SYLLABUS – FALL 2015

STT 200 - STATISTICAL METHODS – LECTURE 2

Instructor: Dr. Elijah E. Dikong
Office: C501 WELLS BUILDING
Telephone: (517) 884-1486
Email: dikonge@msu.edu
Lecture: DAYS: MWF TIME: 12:40 p.m. – 01:30 p.m. PLACE: WH B119

RECITATIONS

<table>
<thead>
<tr>
<th>SECTIONS</th>
<th>DAY</th>
<th>TIME</th>
<th>ROOM</th>
<th>TEACHING ASSISTANT</th>
</tr>
</thead>
</table>
| Section 5| Tuesday  | 09:10a.m. – 10:00a.m. | WH A130 | Name: Guiling Shi  
Office: C508 Wells  
Email: shiguili@stt.msu.edu  
Telephone: 884 - 1490 |
| Section 6| Tuesday  | 03:00p.m. – 03:50p.m. | WH A320 | Name: Guiling Shi  |
| Section 7| Tuesday  | 11:30a.m. – 12:20p.m. | WH A220 | Name: Guiling Shi  |
| Section 8| Tuesday  | 12:40p.m. – 01:30p.m. | WH A308 | Name: Michael DeLaura  
Office: C503 Wells  
Email: delaural@stt.msu.edu  
Telephone: 884 - 1487 |
| Section 21| Tuesday | 04:10p.m. – 05:00p.m. | WH A108 | Name: Michael DeLaura |
| Section 22| Tuesday | 11:30p.m. – 12:20p.m. | WH A316 | Name: Michael DeLaura |
| Section 23| Tuesday | 01:50p.m. – 02:40p.m. | WH A330 | Name: Xiaoxi Shen  
Office: C401 Wells  
Email: shenxia4@stt.msu.edu  
Telephone: |
| Section 24| Tuesday | 03:00p.m. – 03:50p.m. | WH A208 | Name: Xiaoxi Shen |
Websites: http://www.stt.msu.edu
(For posting classnotes, homework assignments, handouts, etc.)

Office Hours: **Monday, Wednesday:** 09:30 a.m. – 10:30 a.m. and **Tuesday:** 11:40 a.m. – 12:40 p.m. at C501 Wells Building. In addition, I will remain in the classroom briefly following lectures to discuss your questions and, when appropriate, an appointment will be made. In addition, walk-in help will be provided in the Statistics Help Room, A102 WH. Walk-in hours will be posted on Department of Statistics and Probability webpage.

Course Description: This is a first course in probability and statistics covering data analysis, probability models, random variables, estimation, hypotheses testing, confidence intervals, and simple linear regression.

Lecture: The lectures are used to present basic ideas. STT 200 is a survey course of the most practical and commonly encountered statistical concepts and methods. The course is taught at an elementary mathematical level (college algebra). The textbook will be followed fairly closely. The material may be divided into three main parts: Part I: Descriptive Statistics, Part II: Probability, and Part III. Statistical Inference.

Learning Objectives: Statistics is a discipline that supports research and development; its methods help scientists, doctors, engineers, attorneys, educators, communicators, and almost all researchers and decision-makers be effective in gathering information, presenting it and using it intelligently. In fact, persons in all walks of life use data and information in daily living and decision-making. We are awash in information; it is essential that we learn to deal with it effectively. This course will help show you how the science of probability and statistics gives you guidance for both your daily life and in your chosen profession.

Our Approach: The course objectives will be approached and hopefully achieved through our involvement with real applications. The textbook readings will provide background in data analysis, probability and statistics. The lectures will provide context for the methods through applications. The recitations will provide clarifications and explanations in regard to solving exercises from the recommended textbook.

Prerequisite: MTH 103 or designated score on mathematics placement test

Calculator: You may use whatever calculator you wish. In the past, however, students have found it useful to have a TI-83 (or TI 84 plus). *It is your responsibility to learn how to use your calculator.* You should practice using the calculator you will use for the examinations when completing homework exercises.

Homework: There will be 5 homework assignments. Each will be worth 20 points. **All of the homework assignments will be posted on the statistics website above, and post and due dates will be announced in class.** An email will be sent to the entire class as one of the methods of announcing the homework assignments. Be alert to these. The grade you receive on a homework assignment will reflect the grade you would likely receive for answers to similar problems on a test or quiz. The posted homework assignments will consist of multiple-choice questions in which the taker must fill in the bubble to denote each correct answer.

