Title of Course: Elementary Statistics and Inference
STAT:1020 / PSQF:1020 Lecture Section A

Course meeting time and place: 8:30 – 9:20 am M, W, F; 101 BCSB

Department of Statistics and Actuarial Science: https://stat.uiowa.edu/

Course ICON Site: To access the course site, log into Iowa Courses Online (ICON)
https://icon.uiowa.edu/index.shtml using your Hawk ID and password.

Course Home
The College of Liberal Arts and Sciences (CLAS) is the home of this course, and CLAS governs the add and drop deadlines, the "second-grade only" option (SGO), academic misconduct policies, and other undergraduate policies and procedures. Other UI colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook

Instructor:	Professor Ankenmann
Office location:	S316 LC
Office hours:	10 – 11 am, M, W, F, or by appointment
	Students are invited to drop by during these hours to discuss questions about the course material or concerns. Professor Ankenmann is also available by appointment if you are unable to attend his drop-in hours.
E-mail:	robert-ankenmann@uiowa.edu
DEO:	Dr. Saba Ali, S361 LC, 335-5495

TAs	Shiao Liu, 366 SH, shiao-liu@uiowa.edu
	Anh Nguyen, 267 SH, phuonganh-nguyen@uiowa.edu

Discussion Sections					
	A11	7:30 – 8:20 am	T	74 SH	Anh Ngyuen
	A13	9:30 – 10:20 am	T	60 SH	Shiao Liu
	A15	11:00 – 11:50 am	T	118 MH	Shiao Liu
	A12	7:30 – 8:20 am	Th	74 SH	Anh Ngyuen
	A14	9:30 – 10:20 am	Th	15 SH	Shiao Liu
	A16	11:00 – 11:50 am	Th	211 EPB	Shiao Liu

TA Office Hours	Shiao Liu:	T, 10:20 – 11 am, 366 SH; Th, 11:50 am – 12 noon, 366 SH
	Anh Nguyen:	Th, 10:00 – 10:45 am, 267 SH

Description of Course

This course provides an overview of the logic and techniques involved in quantitatively analyzing and interpreting empirical data. Methods for displaying data graphically and for describing characteristics of data will be covered in the first part of the course dealing with descriptive statistics. The second part of the course includes topics in elementary probability theory and sampling, forming a basis for techniques of statistical inference. The problem of inference, attempting to make generalizations that go beyond the data at hand, is the focus of the third part of the course.

Learning Objectives

This is a *General Education* course in *Quantitative or Formal Reasoning*. Courses approved in this area have as their primary purpose the development of the analytical powers of the student as they might be exercised in presentation and evaluation of mathematical or other formal symbolic systems. Students will learn and practice methods of statistical reasoning. Students will also learn to evaluate arguments made in the symbolic system embodied in the course, and will become familiar with its major concepts and ways of formulating questions.

Textbook/Materials

- When students enrolled in the course, they were automatically registered for Pearson's **MyLab & Mastering** website, which includes access to the eText and a variety of other online resources (enrollment in MyLab & Mastering is mandatory for the completion of online homework assignments).

- Access Code: **WSDISE-SUNUP-WOVEN-SPITE-SWASH-JUTES**

- Students have the opportunity to opt out of the course material during the beginning of the course (https://teach.uiowa.edu/icon-direct-opt-out), but their ability to participate fully in the course without these materials may be limited. No charge to the student's U-Bill will be made if the course is dropped during the Opt Out period.

- Students are free to purchase a loose-leaf copy of the textbook (available at the UI bookstore).

The required textbook(s) for this course is:
- Intro Stats, 6th Edition
- E-text ISBN: 9780136806905, 0136806902
- Richard D. De Veaux; Paul F. Velleman; David E. Bock
- Pearson
- 2022

Academic Honesty and Misconduct

All students in CLAS courses are expected to abide by the CLAS Code of Academic Honesty. Undergraduate academic misconduct must be reported by instructors to CLAS according to these procedures. Graduate academic misconduct must be reported to the Graduate College according to Section F of the Graduate College Manual.

