FALL 2010 ST301 Lec 005 Syllabus

Course: FALL 2010 ST301 Lec 005 (TH, 11:00-12:15)
Location: MICROBIAL SCIENCES BLDG 1520
Instructor: AKICHIKA OZEKI (AKI)
Office: Medical Science Center (MSC) 1217a (1F)
Phone: 262.7478
Email: ozeki@wisc.edu
Office hour: Tuesday 12:30-13:30, WED 2:45-3:45pm.
Course Website: www.stat.wisc.edu/~ozeki/DIR-STAT/ST301-F10-AKI.html

1 Contents (and related future courses)

- **Textbook:** Statistical Reasoning and Methods, Revised ed. (2004), Tsui/Johnson.
  

  This textbook is widely used in st301 course every year.

- We will learn basic statistics. At the end of the semester, you will be ready for various other statistics courses. In addition to theoretical issues, we use free statistical software R which will be essential in your future (project, research etc). Download it from (http://www.r-project.org/). We will have program related HWs occasionally. Even if you don’t know programming, don’t worry. If you can use a hand calculator, you can use R. We will have R introduction in class/discussion.

- We mainly follow the textbook. Here is what we will learn:
  
  Ch1: Why need statistics?
  Ch2: Basic terminology in statistics.
  Intro. software R (**ST224, ST312, Stat. for Engnr, ST424 Experimental design.**)
  Ch4: Probability (some mathematics needed for statistics) (**MATH 431, Probability theory.**)
  Ch5: Distribution (eg. flipping a coin several times= binomial distribution.)
  Ch6: Normal distribution (used everywhere in statistics.)
  Ch7: Sampling distribution and Central Limit Theorem (**ST609, master level mathematical stat.**)
  Ch8: Inference about population mean. Confidence interval. Hypothesis test. (used everywhere.)
  Ch9: Small sample inference for normal population
  Ch10: Comparing two treatments (**ST424 Experimental design.**)
  Ch11: Analyzing count data.
  Ch12: Regression analysis (**ST333, Applied Regression analysis.**)
2 Basic Information

• TAs:
  Jie Wei, jwei3@wisc.edu, office = MSC 1214 (1F), phone=263.3615
  Office Hour= Thurs 12:30-1:30pm.
  Chanhan Hsu, cchsu2@wisc.edu, office = MSC B248 (Basement), phone=263.7329
  Office Hour=Mon, Wed 10am-11:30am,

• Discussion:
  DIS 351 Tue 1:20-2:10PM, 38 AGR HALL, by Jie Wei
  DIS 352 Wed 12:05-12:55PM, 225 INGRAHAM, by Chanhan Hsu
  DIS 353 Wed 1:20-2:10PM, 482 VAN HISE, by Chanhan Hsu
  DIS 354 Tue 4:00-4:50PM, 58 BASCOM, by Chanhan Hsu
  DIS 355 Tue 2:25-3:15PM, 58 BASCOM, by Chanhan Hsu
  DIS 356 Wed 1:20-2:10PM, 110 SOCIAL WRK, by Jie Wei
  Please stick on the same TA (grading purpose). You can change it within the same TA with the TAs’ consent (seating issue.) NO NEED to have the instructor’s approval.

• Grading policy: HW=10%, Discussion=15% . Mid1=20% , Mid2=20%, Final= 30%, Others=5%.

  Others:
  1) Visit your TA’s office by 2010/9/10 during office hour = 1%.
  2) Visit my office by 2010/9/10 during office hour = 1%.
  3) Submit intermediate feedback 1 (just after mid 1 discussion) = 1%.
  4) Submit intermediate feedback 2 (just after mid 2 discussion) = 1%.
  5) Submit final course evaluation (in class) = 1%.

  Note 1: Discussion=15% will be decided by each TA. They will explain it during the 1st discussion.

  Note 2: Final grade is: A, AB, B, C, D, F. It is a relative scale. Approximately, we expect
  A=top 35%, AB=10%, B=35%, BC=10%, C=5%, D=5%, F=if your total score is less than 50 points. (This F-range is strict.)

  Note 3: (Kind of Rebate Bonus points, very little though) We record your visit to TA or instructor’s office hour if you tell us your name at that time. Or if you ask questions during the lecture or after the lecture, send me email within the day to me and summarize what you asked and what you learned. We will record it. If you forget to send me email within the day, sorry, we do not record it.

  If your final score is a little bit below a border (within 1 points), AND you visit office hours frequently, then you have higher chance to get an upgrade. We count your effort!
Eg 1: If your total score is 49.5 points, and you visit office hour frequently, you are likely to get D.

Eg 2: Suppose your total score is below 0.5 points of A range. If you do not visit office hour at all, then you get AB. If you visit office hour frequently, you are likely to get A.

Eg 3: If your total score is 48.5 points, and you visit office hour every week, then still, you get F.

