PLAN OF THE COURSE

The semester will be roughly divided into two sections: Part I from January 12 through March 7, and Part II from then until the end of the semester (April 27). In Part I, we will cover the concepts and techniques which are basic to statistics and the research process. A "mastery exam" over these concepts will be given at the end of Part I. In Part II (after you have passed the mastery exam), you will be given opportunities to follow your own interests in participating more fully in the research process.

PART I

Assignments: There will generally be a reading assignment from the textbooks for each class and assigned exercises for each lab meeting. Lab assignments will be distributed Thursdays in class and are due at the beginning of the next lab meeting. **No late lab assignments will be accepted for any reason!**

Class time will be spent reviewing the reading material, considering additional examples and applications, answering questions you have, and considering applications to research you might do yourself. You should read carefully the text assignment BEFORE coming to class.

Lab time will be spent reviewing your completed problem assignments, answering your particular questions, learning how to use the computer, and participating in various group activities and demonstrations. Each of the six lab assignments will be worth five points. Your two worst scores will be discarded so only your four best lab scores will be used.

Quizzes: There will be short quizzes worth five points each on Thursday, January 26 and Thursday, February 9. The primary purpose of these quizzes is to give you feedback on your performance so that any serious problems you may have can be corrected before the mastery exam. **No make-up quizzes will be given for any reason.**

Mastery Exam: February 28 and March 2 will be devoted to the Mastery Exam. On February 23 we will have an in-class review for the exam. The test will have two parts, one closed-book and one open-book, worth 60 points each. The exam will cover all text assignments, lecture, and lab material.
PSYCHOLOGY 2101:
Introduction to Statistics in Psychological Research
Spring 1989

Section: 020  Time: 12:30-1:45 T,Th  Room: E0046 BioPsych

Instructor: Gary McClelland
D364C Muenzinger, 492-8122
Messages at 492-8122 or 492-6333
Office Hours: 1:30-3:30 Monday and by appointment

Teaching Assistants (office, phone, office hours):
   Michael Dineen  D357D Muen.  492-6333  10-11:30 W
   Susan Kraus    D347A Muen.  492-8170  2-3:30 Th
   Tim Ramsey    D320D Muen.  492-8805

Labs:  L210  11-12:50 M  E130 Muen  Tim
      L211  2-3:50 T   E130 Muen  Susan
      L212  11-12:50 W  E130 Muen  Susan
      L213  2-3:50 Th  E130 Muen  Michael
      L214  9-10:50 F  E130 Muen  Michael

Book: Package of Readings, Available at Kinko's on the Hill, Request packet CU-134.
      Ryan, Joiner, Ryan. Minitab Handbook. (available at bookstores)

NOTE: Please read this syllabus very carefully and keep it for future reference. We will assume that you know the dates and times listed and we will hold you responsible for them.

GOALS OF THE COURSE

The primary goal of this course is to acquaint you with all aspects of the research process in psychology: why empirical research is necessary, posing the question, designing an experiment or survey, collecting data, doing statistical analyses, and finally, interpreting the results to answer the original question and to pose new ones. We hope that throughout the course you will become acquainted with these aspects in two ways: by reading and hearing about them from the textbooks and lectures—the usual ways—and, more importantly, by participating in the research process yourself.
Grading: You must earn 110 or more points to pass Part I, and you must pass Part I to pass the course. The points come from the following sources:

<table>
<thead>
<tr>
<th>Source</th>
<th>Points Possible</th>
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<tbody>
<tr>
<td>Lab</td>
<td>20 points</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10 points</td>
</tr>
<tr>
<td>Mastery Exam</td>
<td>120 points</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150 points</strong></td>
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<tr>
<td><strong>Passing</strong></td>
<td><strong>110 points (75%)</strong></td>
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You may take the Mastery Exam (but not the quizzes or lab assignments) as many times as necessary for you to pass Part I. Note, however, that you will be better off if you pass the first time because participation in Part II activities depends on mastery of the Part I concepts. If you have not earned 110 points by March 7, you MUST follow the schedule below for re-taking the mastery exam:

Wednesday, March 11, 7 PM, review session (room to be announced).  
Thursday, March 12, 7-10 PM, second try at mastery exam.

The second and later administrations will not be exact duplicates of the first exam, but will cover the same material. Please note these dates and times NOW, because everyone not passing Part I for any reason will be expected to take the exam then.

If you fail to earn 110 Part I points after the second administration, you will be given special work and help. Further re-administrations will be individually scheduled. You MUST pass Part I on or before Thursday, April 20 to pass the course.

NOTE:

The mastery exam system is designed to put less pressure on you and to let you spend your time on learning rather than on worrying about your grades. However, you must help make it work. If you are getting low quiz or assignment scores, or not understanding the lab or class material, or feeling lost in any way, see one of the instructors IMMEDIATELY!! We won't bite and our goal is the same as yours--increasing your understanding and getting you through the course. We really do want you to succeed!
PART II

This section of the course is designed to meet several diverse goals:

- practical experience in design, analysis and interpretation
- practical experience in collecting data from real subjects
- develop skills in library research and in understanding the research of others
- provide an opportunity for you to determine your own grade by participating in many or few of the above activities
- provide an opportunity for you to follow your own interests by choosing topics and means within the above goals

The structure that has been planned to meet these goals is briefly described below. It consists of several independent elements, all operating more or less simultaneously throughout the remainder of the semester. Certain combinations of these elements are required for each grade. Each element will be graded pass/fail with opportunity for one additional try should you fail on your first attempt. The elements are listed briefly below and will be described in greater detail in a subsequent hand-out as the time for Part II approaches.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Part I</th>
<th>Eval</th>
<th>EXPERSIM</th>
<th>Library</th>
<th>Data Collect</th>
<th>2nd EXPERSIM</th>
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Brief Description of Elements

Part I: earning 110 points from lab + quiz + mastery exam before April 20.

Evaluation: attend class on April 25 and 27 (last two days of class); no advance preparation is necessary for this activity but attendance is mandatory!

EXPERSIM is a system of computer programs that simulates experiments. There are four available research topics within EXPERSIM—motivation, social facilitation, imprinting, and schizophrenia. Within the context of these topics you will design experiments, collect data via EXPERSIM, and analyze it. EXPERSIM will serve as your research assistant. After you design your experiment and tell EXPERSIM what to do, it will
provide you with realistic data as if it had actually performed the experiment. Thus, it will take you only a few minutes to collect data that would normally require months to gather. This will allow you to spend your time on the design and analysis phases of the research process.

Each EXPERSIM activity consists of a series of three related experiments on one topic. A write-up of the whole series and an individual conference on your work are required to pass the activity. (For a C, only one EXPERSIM experiment is required, rather than a series of three, and no conference is required.) If you do a second EXPERSIM series it MUST be on a different topic.

**Library:** learning how to utilize library resources and constructing an annotated bibliography of journal articles on one topic.

**Data Collection:** So that you do not leave this course thinking data collection is as easy as EXPERSIM you will do an activity which will involve collecting data from real subjects. You will then analyze the data and write a brief report.