STAT 2450: INTRODUCTION TO STATISTICAL ANALYSIS I

General Information:
Term: Autumn 2013
Institution: The Ohio State University
Credit Hours: 3cr.
Course meets TR 1:50-2:45p.m. in Hagerty 180—supplemented by a 1-hour recitation.
Prerequisite: Completion of a calculus course (e.g., Math 1131, 1151, 1156, etc…).

Coordinator: Dr. Jonathan R. Baker
Office Information: 419 Cockins Hall; 688-4546
Office Hours: TR 10a-12n, or by appointment
E-mail: baker.375@osu.edu

Learning Resources:
JMP (Software): JMP is the statistical software we will use in this course. JMP is free for you to download and similar to statistical packages you are likely to see later. Your TAs will use JMP during recitation as appropriate. Be prepared to use it as appropriate on your own for homework. To install JMP on your computer, click on “Order Services” at [https://osuitsm.service-now.com/selfservice/](https://osuitsm.service-now.com/selfservice/) log in, click on “Site Licensed Software Request,” and select the version of JMP that is appropriate for your computer.
Calculators: Graphing calculators are accepted during exams. Other electronic devices are prohibited.
Electronic Devices: As a courtesy to fellow classmates, all cellular phones and other electronic devices must be silenced (not just placed on vibrate) during lectures and recitations. Your engagement with the class will require an attentive mind and both hands to be free for note-taking. As officials of the university, TAs and lecturers can request that students place these devices out of plain view if their usage is deemed irrelevant to instruction.

Your Support System:
Lectures: provide the overarching view of the clusters of concepts.
Recitations: will reinforce and extend content covered in lecture. Expect to be an active participant in these sessions. They convene Fridays 11:30a, 12:40p, or 1:50p in EA 265, 275, or 285.
Tutor Hours: provide you with additional support on a walk-in basis.
Virtual Communication: In order to protect your privacy, all course e-mail correspondence must be done through a valid OSU name.n account. Expect a 48-hour response time when communicating with TAs and lecturers. We are here to support you, but just not quite in a true “on-demand” sense.
**Vision, Commitment, Purpose:**

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<tr>
<th>Personal Vision Statement for STAT 2450:</th>
<th>Personal Commitment to STAT 2450:</th>
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<tr>
<td>By successfully completing STAT 2450 I will:</td>
<td>To successfully complete STAT 2450, I must:</td>
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**The University’s Vision for your completion of STAT 2450**

**College of Arts and Sciences General Education (GE) Goals & Expected Learning Outcomes:**

**Goals:** Students develop skills in drawing conclusions and critically evaluating results based on data.

**Expected Learning Outcomes:** Students understand basic concepts of statistics and probability, comprehend methods needed to analyze and critically evaluate statistical arguments, and recognize the importance of statistical ideas.

**Course Objectives:**
- To enable you to use statistical tools for presentation and descriptions of data
- To enable you to correctly apply probability rules and counting techniques.
- To enable you to understand the use of sampling distributions as the foundation of inference
- To enable you to analyze data through linear regression, confidence intervals, and hypothesis tests
- To enable you to use your knowledge of calculus to conceptually understand its role in computing probabilities.

**Dr. Baker’s vision for your completion of STAT 2450**

Statistics is the science of collecting, organizing, analyzing, and interpreting data.

You will become proficient in these components.

You will become comfortable with using data analysis software.

You will conceptually understand situations involving random phenomena.

You will interpret findings and improve your ability to justify your results.

Your metacognition and desire to reflect upon what you have learned will be heightened.

You will respond to a problem by: considering any relevant assumptions, analyzing, and effectively communicating your results.

You will gain a greater appreciation for statistics (and the mathematics that underpins our work)

You will complete the Data Analysis GE requirement.
Grade Evaluation:

Score Card  
25% of the total grade will be determined by the final exam. 5% will be determined by your TA based upon attendance at and performance in recitation. The other 70% is determined by the following assessments. To compute “your current grade,” sum the final column and divide by the total weight possible to that point. For example if one exam, and four homework assignments have been submitted, then you would divide by .35.

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<tr>
<th>Assessment</th>
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<td>Exam 1</td>
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<td>Exam 2</td>
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Course grades will align with these intervals.