The suggested exercises below are intended to give the student an idea of the types of problems the professor values while providing practice for the student. It is expected that the suggested exercises will provide a starting point for the recitation sessions.

Clickers: Not required for this lecture group this semester.

Tests: There will be 4 “multiple-choice” midterm examinations during the semester. Each of the midterm examination is worth 100 points. **Midterm examination 4 is a take home examination.** To complete this examination, you will have to independently study chapters 9, 10, and 11 from the recommended textbook (Intro Stats 4th edition) or chapters 11, 12, and 13 (Intro Stats 3rd edition). You will get help during the recitations. Midterm examinations 1, 2, and 3 are taken in class at WHB119. Bring a picture ID to all tests and final examination. The tentative dates for the tests are below. You should notify me prior to missing a test in case of a family emergency, sickness, etc. Make-up tests and quizzes will only be given with verifiable documentation. During tests, cell phones are to be turned off and stored where they cannot be seen. If your phone rings during an examination or you are seen with your phone out of your bag, you will be asked to leave the room and will receive a zero on the test. Test dates are as follows:

- **Test Number 1:** WEDNESDAY SEPTEMBER 30, 2015 (Chapters 1 – 5)
- **Test Number 2:** WEDNESDAY OCTOBER 21, 2015 (Chapters 6 – 8)
- **Test Number 3:** WEDNESDAY NOVEMBER 18, 2015 (Chapters 12 – 14)
- **Test Number 4:** DUE MONDAY NOVEMBER 23, 2015 (Chapters 9 – 11)

The above mentioned chapters for the tests are from Intro Stats 4th edition
The final examination is *not cumulative* and it is worth 200 points. The final examination will cover chapters 15 – 20 of the recommended textbook (4ed). The duration of the final examination is two (2) hours. You will not be permitted to take the final examination without presentation of a valid MSU picture identification.

Your final grade will be calculated out of a total of **700 points**: 100 points for 5 homework assignments, 400 points for 4 midterm examinations, and 200 points for the final examination.

**I do not personally curve** but give each student the opportunity to do the curving. [See Extra Credit Principle below].

To calculate your numeric grade, take the *sum* of all the scores for the 4 homework assignments, 4 midterm examinations, all extra-credit points earned, and the final examination. I expect to use the following grading scale:

<table>
<thead>
<tr>
<th>Numeric Grade</th>
<th>Point Range</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>630 – 700</td>
<td>90% – 100%</td>
</tr>
<tr>
<td>3.5</td>
<td>595 – 629</td>
<td>85% – 89.9%</td>
</tr>
<tr>
<td>3.0</td>
<td>553 – 594</td>
<td>79% – 84.9%</td>
</tr>
<tr>
<td>2.5</td>
<td>511 – 552</td>
<td>73% – 78.9%</td>
</tr>
<tr>
<td>2.0</td>
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<td>65% – 72.9%</td>
</tr>
<tr>
<td>1.5</td>
<td>420 – 454</td>
<td>60% – 64.9%</td>
</tr>
<tr>
<td>1.0</td>
<td>385 – 419</td>
<td>55% – 59.9%</td>
</tr>
<tr>
<td>0.0</td>
<td>000 – 384</td>
<td>00% – 54.9%</td>
</tr>
</tbody>
</table>
IMPORTANT REMARK

There will be many extra credit opportunities throughout the semester. As a consequence of these, numeric grades will not be rounded up even if you are short of 0.5 points to earn a higher grade. For example, to earn a numeric grade of 4.0, a student must have earned a total of at least 630 points of the possible 700 points. If such a student’s total score at the end of the semester is 629.5 points out of the possible 700 points, he or she earns a numeric grade of 3.5. I will not respond to emails at the end of the semester begging me to round up grades. To avoid this, you are strongly encouraged to take maximum advantage of the extra credit opportunities that will be available throughout the semester.

**Important Dates**

- **September 02:** First Day of Classes
- **September 07:** Labor Day – Official Holiday/University Closed
- **September 09:** Open Adds End (at 8:00 p.m.)
- **September 28:** End of Tuition Refund Period
- **October 21:** Middle of Semester (Deadline to Drop With no Grade Reported)
- **November 26 - 27:** Thanksgiving Holiday
- **December 11:** Last Day of Classes
- **December 17:** FINAL EXAMINATION  
  **PLACE:** WH B119  
  **TIME:** 12:45 p.m. – 2:45 p.m.