Student Complaints
Students with a complaint about a grade or a related matter should first discuss the situation with the instructor and/or the course supervisor (if applicable), and finally with the Director or Chair of the school, department, or program offering the course. Students should contact CLAS Undergraduate Programs for support when the matter is not resolved at the previous level.

Drop Deadline for this Course
You may drop an individual course before the deadline; after this deadline you will need collegiate approval. You can look up the drop deadline for this course here. When you drop a course, a "W" will appear on your transcript. The mark of "W" is a neutral mark that does not affect your GPA. Directions for adding or dropping a course and other registration changes can be found on the Registrar's website. Undergraduate students can find policies on dropping and withdrawing here. Graduate students should adhere to the academic deadlines and policies set by the Graduate College.

Course Requirements
- readings (see **Lecture Schedule** for textbook chapters)

- exercises from textbook (for self study, and for review in discussion sections with the TA); see the **Recommended Textbook Exercises**

- students are expected to attend/observe all lectures and discussion sections

- 11 graded homework assignments; see the **Graded Homework Assignment Schedule** (below) for deadlines

- 3 exams (open book); see the **Exam Schedule** (below) for dates, times, and locations

Course Grades
Final grades are based on the best 10 out of 11 homework assignments (2.5% each), and three exams (25% each).

Grading System and the Use of +/-
Final grades will be awarded based on the following ranges:

A	B	C	D	F
A+ 95-100	B+ 80-84	C+ 65-69	D+ 50-54	F 0-39
A 90-94	B 75-79	C 60-64	D 45-49	
A- 85-89	B- 70-74	C- 55-59	D- 40-44	

- students with an average homework assignment score exceeding 75% (based on the best 10 out of 11 homework assignments) will be eligible for borderline grade consideration for final grades

Calendar of Course Assignments and Exams

Graded	HW Assignment 1	Jan 29, 11:59 pm	Chapters 1, 2.1 – 2.3
Homework	HW Assignment 2	Feb 5, 11:59 pm	Chapters 2.4, 2.5, 3
Assignment	HW Assignment 3	Feb 12, 11:59 pm	Chapters 4, 5.1, 5.2
Schedule	HW Assignment 4	Feb 19, 11:59 pm	Chapters 5.3 – 5.5, 6
	HW Assignment 5	Mar 5, 11:59 pm	Chapters 7, 8.1, 8.3, 8.5
	HW Assignment 6	Mar 19, 11:59 pm	Chapters 10, 11
	HW Assignment 7	Mar 19, 11:59 pm	Chapter 12
	HW Assignment 8	Apr 9, 11:59 pm	Chapters 13, 14
	HW Assignment 9	Apr 23, 11:59 pm	Chapters 15, 16.3
	HW Assignment 10	Apr 30, 11:59 pm	Chapter 17
	HW Assignment 11	May 7, 11:59 pm	Chapter 18

- all homework assignments are due at 11:59 pm on Sunday; late submissions are accepted up until 11:59 pm on Tuesday (that is, two days later) with a 50% penalty on those questions answered after the Sunday deadline; there are no exceptions or extensions to these deadlines for any reason

Date and Time of the Final Exam
The final examination date and time will be announced by the Registrar generally by the fifth week of classes and it will be announced on the course ICON site once it is known. **Do not plan your end of the semester travel plans until the final exam schedule is made public. It is your responsibility to know the date, time, and place of the final exam.** According to Registrar's final exam policy, **students have a maximum of two weeks after the announced final exam schedule** to request a change if an exam conflict exists or if a student has more than two exams in one day (see the policy here).

