

**SOCIOL 212: Elementary Statistics
Fall 2022 Syllabus**

Professor: Dr. Youngmin Yi
("Dr. Yi" or "Professor Yi," she/her)

Email: youngminyi@umass.edu

Student Hours (Zoom, <https://bit.ly/3CEDIDB>):
Tuesdays, 12:45 pm – 2:45 pm

Teaching Assistant: Matthew Mendoza
("Matt," he/him)

Email: mwmendoza@umass.edu

Student Hours (Thompson Hall, Room 738):
Thursdays, 1:15 pm – 2:45 pm

COURSE DESCRIPTION AND OBJECTIVES

Welcome! This course provides a social scientific introduction to probability and statistics. Our goal is to learn about quantitative (numerical) data and to learn how to use data, probability, and statistics appropriately to study our social world. Together, we will:

- Develop a statistical vocabulary and data literacy to become informed consumers and critical evaluators of numerical information
- Apply statistics and probability to explore and describe the social world numerically
- Develop basic proficiency in statistical analytic software
- Learn to interpret and communicate statistical and numerical information to others

There are no formal prerequisites for this course, although you will need basic algebra (+, -, ÷, ×, √). This course satisfies the General Education Analytic Reasoning (R2) requirement.

SPECIAL NOTE ABOUT LEARNING IN COMMUNITY

Health crises and economic stressors remain widespread and elevated. As such, I ask us all to support our collective learning experience with a prioritization of wellbeing and consideration for others. These may include measures such as connecting with campus resources (tech, health, financial, academic); vaccination; masking with KN95s; and exercising care and discretion about social gatherings; among other best practices for taking care of self and others. If you feel at all unwell, *do not* come to class – contact Professor Yi and/or Matt so we can develop a plan to support your wellbeing and success. I am proud of our community for being one that centers equity, inclusion, and belonging and thank you for your care and conscientiousness in support of that mission.

I am committed to supporting your success in this class. Please invest early and consistently in your membership in this class to build a network of support with classmates and instructors. I commit to being thoughtful and compassionate towards each of you as you navigate your academic endeavors and personal circumstances. In turn, I ask that you exercise the same consideration and compassion towards your classmates, Teaching and Grading Assistants, UMass Amherst staff, and instructors.

COURSE STRUCTURE AND SCHEDULE

In Fall 2022, this is an in-person class. New content will be introduced through assigned material to complete before class. Classes and sections will assume timely completion of this material and will focus on clarification, review, and applications. ***You will need a laptop computer and writing utensil in class.***

Mon.	Tue.	Wed.	Thu.	Fri.
	Class: 11:30 am – 12:20 pm (Tobin 304) Student Hours: 12:45 pm – 2:45 pm (Zoom, https://bit.ly/3CEDIDB)		Class: 11:30 am – 12:30 pm (Tobin 304) Student Hours: 1:15 pm – 2:45 pm (Thompson 738)	Discussion Section <ul style="list-style-type: none"> • Section AB: 9:05 am – 9:55 am (Tobin 520) • Section AA: 12:20 pm – 1:10 pm (Dickinson 216)

COURSE EXPECTATIONS AND GRADING CRITERIA

The course expectations and activities are designed to help us meet our learning objectives.

Class Engagement (15%)

Class engagement activities offer a collaborative approach to our learning, encouraging students to build relationships with the course and instructional team and to participate in the production of an enriching class environment.

(1) Introductory questionnaire (5 points)

This questionnaire will provide me with some critical and helpful information about you.

(2) Class expectations and guidelines quiz (5 points)

This is a graded open-book quiz on class policies, expectations, and guidelines that you have 2 weeks to complete and submit. Over the two-week period for which the quiz is open, you may take it as many times as you need to get a perfect score.

(3) Checkpoints (5 points)

These are intended to encourage students' engagement with the course material and class. Checkpoints will consist of an unknown number of unannounced low-stakes activities to be completed and submitted in class (no make-ups) and will be scattered across class meetings and sections throughout the semester. Grading will be based on the proportion of checkpoints completed over the course of the semester (5 points = 90% or more, 4 points = 80% or more, 3 points = 60% or more, 2 points = 40% or more, 1 point = less than 40%).

Learning Activities (25%)

Learning activities will help you structure your asynchronous learning and allow you to assess your grasp of new concepts in a low-stakes way. These activities will be due on Fridays at 11:59 pm ET.

