Part 1: Course Information

LECTURES: WIDT 007; 9:30AM-10:20AM, MWF

Instructor: Pata Rujirawat Office: ANSC 309 Phone: 435-797-0746

E-mail: pata.rujiwart@usu.edu

IF YOU WOULD LIKE TO CONTACT ME ONLINE, PLEASE USE ‘INBOX’ ON CANVAS BEFORE CONSIDERING USING MY REGULAR EMAIL ADDRESS ABOVE. THANK YOU!!

Office Hours: MWF 1PM-2PM; other times by appointment.

Course Prerequisite: One of the following within the last year or three consecutive semesters (including summer): ACT Math score of at least 25 or equivalent SAT Math score, Grade of C- or better in MATH 1050 or MATH 1100, or satisfactory score on the Math Placement Exam.

Each student is responsible for both knowing and satisfying the prerequisites for this course. If a student does not possess the necessary prerequisites, he or she will be dropped from the course by computer check and the notification of such a drop generally occurs after the date when any refund is possible and most likely after the ADD deadline. Please make sure you are qualified to be enrolled in this course, and if you are unsure, ask the instructor.

Recitation Leaders: Aaron Becker, Lukas Lehmann and Justin Wheeler.

Recitation Leader’s Office/Tutor Hours: The recitation leaders will maintain hours for open tutoring at USU Math and Stats Drop-in Tutoring Center which is now part of the Department of Mathematics and Statistics. The times and location will be announced in class and posted on Canvas.

Course Requirements:

1. Class Materials: You are not required to purchase any textbook. All class materials (reading materials, tutorial videos, etc.) will be available on Class Notebook (Microsoft OneNote) via Canvas. All class materials are adapted from the following main Open Education Resources (OER) textbooks:
   - Online Statistics Education (http://onlinestatbook.com/)
   - Open Learning Initiative-Probability&Statistics (https://oli.cmu.edu/courses/probability-and-statistics/)
   - Introductory Statistics (https://openstax.org/details/books/introductory-statistics)

2. Office 365: Office 365 including Word, Excel, OneNote and more is FREE for USU students. To sign up Office 365 for free, follow the instructions from https://usu.service-now.com/usu/knowledge.do?sysparm_document_key=kb_knowledge_2bb65aa0842b2100cfa6651a9cd230f5

   ***IMPORTANT NOTE*** Some instructions from the link above is NOT up-to-date. First, follow the instructions for signing up Office 365 with your ***@aggiemail.usu.edu. Then, click Class Notebook from the navigation pane on the left of your Canvas course and then sign in with you’re A*******@aggies.usu.edu (replace A***** with your A – number).

3. Microsoft Excel and Geogebrk: There will be some assignments that require you to use a statistical software package. You may use any statistical software package of your choice (such as Microsoft Excel, Geogebrk, StatCrunch, SAS, R, SPSS, Mathlab, Minitab etc.) to do the assignments. However, I and recitation leaders will be
primarily using either Microsoft Excel or GeoGebra for class presentation, as such we will NOT be able to provide support for software other than Excel or GeoGebra. GeoGebra is a FREE math app (https://www.geogebra.org/). Students may find the list of compatible devices for GeoGebra app and its installation instructions from https://wiki.geogebra.org/en/Reference:GeoGebra_Installation

I will be using either Microsoft Excel and GeoGebra when presenting some class materials. Please note that your abilities to do well on exams should not rely on the abilities/capacities of these apps. For most quizzes and exams, you will be allowed to use these apps via computers at the testing center. However, a cell-phone calculator is also NOT allowed during an exam or a quiz.

4. **Canvas:** USU uses Canvas as an online course management system. This course is designed to use Canvas to communicate with your classmates and your instructor; and to deliver some course materials, assignments, grades, course announcements, and a course calendar. You are responsible for getting an access to Canvas in order to gain the full access of all course materials and information. Please configure your ‘Notification Preference’ from Canvas > Settings > Notifications so that you would not miss any important class notifications sent out from Canvas.

*Technical Difficulties:* The Internet is great, but it is not always trouble free. Problems with both hardware and software can occur at any time. I cannot help you with this. I will not accept late work because of technical problems. **Be sure to complete your work well before the deadline to allow for technical mishaps.** If your computer or internet service fails, there are many computer labs in different locations on campus you can use. In addition, your local library may have computers for public use. All these are free. Kinko’s copy centers rent computers by the hour in their shops. Remember, **system failure or personal situation problems are not acceptable reasons for missing due dates.**

5. **Recitations:** In addition to class, you are required to register for one recitation section. There will be group work in each recitation, as such your required to attend each recitation and to participate in group activities in order to earn credit that will be counted toward your final grade.

6. **Course Fee:** A $105 course fee is assessed to each student to help pay the costs of teaching assistants, recitation leaders and staffing of the Aggie Math Learning Center (AMLC) location in TSC 225A. The teaching assistants and recitation leaders attend class, teach recitation sessions and coordinate material under the supervision of the course instructor, and assist with the administration and grading of exams, quizzes, and homework. The AMLC provides a shared area and resource for students to get help from all teaching assistants and recitation leaders assigned to STAT 2000, regardless the recitation or section for which students are registered. The course fee also supports the development and coordination of materials and other resources, intended not only to improve consistency and quality of this course, but also to reduce the overall cost to you. All of these supports are provided to help ensure your success in Introduction to Statistical Methods.