Exam	Exam 1	Thrs Feb 23, 6:30 – 8:30 pm, 100 PH	Chapters 1 – 6, 8.3 – 8.5
Schedule	Exam 2	Thrs Apr 6, 6:30 – 8:30 pm, 100 PH	Chapters 7, 8.1 – 8.2, 10 – 12
	Exam 3	May 8 – 12 (date/time/location TBD)	Chapters 13 – 15, 17 – 19

- students who have a conflict with either of the first two exams must make arrangements for a makeup with Professor Ankenmann the week before the exam; makeup exams will occur earlier on the day of the exam, or the next day

- absence from an exam must be cleared with Professor Ankenmann on or before the exam date

- any student who is absent from an exam must submit a completed *Absence Explanation Form* to Professor Ankenmann before being allowed to take a make-up (see http://registrar.uiowa.edu/absence-class)

- any unexcused absence from an exam will result in a score of zero with no opportunity for a make-up

- students with accommodations must make alternative arrangements with Professor Ankenmann the week before the exam; exam accommodations will occur earlier on the day of the exam, or the next day

- the Final Exam Schedule is set by the Registrar's Office during the first five weeks of the semester; the date/time/location of Exam 3 will be announced after it has been set by the Registrar's Office

- the Registrar's Office defines/recognizes the following two kinds of exam conflicts: (1) two or more final exams scheduled during the same exam period, (2) more than two final exams scheduled on the same day; these are the only kinds of exam conflicts allowed by Professor Ankenmann

- please note that travel arrangements, including airline flights, do not qualify as exam conflicts; therefore, you should not book any travel during Exam Week (May 8 – 12) until after you know the date and time of Exam 3

- students who have a qualifying exam conflict (as defined above) may request a makeup final examination from the instructor; they must register their intent to take advantage of the makeup exam opportunity with their instructor by April 1; the makeup exam period is Friday, May 12 from 5:30 – 7:30 pm

- students with accommodations must make alternative arrangements with Professor Ankenmann the week before the exam; exam accommodations will occur on the day of the exam, or the next day

Recommended Textbook Exercises

Students are expected to know how to answer all of these exercises, even though they aren't scored/graded. Some of these questions are included in (or similar to) the homework assignments, and some are used as examples in lectures and/or discussion sections.

Chapter 1: 1, 7, 9, 21, 23, 25, 31, 33, 35, 37, 39

Chapter 2: 1, 3, 5, 13, 15, 17, 21, 23, 35, 39, 43, 45, 47, 53, 59, 61, 63, 65, 67, 71, 73, 79, 81

Chapter 3: 1, 3, 5, 9, 11, 15, 19, 23, 27, 29, 31, 35, 37, 41, 43, 49, 51

Chapter 4: 1, 3, 5, 7, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33

Chapter 5: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57

Review (pages 163 – 172): 3, 5, 7, 15, 17, 19, 23, 25, 31, 37

Chapter 6: 3, 5, 7, 11, 13, 15, 19, 25, 27, 29, 31, 33, 35, 37, 39, 45

Chapter 7: 1, 3, 5, 7, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 29, 33, 35, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 67, 69, 75

Review (pages 323 – 334): 1, 3, 7, 9, 11, 15, 17, 21, 29, 31, 33, 43

Chapter 10: 5, 7, 9, 11, 13, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45

Chapter 11: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 31, 47, 57

Review (pages 385 – 390): 1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 23, 25, 27, 35, 39

Chapter 12: 3, 5, 7, 9, 10, 11, 12, 14, 23, 27, 31, 33, 35, 37, 39, 41, 43, 51, 53, 63

Chapter 13: 1, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53

Chapter 14: 5, 9, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37

Chapter 15: 1, 3, 5 (only b and c), 7, 9, 15, 17, 19, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43

Review (pages 567 – 570): 27, 31, 37, 43, 47, 51

Chapter 17: 1, 3, 9, 11, 13, 15, 23, 25, 27, 29, 31, 33, 37, 39, 49, 51, 53, 57, 59, 61, 63, 75, 77

Chapter 18: 1, 9, 13, 23 (only a and b), 25, 27 (only a and b), 29, 31, 33, 39

Chapter 19: 1, 3, 5, 13, 17, 19, 23, 25, 27, 39, 41, 47, 49

Review (pages 724 – 733): 5, 11, 17, 19, 21, 31, 33, 35, 37, 47

ICON Direct Information

- This class will be taught with electronic content. The course material is available in the ICON course site. Students may opt out of this content, but the consequences of doing so may affect their outcomes in this course.

