

---

Maxine Goodman Levin College of Urban Affairs  
Cleveland State University

## **Fundamentals of Applied Reasoning (UST 504)**

### **Syllabus**

Fall Semester 2017  
Tuesdays: 6:00 pm – 9:50 pm  
Room: UR 27

Instructor: Shui, Bin  
Email: [b.shui@csuohio.edu](mailto:b.shui@csuohio.edu)  
Phone: 240-308-9176  
Office Hours: By appointment<sup>1</sup>

#### **Course Description**

This course is a four credit course designed to introduce the student to core statistical concepts, basic principles, statistical reasoning techniques, and the logic of data analysis.

#### **Course Objective**

This course focuses on knowledge and skill development in the statistical area. The course is designed to meet the following learning objectives:

##### *Knowledge*

- Understand mathematical models, graphs, tables and schematics and how to interpret and draw inferences from them,
- Recognize and interpret mathematical information when presented symbolically, visually, numerically or verbally,
- Understand alternatives that can be used in mathematical or statistical analysis and how to achieve optimal results,
- Recognize the limits of mathematical and statistical models and be able to explain how those limits affect everyday decision making, and
- Understand of how mathematical and statistical information can assist in analysis, synthesis and evaluation of complex problems.

##### *Skills*

- Use arithmetic, algebraic, geometric, and statistical models to solve problems.
- Understand how to calculate formulae.
- Use tools to solve mathematical and statistical problems as well as to prepare graphs and charts.
- Develop the means used to estimate and check answers to mathematical problems.
- Learn to use representation of mathematical information in a symbolic, visual, or verbal manner that has clarity of result.

#### **Required Text**

Bowen, Chieh-Chen: *Straightforward Statistics*: 2016. SAGE Publications, Inc., Thousand Oaks

---

<sup>1</sup> As a part-time instructor, I do not have an office on campus, nor do I keep regular office hours in this building. I am however available as needed. Please email me with questions throughout the week. I try to arrive before the start of class each week and usually am available afterwards. I am always willing to make an appointment to discuss issues requiring more in depth discussion.

## Course Design

The course will use a series of exercise problems, group activities, learning assessments, and computer labwork to help you build skills in analytical reasoning.

You are expected to prepare for each class by reading the chapter assignments **in advance** and identifying those elements that may require additional clarification. We will use computers in the classroom, working primarily with Excel, SPSS and Word.

Both essential and supplemental course materials will be made available via the course Blackboard site. Students are required to utilize these resources.

## Expectations

- Time required – You are expected to spend time on preparation for class, homework completion and studying for exams. Some weeks will require more, some less.
- Assignments - All assignments have strict due dates associated with them. Late submissions will not be accepted. If you must miss a class, make arrangements to submit your assignments before the scheduled due date.
- Attendance - Attendance is required to participate in & earn credit for in-class activities. If you miss a class, it is your responsibility to obtain notes and necessary course materials from someone in class in order to complete the assignments on time.
- Exams
  - Scheduling – Exams dates are noted in the syllabus. Make-up exams are given only in emergency cases, with proof required.
  - Contents - All exams will test accumulated knowledge as well as new problems. The nature of the material requires using early concepts throughout the semester. In preparation for exams, review all material. Do not fall behind in the readings or exercises.
- Please turn off ringers to phones before class begins.

## Student Grading

Course Elements	Value
In-class Exercise	15%
In-class Quizzes	15%
Homework	20%
Exam - Midterm	25%
Exam - Final	25%

CSU uses the following letter grades with plusses and minuses. In the Levin College the letter grades follow this numeric scale:

- A = 94-100%
- A- = 90-93
- B+ = 87-89
- B = 83-86
- B- = 80-82
- C+ = 77-79 (there is no C+ grade for graduate students; C = 70-79 for grad students)
- C = 70-76 for undergraduates, 70-79 for grad students
- D = 60-69 (there is no D for graduate students)
- F = 59 and below for undergraduates, 69 and below for graduate students

**Grades of “I” and “X”**

- **X – Effective Fall 2016**, instructors of graduate courses continue to have the ability to assign the grade of "X" when appropriate and graduate level “X” grades follow the Incomplete Deadline as stated in the Academic Calendar.
- **I - Incomplete.** The "I" grade is given when the work in a course has been generally passing, but when some specifically required task has not been completed through no fault of the student.

**An "I" grade can be assigned by the instructor when all three of the following conditions are met:**

- 1) Student is regularly attending/participating in the class and has the potential to pass the course;
- 2) Student has not completed all assignments and has stopped attending/participating for reasons deemed justified by the instructor; and
- 3) Student has notified the instructor prior to the end of the grading period.

**Students with Special Needs**

Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students regardless of their disability. Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services at (216) 687-2015. The Office is located in MC 147. Accommodations need to be requested in advance and will not be granted retroactively. Students should notify the instructor as soon as possible if they have been granted an accommodation through the Office of Disability Services.

**Writing Assistance**

Students with difficulty writing may contact the Writing Center located in Rhodes Tower 124 for assistance. Students should use the American Psychological Association (APA) format for citations and reference pages.

**Plagiarism**

Plagiarism is stealing and/or using the ideas or writings of another in a paper or report and claiming them as one's own. This includes but is not limited to the use, by paraphrase or direct quotation, of the work of another person without full and clear acknowledgment.

The penalties for plagiarism are found in full in the Student Handbook (Office of Student Life) under Academic Regulations (Policy on Academic Misconduct) at the following link:

<https://www.csuohio.edu/sites/default/files/StudentCodeOfConduct.pdf>

**Course Schedule**

#	Date	Contents	Notes
1	29-Aug	CH 1, 2	
	4-Sep		Labor Day
2	5-Sep	CH 3	
	8-Sep		<i>The deadline for dropping a course</i>
3	12-Sep	CH 4	
4	19-Sep	CH 5	
5	26-Sep	CH 6	
6	3-Oct	CH 7	
	10-Oct		Columbus Day (no class)
7	17-Oct	Exam I - Midterm	Mid Term
8	24-Oct	CH 8	
9	31-Oct	CH 9	
	3-Nov		<i>The last day to withdraw from the course</i>
10	7-Nov	CH 10	
	10-Nov		Veterans Day
11	14-Nov	CH 11	
12	21-Nov	CH 12	
	23-Nov		Thanksgiving
	26-Nov		
13	28-Nov	CH 14	
14	5-Dec	Review	
	Dec 11-16		<i>The final examination week</i>
15	12-Dec	Exam II -Final	Final exam

Notes: This schedule may change as needed. Notice of changes will be given as far in advance as possible.