Note 4: Your points will be updated regularly in learnuw.wisc.edu.

- **HW:** Posted every Friday on the course webpage. Due Thursday in class exact 11:05am. Late penalty -2 points, every 24 hours thereafter.

  For example, if you submit the HW 11:55am Thursday, your score is 10-2=8 points. If you submit the HW Friday sometime, 10-2(Thu)-2(Fri)=6 points. I will prepare HW submission folders for each TA. They will be placed on the front line of the class. When you come to the class, please leave the HW there. Please use the formatted HW front cover. Use staple. Paper-clips, folded corners, etc. are not accepted. No nick name please. Violation will be -1 point each.

  Once you submit HW on time, you will automatically receive full 10 points. We will have 12 HWs. The lowest 2 HWs will be dropped. Solutions will be prepared by TAs.

Note 1: If you want to submit it earlier (eg. you can not come on Thursday etc), please pass it to your TA directly.

Note 2: The reason you get full score is you are encouraged to work HWs with your friends. We just want you to catch up with the class every week.

Note 3: If you oversleep on Thursday morning, please give up 2 points, send email to me and TA immediately, come to school safely, and hand it in your TA’s mailbox. Your life is more important than one HW. If we do not receive your email, TA will not notice your HW and you will lose more points.

Note 4: TA will check some of your answers. Please check the rest by yourself. Answer will be provided shortly after the due.

- **Exam plan:** Bring a hand calculator (no cell phone allowed) and your student ID. Seating will be alphabetical order.

  **Mid1 Oct 7 (Thu) in class 75 min** = Ch1, 2, 4, 5, 6. (1 letter size cheating paper)

  **Mid2 Nov 11 (Thu) in class 75 min** = Ch6, 7, 8, 9. (2 letter size cheating papers.)

  **Final Dec 21 (Tue) 2:45-4:45pm Room=TBD** =Mid1+Mid2+Ch10, 11, 12. (3 letter size cheating papers.)

  Note 1: Scratch paper will be provided.

  Note 2: All problems are multiple choice. About 60% of exam questions are very similar to HWs. 40% are lecture material and computer related questions.

  Note 3: We will have review session, either during the class and/or discussion. We will provide sample exams.

  Note 4: Dean’s permission will be needed for rescheduling exams.
Note 5: If you get sick, (not because you do not study well, of course) email me and TA by 6pm the day before exams. We will reschedule the exam.

- Statistics department offers free (group) tutor. See stat.wisc.edu top page for more details.
- Private tutor is possible if you want. But our two TAs will not be your private tutor to avoid unfairness. Please send me email if you would like to have one anytime in the future. I will forward it to statistics graduate students. If they are available, they will email you.
- We only use English ALL THE TIME to avoid unfairness EVEN IF THERE ARE ONLY YOU AND ME IN A ROOM on campus.
- Romantic relationship (?) is not allowed between us to avoid unfairness. Even if your TA’s are so attractive, please wait until the semester ends. This is an official stance imposed on all TAs.

3 Suggestions

- Preparing for class: You should expect to spend at least five hours per week outside of class studying. ”Studying” does not mean just doing assigned exercises. The number of problems we assign is probably not enough for most students. It is your responsibility to find and work additional exercises as needed. The five hours (minimum) of studying includes reading the texts (before and after the material is covered in lecture), writing up problems to turn in for feedback, working additional problems as needed, formulating coherent questions for your TA, and reviewing. The lectures are intended to supplement and highlight the reading and exercises, and you will be expected to learn and understand the lecture material as well as the reading and assigned exercises. Because of time constraints, it isn’t possible to do examples of every kind of HW problem in class, nor is it possible to discuss everything you need to know in class. Here are some recommendations for how to get the most out of class. You should quickly read the material in the text before it is covered in lecture so that you’ll know what to listen for. After the lecture, the big ideas will stand out for you, and some of the most difficult ideas will have been clarified so that when you sit down to re-read the text carefully, you will be able to focus on the details. Then, when you do the exercises, that is where you will actually start to learn the material. The goal of working the exercises is not to just get them done and hand something in. The goal is to learn something. Please give yourself enough time to learn something from the problems. If a problem is difficult, think about what makes it difficult. If you had to get help (from a person or a book) to finish a problem, don’t just move on to the next one. Find more problems similar to that one and do them until you no longer need help.

- Preparing for Discussion section: Your weekly discussion section gives you a chance to discuss anything related to the course. You can go over problems, ask questions on examples or ideas discussed in lecture, review, etc. You will get the most out of your discussion section if you have already spent considerable time working on the problems or thinking about the ideas from lecture.

- Missing a lecture: If you miss a lecture, you should contact your classmate as soon as possible to find out what you missed and to get a copy of the notes. Please do not expect me or the TA to give you notes or repeat a lecture for you during office hours.