INSTRUCTOR: Dr. Demba Fofana
OFFICE: MAGC Room 3.204  E-MAIL: demba.fofana@utrgv.edu
OFFICE HOURS: T: 10:00 am– noon or by appointment
LECTURES: TR: 1:40 pm - 2:55 pm, MAGC Room 1.206
PRE-REQUISITE: Must be classified as TSI College ready in Mathematics.

COURSE DESCRIPTION: As stated in UTRGV course catalogue.

Textbook and/or Resource Material: a textbook is necessary for this course: Elementary Statistics (10th Edition) by Allan G. BLUMAN. The students are required to purchase a subscription to https://www.aleks.com/ (course code: R9W3E-4V3CU) for the completion of homework, quizzes, and tests. The e-book is available through ALEKS. The Financial Aid Access Code is A5842-C0DBF-B25CB-AECC8; it does allow you to work for two free weeks, after which you will be required to purchase a subscription to ALEKS. These two weeks will already be included in your account. It is highly recommended that you purchase the Student Access Code BEFORE the two weeks expire to prevent interruptions with your ALEKS account.

SOFTWARE: R Studio and R

HANDOUTS: The text book will be supplemented with handouts which will be sent to you electronically via your UTRGV email account.

NOTE: Only UTRGV email accounts will be used for sending the handouts.

HOMEWORK: Reading assignments and homework problems will be assigned.

Your success in this course depends greatly on self-discipline and how much time you put into it. For better grasp of the concepts, you are advised to read the course material ahead of the instructor.

GRADE POLICY: Your course grade will be based on Quizzes (15%), homework (30%), three exams (30%), and a comprehensive final exam (25%).

Course grade will be based on: 90 –100: A, 80 – 89: B, 70 – 79: C, 60 – 69: D, below 60: F

Calendar of Activities

August 30 Last day to add a course or register for fall 2018
September 3 Labor Day – NO classes
November 14 Last day to drop a course; will count toward the 6-drop rule
November 22 - 24 Thanksgiving Holiday – NO classes
December 6 Study Day – NO classes
December 7 - 13 Final Exams
ATTENDANCE:
Class attendance is mandatory, and any absences should be discussed with the instructor in advance. **Any student who misses a class is responsible for borrowing the material covered during his/her absence, from a classmate.**
Any student missing three lectures may be **DROPPED** from the class. Attendance and class participation may be used to determine grades in borderline cases.

CLASS CONDUCT:

**NOTE:** Walking into class late or walking in and out of class during lectures are disruptive behaviors which distract the attention of the teacher and other students. Also, a student who walks in and out of class during lectures misses some important facts about the lecture being delivered.

1. Any student who comes to class late after the roll has been checked is regarded as absent from class that day. **The class roll is checked at the beginning of the class period and not at the end.**
2. You may be **DROPPED** from the course for excessive lateness.
3. You MUST stay in class till the end of the period.
   a. **A student will be checked absent from class if the student leaves before the period ends.**
   b. **If a student walks in and out of the classroom while lecture is in progress, regardless of the reason, 2 points will be deducted from the final grade because walking in and out of the class during lectures is disruptive. Exceptions will only be made for documented medical reasons.**
4. All cellular phones and beepers must be turned off during class time. 5 points will be deducted from your final grade if your cellular phone or beeper rings in class, whether accidentally or deliberately.
5. Any disruptive or unruly behavior will be grounds for dismissal from the course.
6. Any student caught cheating on any of the exams will be given a course grade of F.

CORE/COURSE STUDENT LEARNING OUTCOMES:
After successful completion of this course, students will be able

1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.
2. To represent and evaluate basic statistical information verbally, numerically, graphically, and symbolically.
3. To expand statistical and mathematical reasoning skills, and formal logic to develop convincing statistical and mathematical arguments.
4. To use appropriate technology to enhance statistical thinking and understanding and to solve statistical problems and judge the reasonableness of the results.
5. To interpret statistical and mathematical models such as formulas, graphs, tables, and schematics, and draw inferences from them.
6. To recognize the limitations of mathematical and statistical models.
7. To develop the view that statistics and mathematics is an evolving discipline, interrelated with human culture, and understands its connections to other disciplines.

STUDENTS WITH DISABILITIES:
If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. **Brownsville Campus:** Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

MANDATORY COURSE EVALUATION PERIOD:
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Students who
complete their evaluations will have priority access to their grades.

**SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:**
In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at [www.utrgv.edu/equity](http://www.utrgv.edu/equity), including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

**Tentative Schedule of Activities:**

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<thead>
<tr>
<th>Week</th>
<th>Days</th>
<th>Date</th>
<th>Topics</th>
<th>Student Activities</th>
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<tr>
<td>1</td>
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<td>8/28/18 to 9/3/18</td>
<td>Ch1. The Nature of Probability and Statistics: Section 1.1 and 1.2 Population vs Sample; Descriptive &amp; Inferential Statistics; Types of variables;</td>
<td>Ch. 1 Assignments</td>
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<td>2</td>
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<td>9/5/18 to 9/10/18</td>
<td>Ch2. Frequency Distributions and Graphs: Section 2.1, 2.2, 2.3 Organizing qualitative and quantitative data (Frequency tables) Pie chart and bar graphs; Frequency and relative frequency histograms; Identify shape of distributions; Stem-and-leaf plots</td>
<td>Ch. 2 Assignments</td>
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<td>9/11/18 to 9/17/18</td>
<td>Ch3. Data Description: Section 3.1, 3.2, 3.3, 3.4 Measures of central tendency: mean, median, mode, midrange, weighted mean Measures of variation: population variance and standard deviation; sample variance and standard deviation; Chebyshev and Empirical rules Measures of position: Z-scores, percentiles, quartiles 5-number summary and Box-plots</td>
<td>Ch. 3 Assignments</td>
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<td>4</td>
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<td>9/18/18 to 9/24/18</td>
<td>Ch4. Probability and</td>
<td>Ch. 4 Assignments</td>
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<td>Chapter</td>
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| 5       | 9/25/18 to 10/1/18 | Counting Rules: 4.1, 4.2, 4.3  
Sample spaces and probability of events; Addition rules of probability for compound events; Conditional probability; Multiplication rules for compound events | Ch. 5 Assignments         |
| 6       | 10/2/18 to 10/8/18 | Ch5. Discrete Probability Distributions: Section 5.1, 5.2, 5.3  
Discrete probability distributions; Mean, variance and standard deviation of discrete probability distributions; Binomial distribution | Ch. 6 Assignments         |
| 7       | 10/9/18 to 10/15/18 | Ch7. Confidence Intervals and Sample Size: Section 7.1, (7.2 optional), 7.3, (7.4 optional)  
Point estimate and interval estimates; Confidence interval for mean when $\sigma$ is known (optional)  
Sample size determination; Confidence interval for mean when $\sigma$ is unknown (t-distribution)  
Confidence interval and sample size determination for proportions (optional) | Ch. 7 Assignments         |
| 8       | 10/16/18 to 10/22/18 | Ch8. Hypothesis Testing: Section 8.1, 8.3, (8.4 optional)  
Introduction to hypothesis testing; type I and type II errors  
Hypotheses testing of means when $\sigma$ is unknown (t-test), p-value approach  
Hypotheses testing of proportion (optional) | Ch. 8 Assignments         |
| 9       | 10/23/18 to 10/29/18 | Ch9. Testing the Difference Between Two Means, Two Proportions, and Two | Ch. 9 Assignments         |
### Variances: Section 9.3, 9.4
- Testing the difference between two means; independent samples (2-sample t-test)
- Testing the difference between two means; dependent samples (paired t-test)

### Ch10. Correlation and Regression: Section 10.1, 10.2
- Scatter plot, Correlation and Regression

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<td>10</td>
<td>10/30/18 to 11/5/18</td>
<td>Ch. 10 Assignments</td>
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<td>11</td>
<td>11/6/18 to 11/12/18</td>
<td>Reviews</td>
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<td>11/13/18 to 11/20/18</td>
<td>Exams</td>
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**TENTATIVE EXAM DATES:**
- Exam 1: Thursday, September the 27th
- Exam 2: Thursday, October the 25th
- Exam 3: Tuesday, November the 20th
- Final Exam: Between December the 7th and 13th

**Inclement Weather:**
Deadline extensions because of inclement weather, or any other unforeseen event will be considered as needed. It is the student’s reasonability to communicate such need as soon as possible.

**Syllabus Changes:**
This course syllabus provides a general plan for the semester; in the interest of flexibility, there may be necessary deviations, at my discretion.