**Advice for Students:** DON’T FALL BEHIND!! This class moves at a rapid pace.

- Come to class and recitation prepared.  
  - Read the chapter before lecture.  
  - Reread the chapter after lecture to see if you have follow up questions.  
  - Do the suggested exercises before recitation and come prepared with questions.
- Form a study group.
- Learn how to use your calculator.
- Keep a notebook of vocabulary.
- Keep a list of reference examples.
• Get help if you need it- from the professor, teaching assistant of the Statistics Help Room.

• ATTENDANCE: You are expected to attend all meetings (recitations/lectures) of the class. If you miss a class for whatever reason, you are responsible for all materials, assignments, and deadlines missed. While office hours provide an opportunity for further clarification of materials covered in class, they will not substitute for classes.

Remark on Attendance: You will earn an **extra credit of 5 points** if you attend **at least 85% (12 out of 14) of the recitation meetings, and at least 80% of the class lectures.** The Teaching Assistant (TA) will take attendance each recitation meeting. If you sign the attendance sheet and then walk out of the recitation session, the TA will consider you absent for that recitation meeting.

Attendance during class lectures will be taken at **random days.** Only those days count toward the 5 extra credit points for attendance. Usually, lecture attendance will be taken whenever unannounced quizzes are given.

• ACADEMIC HONESTY: The Department of Statistics and Probability adheres to the policies of academic honesty as specified in the General Student Regulations 1.0, Protection of Scholarships and Grades, and in the All-University of Integrity of Scholarship and Grades which are included in Spartan Life: Student Handbook and Resource Guide. Students who plagiarize will receive a grade 0.0 on the assignment, test or quiz.

• ADA: To arrange for accommodation, a student should contact the Resource Center for People with Disabilities (353-9642) [http://www.rcpd.msu.edu](http://www.rcpd.msu.edu)

• LECTURE NOTES: Please visit the class website [http://www.stat.msu.edu](http://www.stat.msu.edu) before each class meeting. Print out the summary of the next lecture and the corresponding class-work, and bring them to class. On the class website, you will also find the syllabus, homework assignments, updated course outline, and other pertinent information.

• EXTRA CREDIT POLICY

Extra – credit Option 1: Every two weeks or fortnight, I will assign three or more exercises on chapters discussed the previous weeks as extra credit exercises. These exercises are not mandatory. However, if you decide to solve them for extra credit points, you **must bring your work to the office** and explain to me **how and why** you arrived at your answer. Please, be reminded that extra credit work for say, week N, cannot be carried forward to week N+1. If you present to me extra credit work for week N, while we are already say, in week N+1, I will discuss the solution with you but you will earn no extra credit. ALL EXTRA CREDIT WORK SUBMITTED TO THE SECRETARY WITHOUT MY PRIOR KNOWLEDGE, OR SLIPPED UNDER MY OFFICE DOOR WILL BE PUT INTO THE TRASH BASKET. Office hours or special appointments are the only times I can receive any student willing to defend his/her extra credit work.
Extra – credit Option 2: Throughout the semester, I will give an undetermined number of unannounced quizzes. These quizzes are designed to give your instructor a better feel of how much you have understood the concepts disseminated and also to help you curve your grade for the class. Unannounced quizzes are given ten minutes to the end of a lecture and are based on the concept discussed that day in class.

Extra – credit Option 3: MyStatLab Projects: You can earn as many as twenty online extra credit points if you complete at least 90% of all Online Projects and score at least 80% of the work posted. Before the extra credit points for MyStatLab Projects will be awarded, each MyStatLab participant must complete a five minute online survey, print out the Thank You receipt, and hand it to Professor Dikong. Other details of MyStatLab Extra Credit Projects will be announced in class.

- BE ADVISED TO TAKE ADVANTAGE OF AT LEAST ONE OR ALL OF THE EXTRA CREDIT OPTIONS TO CONTINUALLY CURVE YOUR CLASS GRADE THROUGHOUT THE SEMESTER.

