STAT:3510:0BBB (22S:101:BBB)
Biostatistics

Spring 2015
Lecture: 12:30 – 1:20 pm MWF in LR2 VAN

Instructor: Victor Chan       Office Hours: 11:00 – 12:00 pm MWF and by appointment
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Department Information: Department of Statistics and Actuarial Science, 241 SH, 335-2082

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Course Description and Objective: The course is designed to help you learn the basic ideas of
statistics and statistical methods that are useful in the biological and health sciences. We will
cover some or most of the sections in Chapters 2-3, 6-11, 14-15 and 17-18 of the text.

The topics to be covered include: types of data, frequency table, statistical graphs, numerical
summary measures, basic probability, conditional probability, Bayes Theorem, binomial
distribution, Poisson distribution, normal distribution, sampling distribution of the mean, the
Central Limit Theorem, confidence intervals and hypothesis testing for means and proportions,
the chi-square test for a contingency table, correlation and simple linear regression.

After completing the course, you should have understood the concepts and ideas underlying the
topics, and be able to apply the statistical methods and techniques you have learned in real-world
settings and interpret the results.

Attendance at lecture: Attendance is not taken at lecture. But it goes without saying that regular
attendance is necessary for getting the most out of a course as well as for getting a good grade. In
the event of an absence, you are responsible for the materials covered in class and you will need
to catch up, e.g. by getting relevant notes from a classmate, etc.

Attendance at discussion section: Attendance is TAKEN during discussion section meetings
and will count toward your overall grade---it is worth 3% of the grade. You will, however, only
need to attend a certain percentage of the total possible number of meetings during the semester
in order to fulfill the attendance requirement and earn the 3%. Your TA will provide you with
more information.

Homework and Lab Assignments: In general homework or lab work will be assigned about
once a week, and will be collected for grading. You are strongly encouraged to work diligently on
the assigned work, not only because doing so will help you assimilate the materials but also
because some of the exam questions may be similar to the homework problems. You are free to work with your classmates on the homework, but you must submit your own solution. Homework and lab assignments will be posted on ICON. Due to the size of the class and time constraints, the grader may only grade a random subset of the assigned problems.

Late homework or lab work will not be accepted, unless due to “illness, mandatory religious obligations, or other unavoidable circumstances or University activities”.

**Statistical Package**: We will use a user-friendly statistical software package called Minitab to create graphs and plots and to do statistical computations. Minitab is available in the computers at the library, as well as at most computer labs on campus. It can also be accessed remotely through UI’s Virtual Desktop service: [http://its.uiowa.edu/virtualdesktop](http://its.uiowa.edu/virtualdesktop). Lab assignments will involve using Minitab to analyze data sets (which will be provided).

**Quizzes**: There will be three short (15-minute) quizzes during the semester. They are scheduled for

- Quiz 1: Friday, February 13
- Quiz 2: Friday, March 27
- Quiz 3: Friday, May 1

The policy on make-ups for quizzes is the same as that for the exams.

**Exams**: There will be two 1-hour midterm exams and a comprehensive final. The midterms are tentatively scheduled for

- Midterm 1: Monday, February 23
- Midterm 2: Monday, April 6

The date and time of the final exam will be announced by the University.

Missed exams may be made up only with documentation of reasons, as required by University policy.

**Grade breakdown**: Attendance in discussion section (3%), HW and labs (15%), Quizzes (8%), Midterm 1 (21%), Midterm 2 (21%), Final (32%).

**Approx. grading scale**:  

- 90 – 100% → A/A-;  
- 78 – 89% → B+/B/B-;  
- 66 – 77% → C+/C/C-;  
- 55 – 65% → D.

The cut-off points separating the grade levels may be lowered at the instructor’s discretion.
College of Liberal Arts and Sciences: Policies and Procedures

Administrative Home
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.

Electronic Communication
University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2, k.11).

Accommodations for Disabilities
A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See www.uiowa.edu/~sds/ for more information.

Academic Honesty
All CLAS students have, in essence, agreed to the College's Code of Academic Honesty: “I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty.” Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies
The final examination schedule for each class is announced around the fifth week of the semester by the Registrar. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the dates and times of each final exam, the complete schedule will be published on the Registrar's web site.

Making a Suggestion or a Complaint
Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

Understanding Sexual Harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather
In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Department of Public Safety website.