

INQ 240 B1: Here's to Your Health!
Fall 2021, MWF 12:00 - 1:00

Instructor: Michael Weselcouch

Office: Trex #175

Office Hours: Monday 2:00 - 3:00, Tuesday 11:00 - 12:00, and by appointment.

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Course Description. This course is an introduction to statistical reasoning and basic statistics techniques focusing on the examples and data sets dealing with health related issues. You will learn how to collect, organize and present data and study quantitative measures which will allow you to draw conclusions and make inferences from the data. Some probability will be discussed as a precursor to the “inferential” statistics.

Attendance Policy. Class attendance is a very important aspect of a student's success in this course. The student is expected to attend every class and is accountable for missed content and assignments. If you have a temperature of 100.4 or higher or other COVID symptoms, don't come to class. Call Health Services IMMEDIATELY. Do not come to class or go to any public area on campus. In order for your absence to be excused, you must give Health Services permission to notify me that you have consulted them about COVID symptoms. If Health Services informs you that you should isolate and not attend class for multiple days, inform me so that we can make a plan to keep you current in the course. All absences caused by consultation with Health Services about coronavirus symptoms or isolation ordered by Health Services will be excused but you will need to do the work and graded assignments even if we extend a deadline for you.

Masks. The College has issued a mask mandate for the start of the semester that requires masks to be worn properly in indoor common spaces such as our classroom. While the mandate is in effect, you must wear a mask in this class. Once the mandate has expired, you're welcome to continue to wear your mask if you prefer. If you arrive without a mask, you will not be allowed to stay and may lose credit for attendance or in-class work. The Bookstore sells masks if you need to make a quick purchase. If the mandate is extended, you will be required to continue to wear a mask.

Learning Outcomes. By the end of this course, successful students will be able to:

- use the methodologies of statistics to investigate a topic of interest and make decisions based on the results
- use the methodologies of statistics to design and carry out a simple statistical experiment
- use the methodologies of statistics to critique news stories and journal articles that include statistical information

- articulate the importance and limitations of using data and statistical methods in decision making
- express themselves clearly and effectively in writing using the concepts and language of statistics
- articulate the importance of the methodologies of statistics for understanding health related issues

Course Materials.

- (1) *Textbook: Essential Statistics* Moore
- (2) *Calculator:* A scientific or graphing calculator is recommended but not required.
- (3) *Minitab:* A statistical software package available on most Roanoke College computers. To be explicit, this is not something you need to purchase.
- (4) *Loom:* A screen recording app.
- (5) *YouTube:* I will be posting supplementary videos to my YouTube channel.

Structure and Grading. A grade scale will be determined after final grades are computed, but will be no worse than the scale given below. Attendance and class participation will be considered when determining marginal grades.

Grading Scale

	93-100 A	90-92.99 A-
87-89.99 B+	83-86.99 B	80-82.99 B-
77-79.99 C+	73-76.99 C	70-72.99 C-
67-69.99 D+	63-66.99 D	60-62.99 D-

The final course grade is determined in the following way:

Loom Assignments	15%	Tests	40%
Written Assignments	15%	Final Exam	15%
Final Project	15%		

Loom Assignments. Nearly every weekend, you will have an assignment where you must complete a few problems and explain your answers in a Loom video. These videos will be due on Monday nights at 11:59 PM. You will be graded for both accuracy and the clarity of your explanation. No late videos will be accepted without arrangements approved prior to absence OR without written documentation from a college official.

MCSP Conversations. The MCSP department offers a series of talks designed to appeal to a broad audience. Members of this class are encouraged to attend many of these meetings, however attending at least one session is mandatory. Within one week of attendance you must submit a response to the talk. This will replace your lowest Loom assignment grade.

Written Assignments. There will be three writing assignments on health-related statistical topics. More specific instructions will be given for each piece when it is assigned. See the course schedule for due dates.

Final Project. In small groups you will perform your own statistical study: ask a health-related question, gather and analyze data to answer it, and form conclusions based on your analysis. More specific instructions will be given when the project is assigned.

Tests. There will be four tests this semester; the tests will focus primarily on the statistics content of this course but will emphasize critical thinking and writing! Homework and class notes are absolutely the best sources of review! The tests will not be designed to be cumulative, but as with any course involving mathematics, material from previous tests can be thought of as a prerequisite for future tests.

Test #1: Wednesday, September 22, covering Chapters 1-5

Test #2: Friday, October 15, covering Chapters 7 - 12

Test #3: Wednesday, November 17, covering Chapters 13, 14, 16 - 19

Test #4: Wednesday, December 8, covering Chapters 21 - 23

Final Exam: Friday, December 17 2:00 PM

Test Make-up Policy. Test make-ups are administered in accordance with College policy. Anticipated, excused absences must be reported to the instructor with appropriate certification *well before* the scheduled test date. Legitimate emergency absences must be reported with appropriate documentation within one week of returning to class. No other make-ups will be given.