MORE ON STUDENT CONDUCT

- The instructor has the responsibility to teach. Students have the right to learn. Everyone needs to be respectful of the rights of other people in the class.
- Please avoid frequent tardiness. Arriving late and/or leaving early is not acceptable.
- Disruptive behavior which impedes the teaching/learning process will not be tolerated – use of cell phones, audio devices (except tape recorders used to record), and abusive language are prohibited.
- Discussion is encouraged in my classroom. However, please be respectful when the instructor or other students are speaking: listen attentively, disagree politely, and at all times avoid ridiculing others. Finding mistakes in my lectures is, however, encouraged, and is part of the fun.
- Talking or whispering during lectures or presentations is not acceptable.
- MSU policies regarding harassment will be enforced.
- Class lasts entire period. Do not begin packing up or repeatedly checking the clock (indicating your impatience) before class is dismissed.
- Any form of cheating is considered a serious offense and will be dealt with according to MSU guidelines. All persons involved are considered responsible, including the person from whom others copy. Thus it is your responsibility to place your materials in such a way that others will not have an opportunity to copy them. You may be asked to sit in specific seats so as to spread out exams takers.

DESCRIPTION OF CHAPTERS

UNIT I: EXPLORING AND UNDERSTANDING DATA

CHAPTER 1 (4ed)  CHAPTER 2 (3ed)
What is Statistics? Data; Variables.
CHAPTER 2 (4ed)  CHAPTER 3 (3ed)  
**Displaying and Describing Categorical Data**

- Summarizing and Displaying a single Categorical Variable (Frequency and frequency tables; Bar charts; Pie charts)
- Exploring the relationship Between Two Categorical Variables (Contingency tables and conditional distributions; Segmented bar charts). *This bullet topic will be discussed only at the recitation meetings.*

CHAPTER 3 (4ed)  CHAPTER 4 (3ed)  
**Displaying and Summarizing Quantitative Data**

- Displaying Quantitative variable (Histograms; Stem-and-Leaf Displays; Dotplots; Boxplots and 5 – Number Summaries;
- The Distribution of a Quantitative Variable (Center, Symmetry, Spread, Outliers)

CHAPTER 4 (4ed)  CHAPTER 5 (3ed)  
**Understanding and Comparing Distributions**

- Comparing groups with Histograms;
- Comparing groups with Boxplots;

CHAPTER 5 (4ed)  CHAPTER 6 (3ed)  
**The Standard Deviation as a Ruler and the Normal Model**

- Standardizing with z – Scores;
- Shifting Data and Rescaling Data;
- Normal Models and Finding Percentiles;
- Normal Probability Plots.

**UNIT II: EXPLORING RELATIONSHIPS BETWEEN VARIABLES**

CHAPTER 6 (4ed)  CHAPTER 7 (3ed)  
**Scatterplots, Association, and Correlation**

- Scatterplots (Direction, Form, Strength, Unusual Features);
- Correlation Coefficient; Assumptions and Conditions for Correlation; Correlation Properties;
- Correlation Versus Causation
CHAPTER 7 (4ed)  CHAPTER 8 (3ed)

**Linear Regression**

- Least Squares line: The Line of “Best Fit;”
- Correlation and the Least Squares Line; Finding the Least Squares Line;
- Residuals;
- $R^2$ – The Variation Accounted For by the Model (Coefficient of Determination);
- Regression Assumptions and Conditions.

CHAPTER 8 (4ed)  CHAPTER 9 (3ed)

**Regression Wisdom**

- Extrapolation: Reaching Beyond the Data;
- Interpolation;
- Outliers, Leverage and Influence;
- Lurking Variables and Causation.

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**UNIT III: GATHERING DATA**

NOTE: This unit is to be studied **independently**. The material constitutes what is to be studied for the only *take home examination*. Assistance will be provided during your recitation meetings, office hours of the teaching assistants, but not during the main lecture meetings.