- Students will lose access to any additional content the instructor might add to the eTextbook, such as links to other content; additional supplemental resources; and highlights, annotations, and any study tips the instructor may add to guide your engagement and learning in the course*. **Please consider that if you choose to opt out, you may not be able to earn course points or assignment grades associated with this content.**

- Students risk falling behind in the course if they have not acquired alternate versions of the same materials prior to the first day of the class.

- Faculty are not responsible for providing students with alternative materials or waiving course/class requirements.

College of Liberal Arts and Sciences (CLAS) Course Policies

Attendance and Absences

- lecture and discussion section attendance are not recorded, and do not count directly toward the final grade; however, it is recommended that you attend all lectures and discussion sections in order to be adequately prepared for the exams

- this is a 3-semester-hour course; therefore, students are expected to spend (on average) 6 additional hours of outside work per week (not including discussion sections or exams), for a total of 10 hours per week if lecture and discussion section times are included

University regulations require that students be allowed to make up examinations which have been missed due to illness or other unavoidable circumstances. Students with mandatory religious obligations or UI authorized activities must discuss their absences with Professor Ankenmann as soon as possible. Religious obligations must be communicated within the first three weeks of classes.

[Exam Policies](#)

Communication: UI Email
Students are responsible for all official correspondences sent to their UI email address (uiowa.edu) and must use this address for any communication with instructors or staff in the UI community.

Where to Get Help
Information about tutoring will be available here starting the second week of class: https://stat.uiowa.edu/resources/tutoring

University Policies
[Accommodations for Students with Disabilities](#)

[Basic Needs and Support for Students](#)

[Classroom Expectations](#)

[Exam Make-up Owing to Absence](#)

[Free Speech and Expression](#)

[Mental Health](#)

[Military Service Obligations](#)

[Non-discrimination](#)

[Religious Holy Days](#)

[Sexual Harassment/Misconduct and Supportive Measures](#)

[Sharing of Class Recordings](#)

Elementary Statistics and Inference (Lecture Section A, Spring 2023)
STAT:1020 / PSQF:1020 Course Schedule
Professor Ankenmann

