PSY K300, Fall 2014
Statistical Techniques – Syllabus

CLASS TIME AND PLACE
Section 10641
Tu/Th, 1:00 – 2:15 PM, PY 226

INSTRUCTOR INFORMATION
Instructor: Rick Hullinger
Office: PY A300B
Office Hours:
    Mondays 12:15 – 1:15 PM in PY A300B
    Wednesdays 2:30 PM – 4:00 PM in PY 230
    Or by appointment
Office Telephone: 856-6854
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TEACHING ASSISTANT INFORMATION
Teaching Assistant: Allison Lake
Office Hours: By Appointment
Email Address: aljlake@indiana.edu

TEXTBOOK
Nolan and Heinzen Essentials of Statistics for the Behavioral Sciences, 2nd edition. This class will be using an online version of the textbook (no paper text) through the publisher's LaunchPad website. You must purchase LaunchPad access card from the bookstore or directly from the publisher's website in order to access the textbook and complete the homework assignments.

You **must** have to have access to the website for this course. The textbook itself as well as a significant portion of the homework assignments in this class will be accessed through the LaunchPad. If you do not purchase LaunchPad access, you will not be able to complete and submit those assignments.

Please contact me immediately if you have any trouble obtaining LaunchPad access.

HOMEWORK AND EXAMS
There will be 10 homework assignments in the course. Some of the problems will be written out and turned in during class, others will come from the textbook's website and will be completed and graded online. The details for each homework assignment will be posted on Oncourse, and each assignment will be due on the specified date at the beginning of class. **Late homework will not be accepted.** I will not hand out hard copies of the homework assignments or photocopies of the problems from the textbook. It is your responsibility to get the assignments from Oncourse and to get the problems from the textbook.

Your homework must be neat, well organized and easy to read and follow. Grading statistics homework is tedious at best; please respect your TA by making it as easy on her as possible by doing the problems

in order and clearly marking your final answers. I have given our TA the ability to deduct points from homework that is particularly disorganized or hard to follow, so it is in your best interest to be clear.

When calculating your final homework score, I will drop your lowest homework grade. The top 9 homework assignments together contribute 30% to your final grade.

There will be three in-class exams during the course of the semester and an optional cumulative final exam during finals week. Each exam will cover theories and your understanding of the conceptual basis of statistics as well as the computational mechanics. The exams will be closed-book and closed-note, but I will provide a formula sheet that has all of the necessary mathematical formulas for the material. Each exam will focus primarily on the new material learned since the previous exam, but questions about older material will be included as well.

It is your responsibility to double-check your HW and exam grades – both that the papers themselves were correctly graded and that the scores posted on Oncourse match your actual grades. You have two weeks from the time a homework or exam is returned to the class to address any grading issues with me. After that, the grades posted on Oncourse will be considered final.

If you have a scheduling conflict or cannot take any of the exams at its appointed date and time, you must let me know as soon as possible. With the exception of extreme and unforeseen circumstances, contacting me the day of (or even worse, after) the exam will be considered an unexcused absence and will result in a zero on that portion of the exam.

Your final grade is computed using one of the following formulas:
If you do not take the final exam:

Average of the 9 best homeworks:	30%
Average of the 3 in-class exams:	70%
	100%

If you do take the final exam:

Average of the 9 best homeworks:	30%
Average of the 3 in-class exams:	45%
Final exam:	25%
	100%

Grading Scale:

A+: 97.0%-100%;	A:	93.0%-96.99%;	A-:	90.0%-92.99%	
B+: 87.0%-89.99%;	B:	83.0%-86.99%;	B-:	80.0%-82.99%	
C+: 77.0%-79.99%;	C:	73.0%-76.99%;	C-:	70.0%-72.99%	
D+: 67.0%-69.99%;	D:	63.0%-66.99%;	D-:	60.0%-62.99%	
F: Below 60%					

EXTRA CREDIT
I do not offer any extra credit in this course. If you put all of the effort that you might invest in worrying about extra credit and proposing extra credit ideas into making sure that your assignments are done and done well the first time, you'll achieve much better results.

CLICKERS
Clickers (Turning Technologies Response Card keypads) will be used in this class, and I **require** that you have one. I recommend the ResponseCard NXT so that you can respond to both multiple-choice and numeric questions. However, if you already own the RF keypad or cannot afford the NXT, you may use the RF keypad. I do not intend to use the clickers to take attendance or for graded in-class quizzes. Instead, they will be used as a way for me to get instant, anonymous feedback about whether you understand the concepts being taught, and to quickly collect data for in-class experiments and examples. If it appears that many of you are not bringing your clickers to class with you, I do reserve the right to change my policy to encourage clicker compliance.

EMAIL
I expect you to be checking your IU e-mail account no less than once a day. I will send frequent messages to the class with announcements, clarifications, instructions, and/or updates. You are responsible for the content of these messages exactly as if the material had been presented in class. Saying "I didn't read that e-mail" or "I haven't checked my e-mail for a few days" will not be considered a valid excuse for missing information. All class-wide e-mail messages are archived by the Oncourse Email Archive tool and will be available for reference throughout the course.

RESPECT
In order for this class to work well, there must be a certain level of respect between you and me and between you and your fellow classmates. Please be smart with your in-class behavior. If you have to arrive late, enter quietly and sit in the back. If you believe that you may leave early, please sit in the back and slip out quietly. Please turn off your cell phones and do not text-message your friends while I'm teaching. If you are being disruptive to me or to the class, I will ask you to leave.