CHAPTER 9 (4ed)  CHAPTER 11 (3ed)

**Understanding Randomness**

- What is randomness?
- Generating random Numbers;
- Simulation; Simulation Component; Trial; Response Variable.
- Recommended Practice Exercises: Nos. 1, 2, 15, 16, 43 (4ed); Nos. 11, 12, 39 (3ed)

CHAPTER 10 (4ed)  CHAPTER 12 (3ed)

**SAMPLE SURVEYS**

- Three (3) Main Ideas of sampling;
- Population versus Sample; Population and Parameters; Sample and Statistics;
- Sampling designs: - simple random sampling, Stratified random sampling, Cluster sampling and multistage sampling; Systematic sampling;
- Bias; Nonresponse Bias; Response Bias;
- Common sampling Mistakes (Sample volunteers, sample conveniently, Bad sampling frame, Undercoverage)
- Recommended Practice Exercises: Nos. 17 – 23, 30, 34 (4ed); Nos. 7 – 16, 23, 34 (3ed)
CHAPTER 11 (4ed)  CHAPTER 13 (3ed)
EXPERIMENTS AND OBSERVATIONAL STUDIES

- Observational Studies;
- Randomized, Comparative Experiments;
- The Four Principles of experimental Design;
- Control Treatments;
- Blocking;
- Confounding.
- Recommended Practice Exercises: Nos. 21, 23, 24, 25, 28 (4ed); Nos. 7, 9, 13, 14, 20 (3ed)

UNIT IV:  RANDOMNESS AND PROBABILITY

CHAPTER 12 (4ed)  CHAPTER 14 (3ed)
FROM RANDOMNESS TO PROBABILITY

- Random experiments; Sample spaces; Events; Empirical probability; Venn diagrams; Tables;
  Trees; Intersection of events; Union of events; Complement of events; Disjoint events;
  Independence assumption.

CHAPTER 13 (4ed)  CHAPTER 15 (3ed)
PROBABILITY RULES

- Rule of Complementation;
- The Addition and General Addition Rule;
- The Multiplication and General Multiplication Rule;
- Conditional probability, Tree diagrams, and Bayes’ rule.

CHAPTER 14 (4ed)  CHAPTERS 16 AND 17 (3ed)
RANDOM VARIABLES AND PROBABILITY MODELS

- Expected values (mean) of a Discrete Random variable;
- Variance and Standard Deviation of a Discrete Random Variable;
- Combining (Properties) of Discrete Random Variables;
- The Geometric and the Binomial Probability Models;
- Modeling the Binomial Model with a Normal Model.
UNIT V FROM THE DATA AT HAND TO THE WORLD AT LARGE

CHAPTER 15 (4ed) CHAPTER 18 (3ed)
SAMPLING DISTRIBUTION MODELS

- Sampling Distribution of a Proportion (The Central Limit Theorem for Sample Proportions);
- Sampling Distribution of a Mean (The Central Limit Theorem for Sample Means).

CHAPTER 16 (4ed) CHAPTER 19 (3ed)
CONFIDENCE INTERVALS FOR PROPORTIONS

- A Confidence Interval (Definition);
- Interpreting Confidence Intervals;
- Meaning of C% Confidence;
- Margin of error; Assumptions and Conditions For Constructing Confidence Intervals.

CHAPTER 17 (4ed) CHAPTER 20 (3ed)
TESTING HYPOTHESES ABOUT PROPORTIONS

- Hypothesis – definition;
- Null and Alternative Hypotheses;
- One and Two – sided (One and Two – tailed) Alternatives;
- P – value and One – proportion z – test.

CHAPTER 18 (4ed) CHAPTER 23 (3ed)
INFERENCES ABOUT MEANS

- Confidence Inervals for Means (One – sample t – interval for the mean);
- Hypotheses Testing for Means (One – sample t – test for the mean).

CHAPTER 19 (4ed) CHAPTER 21 (3ed)
MORE ABOUT TESTS AND INTERVALS

- Statistically Significance, Alpha Level or Significance Level;
- Critical Value;
- Type I and Type II Errors;
- The Power of a Significance Test.
CHAPTER 20 (4ed)  CHAPTERS 22 AND 24 (3ed)

COMPARING GROUPS

- The Standard Deviation of a Difference of Two Proportions;
- Assumptions and conditions for Comparing Proportions;
- A Confidence Interval for the Difference Between Two Proportions;
- The Two – sample z – Test: Testing for the Difference Between Proportions;
- A Confidence Interval for the difference Between Two Means;
- The Two Sample t – Test: Testing for the difference Between Two Means;
- The Pooled t – Test.
**Tentative Course Outline** (Be reminded that this is a tentative schedule only. Minor adjustments are applicable.)

