Section: 4 MWF 3:00-3:50 PM
Location: White Hall 101
Instructor: Yifeng Zhu
Office: Rich 310D (Rear)
Office hours: MW 4:00-5:30 PM (or by appointment)
Email: yifeng.zhu@emory.edu


Course Objective:
This course is an introduction to empirical reasoning with emphasis on probability theory, descriptive statistics, and statistical inference. By the end of the course, you are expected to:

(1) Enhance your knowledge of quantitative analysis.
(2) Understand basic probability theory, including conditional probability, Bayes’ law, random variables, discrete and continuous distributions, mean, variance and special distributions, you are also expected to be able to use them in data analysis.
(3) Understand key statistical concepts, be able to conduct point estimation and obtain confidence interval.
(4) Understand and be able to perform tests of hypotheses for simple statistical inferences.

Topics:
(1) Classical Probability theory
(2) Random variables and distributions
(3) Expectation, variance and Central limit theorem
(4) Order Statistics
(5) Estimator, point estimation and confidence interval
(6) Hypothesis testing
Prerequisite: MATH 111 and Econ 101 or equivalent. It is your responsibility to check whether you satisfy the enrollment requirements to take this course.

Exams and Grades: There are one (1) midterm and one (1) final. The midterm carries a weight of 30%, the time is 3:00 PM-3:50 PM, Oct. 6th (Friday), location: White Hall 101. The final exam is cumulative and carries 40%, the time is (TBD), location: (TBD). Problem sets will be assigned during the class or posted on the Canvas, carrying a weight of 15%. There are Five (5) problem sets in total. And they should be submitted to me directly before the following Monday's (or Wednesday if no class on Monday) lecture time. In addition, four (4) pop quizzes will be given in class, account for 12%, and the attendance account for 3%.

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<td>Homework</td>
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<td>Pop quizzes</td>
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EPASS: EPASS peer tutoring is available for this course. During a session you can review course content, master basic concepts and develop more advanced skills under the guidance of a fellow student. Each student is eligible for 2 hours of EPASS tutoring per week during the semester. For information about EPASS policies and scheduling appointments, visit [http://www.epass.emory.edu](http://www.epass.emory.edu) and click on Peer Tutoring.

Canvas: Canvas is a communication medium used to make announcements, distribute handouts and lectures, post reading material, collect assignments, and record and distribute grades. To access your Canvas dashboard, go to: [https://canvas.emory.edu](https://canvas.emory.edu). Use your email ID and Password to log in and select our course. There you will find relevant material as we move through the semester.

Honor code: The honor code is in effect throughout the semester. By taking this course, you affirm that it is a violation of the code to cheat on exams, to plagiarize, to deviate from the teacher’s instructions about collaboration on work that is submitted for grades, to give false information to a faculty member, and to undertake any other form of academic misconduct. You agree that the teacher is entitled to move you to another seat during examinations, without explanation. You also affirm that if you witness others violating the code you have a duty to report them to the honor council. If you have a question concerning what is appropriate for an assignment or anything else, ask me. In general, you are expected to behave such that your academic integrity is beyond question. Please see Article 4 of the honor code if you have any questions regarding academic misconduct: [http://catalog.college.emory.edu/academic/policies-regulations/honor-code.html](http://catalog.college.emory.edu/academic/policies-regulations/honor-code.html)