DAY		DATE		TEXTBOOK ASSIGNMENT / CHAPTER (SECTION)
UNIT 1 - EXPLORING DATA & RELATIONSHIPS BETWEEN VARIABLES (CHAPTERS 1 – 6, 8.3 – 8.5)				
1	Jan.	18	W	1.1 – 1.4
2		20	F	2.1
3		23	M	2.2
4		25	W	2.3 – 2.4
5		27	F	2.5
6		30	M	3.1 – 3.2
7	Feb.	1	W	3.2 – 3.4
8		3	F	4.1 – 4.2
9		6	M	5.1 – 5.2
10		8	W	5.3
11		10	F	5.4 – 5.5
12		13	M	6.1 – 6.2
13		15	W	6.2 – 6.3, 8.3 – 8.5
UNIT 2 – LINEAR REGRESSION, GATHERING DATA, & PROBABILITY (CHAPTERS 7, 8.1 – 8.2, 10 – 12)				
14		17	F	7.1 – 7.3
15		20	M	7.3 – 7.4
16		22	W	7.5, 8.1
		23	TH	**EXAM 1 (Chapters 1 – 6, 8.3 – 8.5), 100 PH, 6:30 – 8:30 pm**
17		24	F	7.6 – 7.7, 8.2
18		27	M	10.1 – 10.3
19	Mar.	1	W	10.4 – 10.7
20		3	F	11.1 – 11.3
21		6	M	11.4 – 11.6
22		8	W	12.1 – 12.3 (373 – 380 & 384 – 388)
23		10	F	12.3 (381 – 384)
*	SPRING BREAK (Mar. 13 – 17)			No Classes
24		20	M	12.4 – 12.5 (388 – 393)
25		22	W	12.5
26		24	F	12.5
UNIT 3 – CONFIDENCE INTERVALS & INFERENCE (CHAPTERS 13 – 15, 17 – 19)				
27		27	M	12.6
28		29	W	13.1 – 13.2
29		31	F	13.3
30	Apr.	3	M	13.4 – 13.5
31		5	W	13.6 & 14.1
		6	TH	**EXAM 2 (Chapters 7, 8.1 – 8.5, 10 – 12), 100 PH, 6:30 – 8:30 pm**
32		7	F	13.6 & 14.1
33		10	M	14.2, 14.3, 14.5
34		12	W	15.1 – 15.3
35		14	F	15.1 – 15.3
36		17	M	15.4 – 15.5, 16.3
37		19	W	15.4 – 15.5, 16.3
38		21	F	17.1 – 17.3
39		24	M	17.4 – 17.5
40		26	W	18.1 – 18.2
41		28	F	18.1 – 18.2
42	May	1	M	18.3
43		3	W	19.1
44		5	F	19.4
Exam Week		**May 8 – 12**		**EXAM 3 (Chapters 13 – 15, 17 – 19), location/time TBD**

Please Read FIRST:

Your course materials will be billed directly to your University Account through the option called **ICON DIRECT**. This means you do NOT have to purchase materials outside of this set up and your UBill will be auto charged and the lowest possible price for students.

Enter Your ICON Course:

1) Sign in and enter your ICON course.

2) Select **the MyLab & Mastering** in the Course Navigation, then select any course link on the Pearson page.

Get Access to Your Pearson Course Content:

1) Enter your Pearson account **username** and **password** to **Link Accounts**.
   You have an account if you have ever used a Pearson MyLab & Mastering product, (such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology or MasteringPhysics)
   - If you DON'T have a Pearson account, select **Create** and follow the instructions.
   - Enter **access code**: WSDISE-SUNUP-WOVEN-SPITE-SWASH-JUTES
   - From the **You're Done** page, select **Go to My Courses**.

Note: We recommend you always enter your MyLab Mastering course through ICON.

Get Your Computer Ready

For the best experience, check the system requirements for your product at:
http://www.pearsonmylabandmastering.com/system-requirements/

Need help?

For help with MyLab & Modified Mastering with ICON, go to:
http://help.pearsoncmg.com/mylabmastering/canvas/student/en/index.html

24/7 TECH SUPPORT

https://support.pearson.com/getsupport/s/
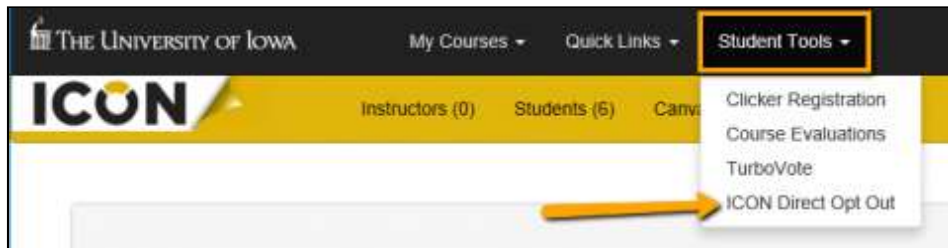
HOME

ICON Direct: Opt Out

IMPORTANT: You will receive an email notification upon successful completion of your opt-out selection. Please retain this email. If you do not receive this email, you have not opted out. Please contact the ITS Help Desk if you have any questions.