**INTRO STATS (4ed)**

<table>
<thead>
<tr>
<th>Week (of) (Aug. 31)</th>
<th>Recitation</th>
<th>Lectures On Chapters</th>
<th>Recommended Practice Exercises/Recitation Exercises</th>
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<tbody>
<tr>
<td>0</td>
<td></td>
<td>1 and 2a</td>
<td>No recitation! Read Chapters 10 and 11 (Sample Surveys; Experiments and Observational Studies)</td>
</tr>
<tr>
<td>1 (Sept. 07)</td>
<td>1</td>
<td>2b and 3a</td>
<td>Chp. 10: Nos. 17, 20, 22, 39. Chp. 11: Nos. 21, 23, 25, 28</td>
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<tr>
<td>3 (Sept. 21)</td>
<td>3</td>
<td>5 + Test 1 Review</td>
<td>Chp. 4: Nos. 16, 22, 25 – 28, 31, 33 – 34; Chp. 5: Nos. 7 – 8, 13, 15 – 16, 21, 23,</td>
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<tr>
<td>4 (Sept. 28)</td>
<td>4</td>
<td>6 + Test 1</td>
<td>Chp. 5: Nos. 43 – 48</td>
</tr>
<tr>
<td>5 (Oct. 05)</td>
<td>5</td>
<td>7 and 8a</td>
<td>Chp. 6: Nos. 1 – 2, 5 – 6, 11 – 14, 19 – 20, 23 – 24, 35 – 36, 39 – 40</td>
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<tr>
<td>6 (Oct. 12)</td>
<td>6</td>
<td>8b + Test 2 Review</td>
<td>Chp. 7: Nos. 15, 17, 19, 21, 25 – 28, 41</td>
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<tr>
<td>7 (Oct. 19)</td>
<td>7</td>
<td>12 + Test 2</td>
<td>Chp. 8: Nos. 25 – 26</td>
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<tr>
<td>9 (Oct. 02)</td>
<td>9</td>
<td>14b + 15a</td>
<td>Chp. 13: Nos. 15 – 18, 20 – 23, 27 – 32, 44, 51; Chp. 14: Nos. 15 – 20, 35 – 44</td>
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<td>10 (Nov. 09)</td>
<td>10</td>
<td>15b + 16a + Test 3 Review</td>
<td>Chp. 15: Nos. 23, 25, 27, 28 – 29, 32, 34, 36, 38, 45 – 46, 49 – 50, 59 – 60</td>
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<td>11 (Nov. 16)</td>
<td>11</td>
<td>16b and 18a Test 3</td>
<td>Chp. 16: Nos. 11, 13 – 17, 21, 25 – 26, 31 – 32, 34 – 35, 38, 43 – 44; Chp. 18: Nos. 3 – 4, 15 – 20, 23 – 24, 29 – 30, 32, 39 – 40</td>
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<tr>
<td>12 (Nov. 23)</td>
<td>12</td>
<td>17 and 18b (Test 4 – Take Home Test Due)</td>
<td>Chp. 17: Nos. 11 – 15, 19, 21 – 24, 29, 35; Chp. 18: Nos. 37 – 38</td>
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<tr>
<td>13 (Nov. 30)</td>
<td>13</td>
<td>19 + 20a</td>
<td>Chp. 19: Nos. 3 – 4, 7 – 14, 31 – 38; Chp. 20: Nos. 5 – 6, 9, 11, 27 – 31, 33 – 34</td>
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<td>14 (Dec. 07)</td>
<td>14</td>
<td>20b + Final Exam. Review</td>
<td>Chap. 20: Nos. 35 – 41, 63 – 64, 77 – 78,</td>
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**Tentative Course Outline** *(Be reminded that this is a tentative schedule only. Minor adjustments are applicable.)*