A: [93, 100]  A-: [90,93)  B+: [87, 90)  B: [83,87)  B-: [80, 83)
C+: [77, 79)  C: [73, 76)  C-: [70, 72)  D: [60, 69)  E: [0, 60)

Homework  
Eight homework assignments will be due at various times during the semester. Your lowest homework score will be dropped. Not submitting a homework assignment on-time will result in a 0. Only one of the 0’s will be dropped. Homework will be graded for both completion and correctness. Homework assignments and due dates will be posted on Carmen.

**Homework must be turned in at the beginning of your recitation.**
Submission of homework at lecture or through the drop box near 413 Cockins Hall requires consent from either Dr. Baker or from your TA.
Full credit for exam or homework problems can only be earned via complete solutions.

**No late assignments will be accepted.**
Solutions will be posted no later than 4p.m. on the Fridays that homeworks are due. Expect your homework to be returned at the next recitation.
Use of homework to study for exams is encouraged. Be sure though to plan accordingly by making a copy of your work before you submit it.

**All homework assignments must have your TAs name, be stapled (not paperclipped), and be free of notebook paper perforations.**
Please: attempt the homework exercises associated with that day’s lecture prior to the next lecture. 

minimize rounding in the intermediate steps of your solutions.

Examinations  
Exam 1: Tuesday, October 1st (during lecture)
Exam 2: Tuesday, November 5th (during lecture)
Final Exam: Monday, December 9th 2p – 4:pm (TBD)

Statistical formulas and tables will be provided as necessary.
Please inform both your TA and Dr. Baker immediately of any existing conflicts.
**Additional Information:**

**Make-Up Mid-term Examinations:**

The established exam dates and times are a priority for both students and university officials. Valid and documented absences during exam dates require final pre-approval from Dr. Baker. In requesting a make-up exam you must communicate with both your TA and Dr. Baker. Your performance on the final exam items most associated with the missed exam will count as the missed exam grade with up to an additional 10% point deduction. If you miss an exam because of an emergency, contact Dr. Baker immediately to request a makeup exam. You’ll need to provide evidence of need for rescheduling this exam.

**Grade Appeals:**

Your TAs are highly capable and follow established rubrics in evaluating your work. Only in the rarest of cases will an exam grade need to be appealed. In these situations:

a) (within 1 week of receipt of your assessment) Inform your TA of the issue in writing

b) Attach a statement of the issue at-hand to your work and submit to Dr. Baker

**Student Responsibility:**

You are responsible for your learning. Schedule a minimum of 6 hours to prepare for this course. This equates to 9 hours weekly when the 3 hours for lecture and recitation attendance are included. Responsible students perform a variety of positive academic behaviors like: reviewing the Carmen page, downloading notes, being proactive in contacting a TA or classmate when more information is needed, etc..

**Academic Misconduct:**

In short, if you are considering doing something that might be unethical, then “Don’t do it!!” This can be applied to both academic and non-academic settings. Please help us to maintain an academic environment of mutual respect, personal growth, and fair treatment. Homework assignments, in particular, must be submitted in a student’s own words and handwriting. All instances of academic misconduct (including copied homework or dishonest practice connection with exams) will be reported to the Committee on Academic Misconduct. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct ([http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf](http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf)).

**Addressing Issues of Differing Abilities:**

Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Students with documented disabilities must also contact the Office of Disability Services (ODS) in 150 Pomerene Hall (phone: 292-3307) to coordinate reasonable accommodations for the course. ODS forms must be given to Dr. Baker as early in the semester as possible to be filled out and returned to you.

**Course Admission and Section Changes:**

ADD and SECTION CHANGES handled by our department staff after the SIS registration system closes. Students should go to 405A Cockins Hall and speak with Patty Shoults beginning Tuesday, August 27th.

**Drop Dates:**

The last day to drop the course without a ‘W’ appearing on your record is Friday, September 13. The last day to drop the course without petitioning is Friday, October 25.

**Receiving an ‘I’ for the Course:**

You cannot receive an incomplete for the course unless 70% of the work in the course has been completed. Extenuating circumstances will be handled on a case-by-case basis.