 7: 1, 5-10, 13, 14 (NOTE: on #9, there are only 150 student scores)  
*LAB 4 Stanovich 5,6; work on homework if time permits*

9/28
CLASS: Hurlburt 8, 9  
HW Ch 8: 1-7, 11 & 12 (no eyeball)  
HW Ch 9: 1-9, 12, 14 (a and b only)  
*LAB 5 Stanovich 5, 6; work on homework if time permits*

10/05
CLASS: Hurlburt 10  
HW Ch 10: 1 & 2 (show 4 steps, do prob with a = .05 and test statistic), 3 (do #2 with s unknown), 4 & 5 & 6 (do 4 steps and test stat only)  
*LAB 6 Stanovich 7, 8; work on homework if time permits*

10/12
*Test 2 (chaps 7-10 Hurlburt): Tuesday, 10/13*
CLASS: Methods lecture (review of Stanovich material)  
*Labs will not meet from Wed 10/14 through Tues. 10/20*
10/19  CLASS:  Hurlburt 11, 12; Methods lecture (between- vs. within-subjects designs, sampling, sources of error)
        HW Ch 11:  (by-hand; computer is optional for ch. 11)
                    2 - 4 (do t-test and draw conclusions only), and 5
        HW Ch 12:  1, 2, 3 & 4 (4 steps, test stat only), 5, 6
                    LAB 7 computer training, work on homework

10/26  CLASS:  Hurlburt 13, 14, Methods overview
        HW Ch 13:  1, 2, 11 (FOR ALL PROBLEMS, do 4 steps, analyze data
                    on computer only, draw conclusions, use Fisher's where
                    appropriate)
                    LAB 8 computer training, work on homework

11/02  CLASS:  Hurlburt 14, 15
        HW Ch 14:  1, 4 & 17 (4 steps, computer, draw conclusions)
                    LAB 9 methods lab test; work on homework

11/09  CLASS:  Hurlburt 15
        HW Ch 15:  4, 13, 16, 22 (FOR ALL PROBLEMS, do computer
                    analysis, draw conclusions)
                    LAB 10; work on homework

11/16  CLASS:  Hurlburt 16
        Test 3 (chaps 11-15):  In class portion - Tues., Nov. 17;
                    Lab portion in lab during this week

11/23  CLASS:  Hurlburt 16, 17
        HW Ch 16:  1, 2, 4, 11 (FOR ALL PROBS: scatterplot, r, test H₀
                    with computer)
        Thanksgiving Holiday, Nov. 26-27
                    LAB 11; work on homework

11/30  CLASS:  Hurlburt 17, 18
        HW Ch 17:  1, 2, 4, 11 (continue ch. 16 - reg line, predict
                    y for x=-4 and predict y for x=15 if there is a
                    significant correlation. Which of these predictions
                    is useless?)
        HW Ch 18:  1, 2, 12 (do stat only, draw conclusions)
                    LAB 12; work on homework

12/07  Review  (last class meeting is Tuesday, Dec. 8)

5/07-5/13 Finals week  FINAL EXAM:  Monday, Dec. 14, 3:30 - 6:30 pm

NOTE:  The final exam will take place on the final exam day, Monday, Dec. 14, in the lab
        (D346) at one of the following times:  8 - 10 am, 10:30 - 12:30, 1 - 3 pm, 3:30-5:30 pm, or 6 - 8
        pm.