Corrections to Grading. If you think an error may have been made in the grading of your test, carefully review the answer key posted on Inquire and then contact the instructor **within 1 week of the test's return** with your question. **Do NOT alter the original work.** The entire test may be re-graded and the test grade is *subject to remain the same, increase or decrease* at the discretion of the instructor.

Final Exam. The final exam will be comprehensive. As with the tests, it will emphasize critical thinking and writing. The best way to review for the final is to review your performance on the four tests; focus on material that you did not master the first time around and review the topics that you did master.

Expected Work Policy. This course expects you to spend at least 12 hours of work each week inside and outside of class.

Electronic Devices. You can use only your calculator during class unless we are using Classroom Stats. (This means no cell phones - please set them on silent and leave them in your bag.)

Inquire Policy. Students are required to be knowledgeable of all postings on Inquire. It is each student's responsibility to consistently monitor Inquire for course information. This means every day! Any assignment that requires an Inquire upload will not be accepted in any other form. Also, to receive credit for uploads, the file must be a PDF and readable on the instructor's college computer. It is the student's responsibility to make successful submissions. It is the student's responsibility to resolve technology problems through the college's IT department.

Academic Integrity. I expect all of you to follow the Academic Integrity policies of Roanoke College. All graded work should be your own work! This means that you cannot use any websites or apps that give step-by-step solutions to the problems. If you ever have questions about how these policies apply to our class please contact me. Any violations of our AI policies will automatically be turned over to the Academic Integrity Council.

Accommodations. If you may require an accommodation in this course, please provide me with your documentation within the first 2 weeks of the semester. I must have your documentation at least 48 hours prior to any accommodation made. (Check with the Center for Learning and Teaching for their scheduling guidelines.)

Subject Tutoring. Subject Tutoring, located on the lower level of Fintel Library (Room 5), is open 4 pm – 9 pm, Sunday – Thursday. We are a Level II Internationally Certified Training Center through the College Reading and Learning Association (CRLA). Subject Tutors are friendly, highly-trained Roanoke College students who offer free, one-on-one tutorials in a variety of general education and major courses such as: Business, Economics, Mathematics, INQ 240, Modern Languages, Lab Sciences, INQ 250, and Social Sciences (see all available subjects at www.roanoke.edu/tutoring). Tutoring sessions are available in 30 or 60-minute appointments. Schedule an appointment at www.roanoke.edu/tutoring, or contact us at (540)375-2590 or subject_tutoring@roanoke.edu. We hope to see you soon!

Writing Center. The Writing Center @ Roanoke College offers tutorials focused on writing projects and oral presentations for students working in any field. Writers and presenters at all levels of experience may consult the Writing Center at any point in their process—including brainstorming, drafting, organizing, editing, or polishing presentation skills—to talk with trained peer tutors in informal, one-on-one sessions. Schedule an appointment at www.roanoke.edu/writingcenter, where our staff members and workshops are also posted. Questions? Email writingcenter@roanoke.edu.

AES. Accessible Education Services (AES) is located in the Goode-Pasfield Center for Learning and Teaching in Fintel Library. AES provides reasonable accommodations to students with documented disabilities. To register for services, students must self-identify to AES, complete the registration process, and provide current documentation of a disability along with recommendations from the qualified specialist. To schedule an appointment, call (540)375-2247 or e-mail aes@roanoke.edu. If you have registered with AES in the past and would like to receive academic accommodations for this semester, please contact the AES at your earliest convenience to schedule an appointment and/or obtain your accommodation letter for the current semester.

Tentative Course Schedule. The following schedule is approximate and subject to change except for the test dates. It should give you an idea of the timing of the topics covered and assignments.

Week	Dates	Lecture Material	Assignments
1	9/1, 9/3	Chapter 1	
2	9/6, 9/8, 9/10	Chapter 2, 3	
3	9/13, 9/15, 9/17	Chapter 4, 5	WA 1 (9/13)
4	9/20, 9/22, 9/24	Chapter 7	Test 1 (9/22)
5	9/27, 9/29, 10/1	Chapter 8, 9	
6	10/4, 10/6, 10/8	Chapter 10, 11	WA 2 (10/6)
7	10/11, 10/13, 10/15	Chapter 12	Test 2 (10/15)
8		Fall Break	
9	10/25, 10/27, 10/29	Chapter 13, 14	
10	11/1, 11/3, 11/5	Chapter 16, 17	
11	11/8, 11/10, 11/12	Chapter 18, 19	WA 3 (11/8)
12	11/15, 11/17, 11/19	Chapter 21	Test 3 (11/17)
13	11/22	Chapter 21	FP Data Due (11/21)

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14	11/29, 12/1, 12/3	Chapter 22, 23	
15	12/6, 12/8, 12/10	Review	Test 4 (12/8) FP Due (12/10)
	12/17	2:00 - 5:00	Final Exam