Opting out of ICON Direct

In compliance with federal regulations, students enrolled in ICON Direct courses may choose to opt out of the inclusive access program for any class using eText titles. The opt out tool is available in the ICON Dashboard and MyUI. Before opting out, consider these potential consequences:

- Faculty are not responsible for providing you with alternate materials.
- You will lose access to all the features and benefits of the eText.
- You will lose any other eText content such as highlights, annotations, or study tips.
- You will be responsible for legally obtaining alternate versions of all required course materials.
- You risk falling behind in your course.

If you are enrolled in a course using ICON Direct, you can find a link to the **ICON Direct Opt Out** in your ICON Dashboard in the Student Tools menu.
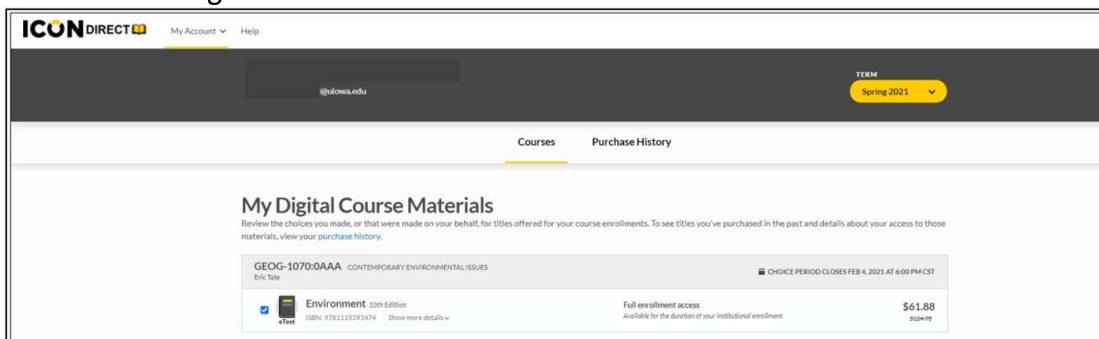
The process for opting out of content may vary. Some items will have a button that links to a page to complete your selection. Others will have a toggle switch for immediate selection on this screen.
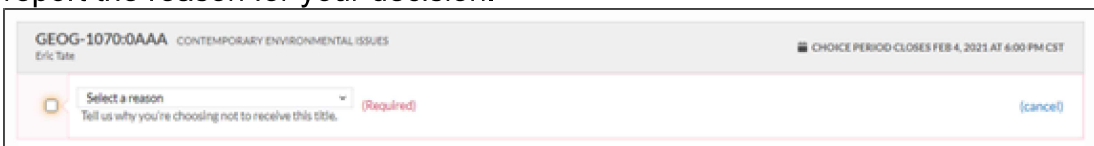

For the items with the "Select Choice" button, read below for further instructions about the Unizin Student Choice process:

1. Log into the Student Choice Tool using your HawkID credentials.

2. Review your courses for a term. You can select an academic term using the drop down menu on the right side of the window.

3. If you do not want to participate in ICON Direct, **uncheck** the items you are declining, and report the reason for your decision.

4. If you make a change to your digital course materials, you will need to review the policy terms and conditions. If you agree to the terms, **place a check next to "I have read and understand the policy"**

5. **Scoll down, click Save** to apply the changes.

Below are the instructions for the toggle switch:

1. Each click of the toggle switch changes your status of receiving course content. Opted in means you will receive the specific item and will be charged, and opted out means you will not receive it and will not be charged.

Important: You will receive an email notification upon successful completion of your opt-out selection. Keep this email for your records.

The email notifications will contain a link to return to Order Tool if you wish to change your choice while the student choice period is open. If you don't receive an email the opt-out was not successful and you should resubmit it or contact the Help Desk at its-helpdesk@uiowa.edu.

Further information about the Unizin Student Choice tool is available at the Unizin Knowledge Base site.

If you have questions regarding ICON Direct, email the ITS Help Desk: its-helpdesk@uiowa.edu.