

Course Information for 22S:101 “Biostatistics” Spring 2008, Sections 006 and 007

Instructor

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Course Format

Lectures 11:30 am-12:20 pm MWF (section 006); 10:30 am-11:20 am MWF (section 007).

Office Hours

1:00-3:00 pm Tuesdays; 2:00-3:00 pm Thursdays; or by appointment.

Department Information

Department of Statistics and Actuarial Science, 241 Schaeffer Hall, Phone 335-2082

Department Executive Officer

Professor Luke Tierney, 241 SH, Phone 335-0712, E-mail luke-tierney@uiowa.edu

Textbook

The required textbook for this course is *Principles of Biostatistics*, 2nd edition, by Marcello Pagano and Kimberlee Gauvreau, 2000, Duxbury Press.

Course Prerequisite — 22M:001 (Basic Algebra) or equivalent.

Course Objective

To learn some of the basic statistical methods commonly used in the health sciences and other biological sciences, so that you can read, interpret, and evaluate elementary statistical analyses reported in the life science literature.

Exams

- Two 90-minute midterm exams, given 8:00-9:30 pm Thursday, February 28, and 8:00-9:30 pm Thursday, April 10. Both exams will be given in 1505 SC.
- One 90-minute final exam, given 9:45-11:45 am Wednesday, May 14. Room TBA.

Calculators may be used for exams, and any necessary statistical tables will be provided. One 8.5”×11” formula sheet (both sides) may be used for each exam; this sheet will be handed in with the exam. If an exam is missed, a make-up exam will be permitted only if the circumstances of missing the exam satisfy university policies. The first midterm exam will cover Chapters 1-3 and 6-8. The second midterm exam will cover Chapters 9-13. The final exam will cover Chapters 14-15 and 17-18. Thus, the final exam is not comprehensive in the strict sense of the word; however, the subject of biostatistics, like most quantitative subjects, naturally builds on itself, so an understanding of the concepts presented earlier in the course is necessary for good performance on the second midterm and final exam.

Quizzes

Five 10-minute quizzes will be given at the beginning of class periods on February 8, February 22, March 12, March 31, and April 28. Policies on calculators, formula sheets, and make-ups for quizzes are identical to those policies for exams.

Homework

Regular homework assignments are an *essential* component of the course. These assignments typically consist of 6-9 problems and will be due, in lecture, at dates specified on the last page of this syllabus. Unless prior arrangements are made for reasons judged to be acceptable by me, late homework will receive no credit. You are encouraged to work on, and hand in, homework as *pairs* of students. More details on this will be provided in lecture.

Attendance

Attendance at lecture is expected.

Grading

- Midterm Exams, 25% each
- Final Exam, 25%
- Quizzes, 15% (3% each)
- Homework and Attendance, 10%

A plus-minus grading system will be used. The previous four times I've taught this course the grading scale has differed by at most 2% from the following: >97%, A+; 88-97%, A; 85-88%, A-; 82-85%, B+; 77-82%, B; 74-77%, B-; 71-74%, C+; 62-71%, C; 58-62%, C-; 50-58%, D; <50%, F. This usually results in about 2/3 of the class earning A's or B's.

Tutors

A list of independent tutors can be found at
<http://www.stat.uiowa.edu/courses/tutors.html> .

Academic Fraud

All forms of plagiarism and any other activities that result in a student presenting work that is not his or her own are academic fraud. All academic fraud is reported first to the departmental DEO and then to the Associate Dean for Academic Programs and Services. See Academic Fraud at http://www.clas.uiowa.edu/students/academic_handbook/ix.shtml for the complete policy.

Making a Suggestion or Complaint

Students have the right to make suggestions or complaints and should first visit with me, then with the departmental DEO (if necessary). All complaints must be made as soon as possible. For more information, visit Student Complaints at
http://www.clas.uiowa.edu/students/academic_handbook/ix.shtml

Students with Disabilities:

I would like to hear from anyone who has a disability that may require some modification of seating, testing, or other class requirements so that appropriate arrangements can be made. Please see me about this as soon as possible.

