Instructor Information
Instructor: Meng Zhang (Alice), MS (first half of the course); Sarah Edwards, MS (second half of the course)
Office: W289 Lagomarcino Hall
e-mail: mzhang@iastate.edu, edwardss@iastate.edu. Please use email for all communications, and make sure you email the right instructor depending on what week in the semester we are (Alice: weeks 1-4; Sarah weeks 5-8). Please email all questions regarding exams or quizzes at least 24 hrs in advance so I have enough time responding.
Office Hours: Alice: Wednesdays noon – 3p, and by appointment; Sarah: Tuesday noon-2pm and Friday noon-1p

Course Information
Prerequisites: Statistics 101

Textbook(s)

Bring to class: A non-programmable scientific calculator (~ $10 at Walmart). You will not be permitted to use a programmable calculator on any quizzes or exams!

Course Objectives:
Psych 301 is, arguably, the most important course in the undergraduate psychology curriculum. The ability to understand how research is designed and interpreted is essential for any psychology major or minor, and knowledge of research methods will enhance the student's ability to examine the research presented in content courses. A major emphasis of the class is on statistical analyses of data: knowing what statistical test is appropriate for a data set, knowing how to perform the test, and knowing how to interpret the results of the test. The principal goal of the course is to give the student the tools needed to critically analyze empirical psychological research.

Grading and Examinations:
Daily note taking quizzes, open notes (but not open book):
We will have a short quiz (usually 2 questions) at the end of every class period. These quizzes are designed to encourage you to take good notes during class. Daily quizzes cover the lecture on the day of the quiz. You will be able to consult you own, handwritten notes you have made during class to answer these quiz questions. You will not be allowed to use the book or any prewritten materials to answer the questions. There will be a total of 30 daily quizzes during this class. I will drop your lowest three scores before computing the average of your daily quizzes. The average of your daily quizzes will make up 20 % or your final course grade.
End of week quizzes:
We will have end of week quizzes on the Fridays we do not have exams. These quizzes will be about 15 minutes in length and cover material of the preceding four days. These quizzes are closed book, and will be mostly fill in the blank and multiple choice questions, with a couple short answer questions. You may be required to do some computations during quizzes, so make sure to bring your calculator. The average of your end of week quizzes will make up 30% of your final course grade.

Exams:
We will have four exams during this course. The exams will consist of multiple choices, fill in the blank, short answer, and longer answer questions. You will be required to do some computations during exam, so make sure to bring your non-programmable calculator. Exams will not be comprehensive, but a lot of the statistics you learn in this class will build on each other, and you will have to be able to do simpler calculations learned earlier in the semester to successfully complete problems on later exams. The average of your exams will make up 50% of your final course grade.

Bonus points:
There will be several opportunities to earn bonus points in this class. You will be able to earn no more than 5% of your final grade in bonus points. There are at least four ways to get bonus points: (1) extra credit question on each exam, (2) extra credit from participation in studies, (3) 1 pt extra credit when less than 75% of students were attending class, (4) making up points from handing in a corrected version of the exam.

Assignments:
There will be some formal and informal assignments. None of the assignments are required. You may hand in some formal assignments for bonus points. Informal assignments would be readings or practice for the quizzes. It does not mean that you can ignore those assignments. You should take them seriously if you want to get a good grade in the quizzes and exams.

Final grades
Grades will be based on the best 27 out of 30 daily open-notes quizzes, four end of the week quizzes, and four examinations. **Students will be able to earn half or their lost points back on exams by handing in a corrected version of their exam within three days after the exam was discussed in class.** Daily quizzes will account for 20%, end of week quizzes for 30%, and exams for 50% of your final grade. The table below shows the percentages needed to guarantee each grade:

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<th>Percentage</th>
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<td>88-89.99%</td>
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<td>83-87.99%</td>
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<td>80-82.99%</td>
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<td>70-72.99%</td>
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Missed Classes/Exams/Quizzes Policy:
Class attendance and daily quizzes:
Class attendance is not mandatory, but strongly encouraged. If you do not wish to attend class, but would like to take the daily quiz at the end of class, please be there 6 minutes before class ends and wait in the hallway until the quiz is about to start, so you do not disturb your classmates by walking into class during lecture.
You will not be able to make up daily quizzes that are missed. I will however drop your three lowest daily quiz scores before computing your final grade, so you could miss up to three daily quizzes without penalty.

Missed end of week quizzes and missed exams:
If you miss an exam or quiz due to illness, funeral, or other documented emergency (please e-mail me to get permission for any emergency other than sudden illness or funeral), the exam or quiz must be made up at my office not later than one week after the exam or quiz was given (unless there are exceptional circumstances which should be discussed with the instructor as soon as they are foreseeable). Wanting to go home a day early to spend time at the lake and similar vacation endeavors are not documented emergencies and will not allow you to make up a missed examination! Please bring documentation (e.g., doctor's note or funeral program) to verify the cause of your absence. If you cannot make up the missed exam/quiz in the week following the exam or quiz or if you do not have documentation to verify the cause of your absence, you must take a zero on the exam or quiz.

Disability Accommodations:
If you have a documented disability that requires accommodations, please contact the Disability Resources office on the main floor of the Student Services Building, Room 1076 (phone 515-294-6624) to obtain a Student Academic Accommodation Request. Please contact the instructor as soon as possible in the semester if you have a documented disability and need accommodations.

Tentative Class Schedule

Weeks 1 and 2 (May 18th to May 29th)
Scientific method, observation validity and methods, experimentation, population and samples, variability and measurement, frequency distributions, central tendency, and standard deviation and variance.
Chapters 1-4 as announced in class, and additional reading handouts.
Exam on May 29th

Weeks 3 and 4 (June 1st to June 12th)
z-scores, probability, distribution of sample means, introduction to hypotheses testing, independent and related samples t-tests, statistical power.
Chapters 5-11 as announced in class.
Exam June 11th

Weeks 5 and 6 (June 15th to June 26th)
One-way ANOVAs, post hoc tests, internal and external validity, confounds, 2-factor designs, interactions and main effects, repeated measures ANOVA, sample size requirements.
Chapters 13-15 as announced in class, and additional reading handouts.
Exam June 26th

Weeks 7 and 8 (June 29th to July 10th)
Correlational designs, Pearson correlations, simple regression, introduction to multiple regression, use of non-parametric statistics, chi square, Mann Whitney U statistic, Wilcoxon, Kruskal Wallis, and Friedman tests.
Chapters 16-20 as announced in class.
Final Exam July 10th