**Part 2: Course Objectives and Coverage**

**Course Objectives:** The purpose of this course is to provide students to:

- Be familiar with the logic and vocabulary of statistics.
- Understand of how statistical methods are applied to research---a greater appreciation of the scientific method.
- Be aware of how statistics and statistical methods are properly applied, and increased ability to think critically about the assumptions, evidence, and conclusion of others.
- A foundation for additional coursework in research methods and statistics: STAT 2000 is a suitable pre-requisite for higher level statistics class such as Linear Regression and Time Series, and Design of Experiments which use the mathematical notation extensively.

**Course Coverage:** Introduction to statistical concepts, graphical techniques, probability, distributions, estimation, one and two sample testing, chi-square tests, and simple linear regression, one-way ANOVA.

The tentative topics/lessons coverage in details are given via Canvas.
Part 3: Grading and Exams

**Grading:** Final course grades will be weighted as follows:

<table>
<thead>
<tr>
<th>Activities</th>
<th>Contribution to Final Grade</th>
<th>Number of lowest scores that will be dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework Assignments via Canvas</td>
<td>15%</td>
<td>3</td>
</tr>
<tr>
<td>In-Class Activities</td>
<td>7.5%</td>
<td>3</td>
</tr>
<tr>
<td>Recitation Activities</td>
<td>7.5%</td>
<td>3</td>
</tr>
<tr>
<td>Quizzes</td>
<td>35%</td>
<td>None</td>
</tr>
<tr>
<td>Small Projects</td>
<td>25%</td>
<td>None</td>
</tr>
<tr>
<td>Final Projects</td>
<td>10%</td>
<td>None</td>
</tr>
</tbody>
</table>

*The details for the activities above are provided via Canvas.*

**Course Context:** Students are responsible for completing lesson assignments as for preparing for next class. Class time is used to engage students using in-class activities (ex. pop-quizzes, review the more difficult concepts/exercises, discuss common questions from students, explore real-world applications etc.). Recitation time is mostly used to engage students in group work, or cooperative learning. Students are required to take all quizzes at USU Testing Center on Logan campus.

Small Projects will due at various points in the semester. The final project requires you to synthesize most material from the course and helps solidify your understanding of statistical methods. The goals of the projects are to show relevance of statistical concepts and statistical methods in real world; to give you opportunity to express your opinion in the context of problem; and to build teamwork skills which are required for statisticians.

**Viewing Grades in Canvas:**

All grades will be available via ‘Grades’ on Canvas. Please consider the online gradebook as a courtesy to you, subject to errors given various upgrades and shifts in the software. I reserve the right to make gradebook corrections to keep it consistent with the syllabus so that your grade reflects true performance, not software or user error. If you see something that does not make sense, please notify me as soon as possible.

**Grading Scale:**

The following scale will be used as a starting point for determining the final course grades. When I have the final percentage score for each student, I will look at the distribution of scores, and if it is necessary, I will make adjustments in this scale to get the balance of grades that I feel is appropriate for this course. As such, the final grading scale may deviate in some cases from the one provided below. Again, there is no provision being made for extra credit. The course work on which you are to be evaluated ends with the final exam, and no exceptions can be made.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
</tr>
<tr>
<td>A-</td>
<td>88-92%</td>
</tr>
<tr>
<td>B+</td>
<td>86-87%</td>
</tr>
<tr>
<td>B</td>
<td>83-85%</td>
</tr>
<tr>
<td>B-</td>
<td>80-82%</td>
</tr>
<tr>
<td>C+</td>
<td>76-79%</td>
</tr>
<tr>
<td>C</td>
<td>72-75%</td>
</tr>
<tr>
<td>C-</td>
<td>70-71%</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
</tr>
<tr>
<td>F</td>
<td>0-59%</td>
</tr>
</tbody>
</table>

Part 4: Course Policy

1. **Examination Policy:**
   1.1. A PICTURE ID IS REQUIRED FOR ALL EXAMS.
   1.2. **Use of Portable Electronic Devices:** The policy of the Department of Mathematics and Statistics is that, unless an examination requires a specific technology device, no electronic devices can be activated and positioned where they can be seen or used during a test. In particular, cell phones must be turned off and placed inside bags, or left with the instructor. Cell phones should not be in pockets or attached to belts during a test. The same is true of any wireless capable device. Furthermore, headphones cannot be worn. A student found to be violating this policy would automatically receive a score of zero on that test and may be subject to further disciplinary action.
Courses requiring ordinary or graphing calculators will continue to allow such devices, but the devices must not be wireless capable devices or portable computers, personal data assistants (PDA’s), or devices otherwise able to send and/or receive voice messages, data, graphics or photographic images. In the unusual circumstances that a student needs his/her cell phone active during a test because an emergency call is expected, the active cell phone must be left at the front of the room with the instructor.