Understanding Sexual Harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit this site (<http://www.sexualharassment.uiowa.edu/>) for definitions, assistance, and the full University policy.

Reacting Safely to Severe Weather

The University of Iowa Operations Manual section 16.14 outlines appropriate responses to a tornado (see subsection (i)) or to a similar crisis. If a tornado or other severe weather is indicated by the National Weather Service radar, the Johnson County outdoor weather sirens will sound. If these sirens sound (and it is not the first Monday of the month at 9:00 am when the sirens are tested), members of the class will seek appropriate shelter immediately, continuing class if possible when the event is over.

Student Classroom Behavior

The ability to learn is lessened when students engage in inappropriate classroom behavior, distracting others; such behaviors are a violation of the Code of Student Life. When disruptive activity occurs, a University instructor has the authority to determine classroom seating patterns and to request that a student exit the classroom, laboratory, or other area used for instruction immediately for the remainder of the period. One-day suspensions are reported to appropriate departmental, collegiated, and Student Services personnel (Office of the Vice President for Student Services and Dean of Students).

Homework Assignments

#1: 2.3, 2.7-2.10, 2.13, 2.14, 2.17

#2: 3.6-3.9, 3.15ab, 6.7-6.9

#3: 6.13, 6.14ab, 6.15, 6.17, 6.18

#4: 7.8-7.10, 7.14, 7.15

#5: 7.17-7.19, 8.8, 8.9, 8.13

#6: 9.5, 9.6, 9.8, 9.9cd, 9.11

#7: 10.9-10.11, 10.13

#8: 11.5, 11.6, 11.8, 11.11, 11.12

#9: 12.6-12.8

#10: 13.7-13.10, 13.12

#11: 14.3, 14.5, 14.6, 14.7abcde, 14.10, 14.12

#12: 15.7, 15.8, 15.10, 15.12, 15.17, 15.18

#13: 17.5, 17.8, 18.8, 18.9abcdefg, 18.10abc, 18.11

Selected homework solutions will be posted on the bulletin board in the hallway by 151 SH.

A detailed course schedule follows on the next page.

<i>Date of lecture</i>	<i>Reading assignment</i>	<i>Homework due</i>	<i>Quiz (or exam)</i>
January 23	1, 2.1		
January 25	2.2-2.3.4		
January 28	2.3.5-2.4		
January 30	3.1	#1	
February 1	3.2		
February 4	3.4-3.5, 6.1		
February 6	6.1-6.2	#2	
February 8	6.3-6.4.2		Quiz thru Chap. 3
February 11	6.4.3-6.5		
February 13	6.6-7.1	#3	
February 15	7.2		
February 18	7.3-7.4		
February 20	7.4-7.5	#4	
February 22	8.1-8.2		Quiz thru sec. 7.3
February 25	8.3		
February 27	Catch-up/Review	#5	(Exam on Feb. 28)
February 29	No class		
March 3	9.1-9.2		
March 5	9.3-9.4		
March 7	10.1-10.2	#6	
March 10	10.3-10.4		
March 12	10.5		Quiz thru sec. 10.2
March 14	11.1	#7	
March 24	11.2		
March 26	11.3-12.1.1		
March 28	12.1.2	#8	
March 31	12.2-12.3		Quiz thru Chap. 11
April 2	13.1	#9	
April 4	13.2		
April 7	13.3-13.5		
April 9	Catch-up/Review	#10	(Exam on April 10)
April 11	No class		
April 14	14.2-14.2		
April 16	14.3-14.5		
April 18	14.6-14.7		
April 21	15.1.1	#11	
April 23	15.1.2-15.2		
April 25	15.3, 15.5		
April 28	17.1-17.2		Quiz thru sec. 15.2
April 30	17.3-17.4	#12	
May 2	18.1-18.2.1		
May 5	18.2.2-18.2.3		
May 7	18.2.4-18.3		
May 9	Catch-up/Review	#13	