

**ECON 83a: Statistics for Economic Analysis**

Brandeis University IBS

**Summer 2018**

Session II: July 9 to August 10, 2018

Monday, Tuesday &amp; Thursday 11:00 AM - 1:20 PM

Location: Lemberg Academic Center 054

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Instructor: Mengnan Zhu (You can also call me Cliff)

Email: [cliffzhu@brandeis.edu](mailto:cliffzhu@brandeis.edu)

Office Hours: I will be available for 1-2 hours after class for discussion.

Teaching Assistant: There will be no TA.

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**Textbook:**

Charles H. Brase and Corrinne P. Brase, **Understandable Statistics: Concepts and Methods**, 12th Edition (Brooks Cole, 2017, ISBN-13: 978-1337119917 ISBN-10: 1337119911). Previous editions can also be used if currently owned, but the student will be responsible for assuring that the correct materials are studied, and correct homework exercises completed.

**Prerequisite:**

ECON 2a or 10a. Students must earn C- or higher in MATH 10a, or otherwise satisfy the calculus requirement, to enroll in this course.

**Course Description:**

This is the first course in probability and statistics for students in economics and business. Topics to be covered include: descriptive statistics, central tendencies, bivariate data, probability distributions functions, cumulative distribution functions, expectation, variance, normal and binomial distributions, sampling and sampling distributions, point estimation, properties of estimators, confidence intervals, and hypothesis testing.

**Course Planning:**

My goal is to cover most of chapters, which translates to almost one chapter per class. I will not strictly maintain a steady pace through chapters as some of the materials are easily handled by student assigned readings and class discussion and review, while other topics will be developed in more detail in class.

You will be expected to develop a facility with the materials assigned in the readings, and I will expect that you will read each chapter in advance of the associated lectures. Class time will focus on developing and exploring the more subtle and quantitative topics, as well as clarifying ambiguities.

**Learning Goals:**

The goal of this course is to introduce students to basic topics related to statistics for economic analysis - including theories and applications - at a reasonably formal quantitative level. Upon successful completion of this course you should be able to calculate and interpret basic descriptive statistics; understand probability distributions, cumulative distributions, expected values; calculate confidence intervals and perform hypothesis testing.

**Evaluation:****- Class Attendance (5%):**

Learning in basic statistics is cumulative; each topic builds on the previous one. As a result, attendance is extremely important. I strongly recommend that you attend every class. Attendance will be taken in every class. Up to two absences from class will have no effect on the grade.

**- Problem Sets (30%):**

Seven problem sets will be assigned. Hard copy of complete problem sets must be turned in at the beginning of class on the due date. To accommodate violation due to illness and unforeseen conflicts, I will drop the lowest score among your problem sets in the grade calculation. In other words, I will take the top six grades in calculating your problem set grade.

**- Midterm Exam (30%):**

There will be 1 midterm exam (in class and closed-book). There is no make-up midterm exam.

**- Final Exam or Group Project (35%):**

There will be 1 final exam or group project. The final type will be decided during the first class. The final exam will be cumulative, reflecting the content covered before the midterm exam as well as content after the midterm exam. The detailed requirements and guidelines for final project will be posted (if there is one).

**Workload:**

Success in this four-credit course is based on the expectation that students will spend a minimum of 9 hours of study time per week in preparation for class (readings, homework assignments, preparation for exams, etc.)

**Electronics in the Classroom:**

Laptops are permitted in the front row only. Even though, surfing the internet is prohibited – it is distracting to other students and to me, the instructor, thus impacting the learning environment. Until recently, this was intuitive speculation. [But now research shows it.](#)

Cellphones are not permitted and should be off. If you have any related special accommodation requests (for example are awaiting an important medical-related call), please come see me before the class, and we will find a solution.

**Disabilities:**

If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please see me immediately.

**Academic Integrity:**

You are expected to be honest in all of your academic work. Please consult [Brandeis University Rights and Responsibilities](#) for all policies and procedures related to academic integrity. Students may be required to submit work to TurnItIn.com software to verify originality. Allegations of alleged academic dishonesty will be forwarded to the Director of Academic Integrity. Sanctions for academic dishonesty can include failing grades and/or suspension from the university. Citation and research assistance can be found at [LTS - Library guides](#).