**INTRO STATS (3ed)**

<table>
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<tr>
<th>Week (of)</th>
<th>Recitation</th>
<th>Lectures On Chapters</th>
<th>Recommended Practice Exercises/ <strong>Recitation Exercises</strong></th>
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<tr>
<td>1 (Aug. 31)</td>
<td>0</td>
<td>1 +2 + 3a</td>
<td>No recitation! <strong>Read</strong> Chapters 12 and 13 (Sample Surveys; Experiments and Observational Studies)</td>
</tr>
<tr>
<td>2 (Sept. 07)</td>
<td>1</td>
<td>3b and 4a</td>
<td><strong>Chp. 10</strong>: Nos. 9, 13, 15, 34. <strong>Chp. 11</strong>: Nos. 7, 9, 13, 20</td>
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<td>3 (Sept. 14)</td>
<td>2</td>
<td>4b and 5a</td>
<td><strong>Chp. 2</strong>: Nos. 1 – 4, 7 – 12, 13 – 18, 26 – 28; <strong>Chp. 3</strong>: Nos. 5 – 7, 9 – 15, 25 – 28, 32 – 33, 37 – 38; <strong>Chp. 4</strong>: Nos. 19 – 20, 23 – 25, 33 – 34</td>
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<td>4 (Sept. 21)</td>
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<td><strong>Chp. 5</strong>: Nos. 5 – 6, 8 – 9, 13, 19 – 25, 29 – 32, 37; <strong>Chp. 6</strong>: Nos. 3 – 6, 15 – 16, 18 – 19, 27 – 29</td>
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<td>5 (Sept. 28)</td>
<td>4</td>
<td>6b + Review Test 1 + Test 1</td>
<td><strong>Chp. 6</strong>: Nos. 39 – 52</td>
</tr>
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<td>6 (Oct. 05)</td>
<td>5</td>
<td>7 and 8</td>
<td><strong>Chp. 7</strong>: Nos. 1 – 6, 11 – 12, 15 – 18, 27 – 28, 37, 39; <strong>Chp. 8</strong>: Nos. 1, 3, 5, 11 – 17, 23 – 24, 28</td>
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<tr>
<td>7 (Oct. 12)</td>
<td>6</td>
<td>9 + Test 2 Review</td>
<td><strong>Chp. 9</strong>: Nos. 1, 2, 5, 6, 11 – 12</td>
</tr>
<tr>
<td>8 (Oct. 19)</td>
<td>7</td>
<td>14 + Test 2</td>
<td><strong>Chp. 14</strong>: Nos. 1 – 2, 11 – 12, 15 – 16</td>
</tr>
<tr>
<td>9 (Oct. 26)</td>
<td>8</td>
<td>15 and 16a</td>
<td><strong>Chp. 14</strong>: Nos. 19 – 21, 31 – 39; <strong>Chp. 15</strong>: Nos. 1 – 4, 7 – 10, 13 – 18, 21 – 22, 27 – 28, 30 – 32, 41</td>
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<tr>
<td>10 (Nov. 02)</td>
<td>9</td>
<td>16b + 17</td>
<td><strong>Chp. 16</strong>: Nos. 1 – 3, 5 – 10, 17 – 18, 27 – 30; <strong>Chp. 17</strong>: Nos. 1 – 2, 9 – 10, 15 – 16, 19 – 24, 27 – 31</td>
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<td>11 (Nov. 09)</td>
<td>10</td>
<td>18 + 19a + Test 3 Review</td>
<td><strong>Chp. 18</strong>: Nos. 5 – 7, 11 – 18, 22 – 26, 33, 37 – 39, 47, 48</td>
</tr>
<tr>
<td>12 (Nov. 16)</td>
<td>11</td>
<td>19b and 23a <strong>Test 3</strong></td>
<td><strong>Chp. 19</strong>: Nos. 1 – 3, 5, 7, 13 – 15, 17 – 18, 22, 26, 28, 30, 34; <strong>Chp. 23</strong>: Nos. 1 – 2, 5 – 10, 13 – 15, 17 – 18, 21 – 22,</td>
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<td>13 (Nov. 23)</td>
<td>12</td>
<td>20 and 23b (Test 4 – Take Home Test Due)</td>
<td><strong>Chp. 20</strong>: Nos. 1 – 3, 11 – 12, 13 – 16, 19 – 20, 23, 28; <strong>Chp. 23</strong>: Nos. 27 – 28, 31 – 34, 37</td>
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<td>14 (Nov. 30)</td>
<td>13</td>
<td>21 + 22</td>
<td><strong>Chp. 21</strong>: Nos. 1, 3, 5, 11, 17 – 21, 23; <strong>Chp. 22</strong>: Nos. 7 – 12, 15 – 16, 19 – 20, 27 – 29, 32, 38</td>
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<tr>
<td>15 (Dec. 07)</td>
<td>14</td>
<td>24 + Final Exam. Review</td>
<td><strong>Chp. 24</strong>: Nos. 13 – 14, 31 – 32</td>
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</table>

**DISCLAIMER:** The instructor reserves the right to make any changes he considers academically advisable. Changes will be announced in class. It is your responsibility to keep up with any changed policies.