(1) Bi-weekly reading guides (6 guides, 3 points each)

Reading guides are outlines for engaging key course concepts and terminology in your own words while completing readings and modules and participating in class and discussion section. You are encouraged to update your guides as your understanding of the material improves. By the end of the semester, you will have built your own glossary of statistics and probability. Each reading guide will be graded on a scale of 1-3 based on the degree to which the guide is complete (all definitions attempted) and shows evidence of real engagement with the terms (active use of the reading guide as a note-taking device and concerted effort to put the terms in one's own words).

(2) Bi-weekly comprehension checks (6 checks, 1 point each)

Comprehension checks in the form of Moodle quizzes will allow you to test your grasp of new content. Comprehension checks completed by regular deadlines will receive full credit (no penalty for errors); there are no late submission options for comprehension checks.

Assignments (40%, 6 assignments)

Assignments are an opportunity for you to apply and extend new skills. Assignments will be posted on Fridays and due two weeks later on Fridays on Moodle at 11:59 pm ET. You will have the opportunity to fully revise and resubmit one assignment at the end of the semester for a new grade. Students must submit individual assignments, reflective of their own work. Collaboration is welcome, but keep in mind our course and university policies. If you worked with others, note their name(s) in the header of your submission; failure to do so is a violation of our commitment to academic integrity.

Final Statistical Investigation (20%)

In lieu of a final exam, students will conduct final statistical investigations to apply skills developed in this class. Each student must submit their own investigation; group submissions are not permitted. Details about this project will be provided in class midway through the semester. The project will be due on the last day of finals period, Monday, December 19, at 11:59 pm ET. Late submissions will not be permitted except in extenuating circumstances discussed with Professor Yi well in advance.

Deadlines

Because all materials and deadlines are posted well in advance, students are expected to keep pace with the Detailed Course Schedule. Further, because the content in this class is cumulative, requiring mastery of earlier units to make sense of later topics, staying on track is of the utmost importance: students should make every effort to submit coursework by the *on-track deadlines*. However, life happens. As such, *emergency deadlines* offer automatic 3-day grace periods for reading guides and assignments, no request or explanation needed. All items submitted by the emergency deadlines will be graded for full credit. Items submitted after emergency deadlines will receive 0 points.

Attendance

There is no formal attendance policy for this class, although class engagement and access to important course content and instructions are entirely contingent on your attendance. As adults who have registered for this in-person and synchronous class and university experience, you have committed to the course objectives and are expected to take responsibility for your own learning.

It is not appropriate to ask instructors to summarize missed classes or sections for you. Students who keep up with and make use of instructional time will find the class to be most manageable and enjoyable. Students who are facing changing/extenuating circumstances that impact their ability to participate in this class as designated by the university should contact Professor Yi promptly to discuss these needs and develop a modified plan for success.

Grading

This table describes the grading scheme for this class. Your final grade will be a weighted total of your performance over the course of the semester. You can track your cumulative progress in the Moodle Gradebook. The deadline to elect Pass/Fail grading is Tuesday, November 1; under both letter-based and Pass/Fail grading, students must receive a D or above to pass the course.

Grade	Percent Total	Grade	Percent Total	Grade	Percent Total
A	93% - 100%	C+	77% - 79%	F	59% or below
A -	90% - 92%	C	73% - 76%	INC	Incomplete
B +	87% - 89%	C-	70% - 72%		
B	83% - 86%	D+	67% - 69%		
B-	80% - 82%	D	60% - 66%		

COURSE MATERIALS

We will draw upon a range of different course materials and resources for this course.

Moodle: The class Moodle page will serve as our “home base.” All class materials will be posted to this site. Access it by logging in with your NetID and password here: <https://moodle.umass.edu/>

Class Meetings and Modules: This class is structured around pre-recorded video modules and assigned readings that introduce new topics, with in-person class meetings focusing on clarification, review, application, and tips and tricks. To support all of our continued learning while encouraging prioritization of health and quarantining/isolation, whether as a precaution or for active illness and recovery, I will be recording class meetings. *Warning:* keep in mind that recordings are strictly a tool for extenuating circumstances and are not an effective replacement for regular class engagement.

- **Echo360:** Assigned course modules will be available as Echo360 videos accessed through Moodle. This is also where class recordings will be distributed. All UMass Amherst students have access to Echo360 using their NetID and password.
- **Zoom:** Professor Yi's student hours will take place over Zoom. All UMass Amherst students have free access to Zoom through our Moodle site using their NetID and password.

Course Texts: Our readings for class will draw primarily from our textbook. Additional materials that are assigned will be posted on or linked to the class Moodle page. Unless otherwise indicated, materials listed in the syllabus are required for the attainment of our class objectives.

