

STAT-S 100 — STATISTICS LITERACY

MW 11:15–12:05am, AC (Cedar Hall-Union Street Center) C112

F 11:15–12:05am, LI (Wells Library) 503

Instructor:	Rob Granger
Office:	TBD
Office Hours:	TBD

Course Web Page:	Canvas
Course Communication:	rgranger@iu.edu

Required material and software:	Statistical Package R
Labs (Friday Class):	LI 503. 11:15am - 12:05am

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Office:	IE 103 (Informatics East)
Office Hours:	TBD

Course Objectives:

The material in this course teaches how to be an informed consumer of statistical analysis. Topics discussed include experiments and observational studies, summarizing and displaying data, relationships between variables, quantifying uncertainty, and drawing statistical inferences. Issues of data and chance permeate everyday life in the news, advertisements, medical, and business communications. This course focuses on developing the statistical thinking needed to gain insight from this information in order to make informed decisions. This course is intended to familiarize the student with basic statistical concepts and some of their applications that we face daily. No mathematics beyond simple algebra is needed, but quantitative skills are strengthened by constant use. This course involves much reading, writing, and critical thinking through discussions on topics such as clinical trials, data ethics, public opinion polls and the political process, the question of causation, the role of government statistics, and dealing with chance in everyday life. NOTE: STAT S100 cannot be taken for credit if credit has already been received for any statistics course (in any department) numbered 300 or higher.

Grading:

Participation	10%	First Exam	15%
In-class work	20%	Second Exam	15%
Assignments	20%	Final Exam	20%

Cut-offs are the traditional ones:

A+ (≥ 97.00), A (93.00 - 96.99), A- (90.00 - 92.99), B+ (87.00 - 89.99), B (83.00 - 86.99), etc. These cut-offs may be adjusted in your favor (for all the sections) at the end of the semester.

Course Description and Policies:

• Responsibilities

- You are expected to inspect Canvas regularly.
- You are expected to read the assigned material to be discussed in class.
- Please refrain from texting/using your cellphone during class and keep your cellphones/electronics out of sight.

• Participation

- Active participation is a fundamental part of the class.
- You are expected to attend all classes. Do not show up late for class and inform me beforehand if you need to leave earlier. Leaving without talking with me may affect your participation points.

• Assignments and Group-work

- You will have home-work assignments and in-class group-work regularly. All work unless stated otherwise must be **typed** and submitted through Canvas.

• Exams

- You will have three exams.

Exam 1: October 2

Exam 2: November 13

Final: December 18 (5:00-7:00)

• R Assignments

- R is a statistical package that can be used to carry out computations and produce graphics.
- Examples with R will be taught during lecture and example R code will be posted on Canvas.
- Assignments in R, the statistical software used in this course, will be assigned throughout the semester.

• Textbook

- All reading assignments are from the book:

***Statistics: Concepts and Controversies 9th edition* by David S. Moore and William I. Notz**

Rights and Responsibilities:

Rights and responsibilities for students are listed and explained in the IU Code of Student Rights, Responsibilities, and Conduct (<http://www.iu.edu/~code/code/index.shtml>). Students have the responsibility to be informed of the policies and procedures within the community of Indiana University. Please review sections on academic misconduct, religious holidays, and code of ethics. If you have any concerns or questions, please contact the instructor.

Note: *Academic Misconduct*. Academic misconduct is defined as any activity that tends to undermine the academic integrity of the institution. The university may discipline a student for academic misconduct. Academic misconduct may involve human, hard-copy, or electronic resources (part II section G in the Code: Uphold and maintain academic and professional honesty and integrity). Further, the Code defines plagiarism as presenting someone else's work, including the work of other students, as one's own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. (part II section G in the Code).

Note: *Students with disabilities*. The Code states that it is the responsibility of students with documented physical or learning disabilities seeking accommodation to notify their course directors and the relevant campus office that deals with such cases in a timely manner concerning the need for such accommodation. (part I section G in the Code: Right to Accommodation for Individuals with Disabilities). If you have any concerns or questions, please contact the instructor.

WEEK OF:

8/26	Syllabus, Chapter 1
9/2	Chapters 2 and 3 (LABOR DAY: NO CLASS MONDAY)
9/9	Chapters 4 and 5
9/16	Chapters 8 and 9
9/23	Chapter 10
9/30	Review, Exam 1: Wednesday
10/7	Chapter 11
10/14	Chapter 12 (FALL BREAK: NO CLASS FRIDAY)
10/21	Chapter 13
10/28	Chapter 14 and 15
11/4	Chapter 16
11/11	Review, Exam 2: Wednesday
11/18	NO CLASS: THANKSGIVING BREAK
11/25	Chapters 17 and 18
12/2	Chapter 20
12/9	Chapter 21 and 22
12/16	NO CLASS: FINAL EXAM (Wednesday, December 18, 5:00-7:00)