FEEDBACK
Do not wait until the end of the semester course evaluations to let me know that I could be doing something better. Tell me as soon as possible so that I can make the class valuable and relevant as we go along.
If you have any feedback, good or bad, about the course or how it's being taught, please feel free to send it to me *anonymously* using this link:
http://www.indiana.edu/~rahteach/feedback.html

ACADEMIC HONESTY
This course is conducted under the University's Ethics Code. Specifically, it is considered cheating if you obtain any kind of information about answers and solutions to the assignments in this course – exams and homework – from any non-intended source (including your peers) or conversely transfer such information to others. It is also considered cheating if you lie to me about an absence relating to a homework assignment or an exam. The punishment for academic dishonesty is **failure of the course**. As per university policy, *all* incidents of academic misconduct must be reported to the Dean of Students office.

CLASS RECORDINGS
I will be using a course capture system that allows us (me and UITS) to audio- and video-record and distribute lectures to you in a secure environment.

Because we will be recording in the classroom, your questions or comments may be recorded. You may watch recordings online, or download them for off-line viewing on your computer, smartphone, or

media player. These recordings are copyrighted by me, and provided by me and the University solely for your personal use in connection with your academic coursework at IU. You may not share them with students outside the classes for which they are provided, or anyone else, or post them to another website (including YouTube, Facebook, BlipTV, or any other site) without express, written permission from your instructor. You may not retain the recordings after the course is over. Please be aware that any unauthorized use, copying, or distribution of these recordings may result in disciplinary action and may also lead to civil or criminal penalties.

Due to possible unforeseen technical issues, we cannot guarantee that all class sessions will be properly recorded. It is important that you attend class, actively participate, and take notes. If you miss a class session, you cannot assume that a recording will be available.

STATEMENT FOR STUDENTS WITH DISABILITIES
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact IU Disability Services for Students.

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DISCLAIMER
This syllabus is an outline of the course and its policies, which may be changed for reasonable purposes during the semester at the instructor's discretion. You will be notified in class and / or via email if any changes are made to this syllabus, and an updated syllabus will be provided on Oncourse.

TIPS FOR THE SUCCESSFUL STUDENT

1. **Come to class!** Statistics is a very important piece of many curricula, including psychology, since statistical inference is a fundamental component of scientific research. In this course, each step tends to build upon the previous concepts. So, if you miss classes, you will get lost quickly.

2. For the same reason, **please ask questions in class** if concepts are unclear.

3. **Do the homework.** That sounds obvious, but every semester several students fail the course only because they did not turn in several homework assignments. Take the homework seriously. You will regret it if you do not.

4. **Get started on homework early** so that you have time to get any questions answered.

5. I encourage you to **work in small groups** doing your homework assignments and studying for the exams. Working in groups tends to help solidify your understanding of the material. However, your homework must be your own work. You cannot put multiple names on a single homework or photocopy homework and turn it in as your own.

6. **Bring your calculator to the exams!** Yes, calculators are allowed, but **no cell phone calculators on the exams.** I may not be able to lend you a calculator if you forget yours.

7. Feel free to contact me. My office hours are listed above. **You do not need an appointment to come see me during office hours.** If you need to see me outside office hours, send me an email, and we'll set up a time to meet.

8. Please **turn off all cell phones** during class time.

9. All Indiana University policies will be respected and followed in this class.

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Statistical Techniques – Schedule

DOW	Date	Description	Reading (Before Class)	Assignment
Tu	Aug 26	Introduction		
Th	Aug 28	Levels of Measurment & Distributions	1 – 7, 21 – 35	
Tu	Sep 02	Central Tendency and Variablity	69 – 83	
Th	Sep 04	The Normal Curve	115 – 118	
Tu	Sep 09	Z Scores	119 – 128	
Th	Sep 11	Z Scores & Probability	145 – 152, 96 – 100	HW 1
Tu	Sep 16	Probability		
Th	Sep 18	Catch-up & Review		HW2
Tu	**Sep 23**	**Exam 1**		
Th	Sep 25	Distirbutions of Sample Means	130 – 135	
Tu	Sep 30	Hypothesis Testing	9 – 13, 101 – 103, 154 – 157	
Th	Oct 02	Hypothesis Testing		HW3
Tu	Oct 07	Statistical Signficiance	104 – 107	
Th	Oct 09	Effect Size	172, 177 – 182	
Tu	Oct 14	Introduction to t Tests	197 – 202	
Th	Oct 16	Single-Sample t Tests	203 – 207, 209 – 210	HW 4
Tu	Oct 21	Paired-Samples t Tests	210 – 216, 218	
Th	Oct 23	Independent-Samples t Tests	229 – 232	HW5
Tu	Oct 28	Catch-up & t Test Review		
Th	**Oct 30**	**Exam 2**		HW 6
Tu	Nov 04	ANOVA	253 – 265, 271	
Th	Nov 06	ANOVA	273 – 274	HW 7
Tu	Nov 11	Correlations	343 – 354	
Th	Nov 13	Correlations		HW 8
Tu	Nov 18	Linear Regression	369 – 372	
Th	Nov 20	Linear Regression		HW 9
Tu	**Nov 25**	No class, Thanksgiving Break		
Th	**Nov 27**	No class, Thanksgiving Break		
Tu	Dec 02	Non-Parametric Tests	403 – 411	
Th	Dec 04	Catch-up & Review		HW 10
Tu	**Dec 09**	**Exam 3**		
Th	Dec 11	No class		
Th	**Dec 18**	**Optional Final Exam, 12:30 – 2:30 PM**		