2. **NO MAKE-UP QUIZZES AND ASSIGNMENTS WILL BE GIVEN.** Any schedule conflict must be resolved PRIOR each quiz, or assignment. Acceptable excuses for the conflicts that will be accommodated are limited to: MILITARY DUTY, UNIVERSITY-SPONSORED EVENTS, JURY DUTY, SERIOUS ILLNESS OR MEDICAL CONDITION TREATED BY A PHYSICIAN, DEATH IN THE IMMEDIATE FAMILY, and CHILDBIRTH. ALL OF THE ABOVE MUST BE SUPPORTED BY OFFICIAL WRITTEN DOCUMENTATION. All arrangements for making up work must be made with me, not your recitation instructor.

3. **NO MAKE-UP IN-CLASS ACTIVITIES AND/OR RECITATION ACTIVITIES.** ONLY missing activities with due to any schedule conflict WITH ACCEPTABLE EXCUSES (listed above in #2) will be dropped.

4. **NO MAKE-UP WORKS WILL BE GIVEN TO ANY STUDENT WHO REGISTERS LATE FOR THE CLASS.**

5. **KEEP YOUR GRADED WORK in case there is a discrepancy in your final grade and we need to verify your scores.**

6. Any question/problem with the grading must be resolved within 7 days from the time the scores of exams/quizzes/assignments answers are returned; otherwise, the grade that is given is considered to be the grade for that work.

**Attendance:** You are still responsible for any information that was covered during that class or recitation period, or any assignments that were handed out. With the number of students we are dealing with in this class, I simply do not have the time to go over the material on an individual basis each time someone chooses not to attend class or recitation. Please be aware that we will cover topics/issues in class or recitation that may not be found in Canvas, and you will be tested on these topics.

**Late Registration:** The instructor is NOT responsible for any accommodations to students who register late for this class. The students are fully responsible for catching up with previous class materials and/or any upcoming assignments. No due-date extension for any past -due assignments and any upcoming assignments will be granted to the students.

**Registration Issues:** Students are FULLY responsible for any registration issues and their consequences. The instructor will not provide any accommodations to students with their issues involving their registration. For example, a student was dropped from the course due to his or her registration issues and hence his or her records on Canvas are no longer available to the instructor. The instructor is not responsible for such loss of the student's records due to the registration issues.

**Academic Integrity**
Each student in this course is expected to abide by the Utah State University Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work. You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Accommodations for students with disabilities
Americans with Disabilities Act: Title II of the Americans Disabilities Act mandates that all State and Local Government programs be administered in such a manner as to protect qualified individuals with disabilities from discriminatory treatment. Utah State University complies with this policy, and therefore:
“If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the DRC, during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc. must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats—large print, audio, diskette or Braille.”

Part 5: Miscellaneous

Course Management:
This is a large class, which limits the amount of flexibility I have in meeting some of your individual needs. The policy for making up missed quizzes and assignments is provided above under the section on GRADING. The policy is clear and unambiguous, and has been developed with input from the administrators in the Dept. of Mathematics and Statistics. As such, there can be no allowances made for making up work for reasons other than those given above. This means that some of you will at some point be told that you cannot make-up work due to a conflict or an unforeseen event. The only guarantee I can give you is that everyone will be subject to the same standard, without bias. You can be sure that if I tell you that you cannot make up work, I have also told the same thing to everyone else who made such a request, unless the reason is among those specified above. I will treat everyone equally, and I will be consistent. This is the only way I can be fair to all of you.

My Role:
As the instructor for this course, I have a responsibility to perform certain tasks; among them are giving assignments and exams, evaluating your performance, and assigning you a grade for the course. For my part, I also feel the responsibility to provide you the opportunity to learn about statistical analysis as stated in the course objectives above. Someone has determined that your field of study should include a course in statistics; that is, they feel it is important for you to understand statistical concepts. As such, you are being required to take this course. I happen to agree with them, and also feel that comprehension of statistical concepts will be beneficial. But rather than being perceived as an adversary and someone who is going to make your life miserable, I would rather be perceived as the person who is going to help you gain the knowledge that someone has determined to be an important part of your program. I will do whatever I can to make this course interesting, relevant, and to assist you with your questions. I hope that you leave the class being as excited about statistics as I am, and that you have a positive experience.

My Advice:
Do not let any sources of confusion go unresolved. The nature of this course is such that new concepts tend to build upon the previous concepts, so if you do not master the early material, it makes everything more difficult to grasp later on in the course. Soon, you will be lost, usually, hopelessly. Use the available resources—myself, the tutor lab for this course, the recitation meetings, the open tutoring—for assistance. That is, find excuses to get help if you need it, because small problems have a way of becoming BIG problems if you do not give them your attention. In addition, feel free to ask questions about what is being said during the lectures. Do not leave the lecture confused because you didn’t ask a question. In summary: 1. Don’t get behind. 2. Ask A LOT of questions, in lectures and in the recitations. 3. Believe that Algebra is important, and it will be much easier to learn.