- **OpenIntro Statistics (OS):** This textbook by David M. Diez, Mine Çetinkaya-Rundel, and Christopher D. Barr is our main text for this course. Assigned readings from this text are listed in the syllabus as (OS). It is available to download from our Moodle page or the text website: <https://www.openintro.org/book/os/>. A physical copy can be purchased via the textbook site or through the eCampus bookstore: <https://umass.ecampus.com/>

Technology: You will need access to a laptop computer that you can bring to class and use on a regular basis. *If this requirement presents a challenge, please contact me and/or the Office of the Dean of Students as early as possible so we can work together to address these needs.*

Software Programs: All software programs that students will need to use for this class are free and publicly available to you as UMass Amherst students. *If your computer does not allow you to install programs, please contact Professor Yi immediately so she can work with you to set up an alternative arrangement. Google Chromebook users, this applies to you.*

- **Microsoft Office (Word, Excel):** All students have free access to Microsoft Office through UMass Amherst. You will need to download and install Microsoft Office, and specifically Word and Excel, or use Microsoft OneDrive to complete and submit all course activities.
- **R and RStudio:** These are free open-source statistical software for data analysis (and more). R is available on the CRAN R Project website and RStudio is available on the RStudio website; you will need both. You should download and install these programs on your own before classes begin, following the step-by-step instructions detailed in the Start-Up Manual.

Calculator: We will be doing some calculations by hand. You might find it useful to have access a calculator for basic algebra. For most calculations, a cell phone or computer calculator will suffice.

COURSE COMMUNICATION

There are a number of tools and resources that we will use to enhance our in-person and independent learning time and to build and foster class community.

Discussion Forum: The class Moodle discussion forum should serve as an organized (but informal) first stop for any questions that you have! Instructors will check this forum regularly to contribute and answer questions; you are very strongly encouraged to do so, as well.

Student Hours: Student hours are dedicated time *for you* to “stop by” to connect and ask questions. Student hours should be your primary resource for “live” support and questions outside of class.

Professor Yi

Zoom: <https://bit.ly/3CEDIDB>
Tuesdays, 12:45 pm – 2:45 pm

Matt

Thompson Hall, Room 738
Thursdays, 1:15 pm – 2:45 pm

To request an appointment outside of student hours, please email Professor Yi or Matt from your @umass.edu email address with a polite and professional message detailing the purpose of the requested appointment and potential dates/times when you are available to meet.

Weekly Announcements: Professor Yi will send weekly announcements. Students are expected to read these messages carefully – they will include reminders, tips and tricks for assignments, and, on occasion, critical corrections and clarification. Announcements will also be posted to the “Weekly Announcements” forum on Moodle. Students are expected to read these messages.

Email: Direct emails to Professor Yi and Matt should be used only after class resources have been referenced or for personal matters. Professor Yi and Matt will generally respond to student emails within 2 business days. Refer to the Learning Guide for guidelines on email communication.

COURSE OUTLINE

The schedule below summarizes the semester’s topical outline. Please see the Detailed Course Schedule for lists of required readings, modules, assignments, due dates, and instructions on preparing for class.

Week 1 (September 6 – September 9): Welcome and Introduction

Week 2 (September 13 – September 16): Nuts and Bolts: Data, Samples, and Populations

Week 3 (September 20 – September 23): Describing Data, Part 1

Week 4 (September 27 – September 30): Describing Data, Part 2

Week 5 (October 4 – October 7): Probabilities

Week 6 (October 11 – October 14): Rest Stop

Week 7 (October 18 – October 21): Foundations of Inference

Week 8 (October 25 – October 28): Point Estimates and Confidence Intervals, Part 1

Week 9 (November 1 – November 4): Point Estimates and Confidence Intervals, Part 2

Week 10 (November 8 – November 11): Testing Hypotheses (modified schedule!)

Week 11 (November 15 – November 18): Describing Relationships

Week 12 (November 22 – November 25): Thanksgiving Break (modified schedule!)

Week 13 (November 29 – December 2): Describing Relationships: Regression Analysis

Week 14 (December 6 – December 9): Statistics in the Social World

Reading and Finals Period (December 13 – December 20)

COURSE POLICIES

Commitment to Inclusion

The university recognizes and values the wide range of voices and perspectives in all spheres of the academic enterprise. The University of Massachusetts Amherst is committed to policies that promote inclusiveness, social justice, and respect for all, regardless of race, color, religion, creed, gender, sexual orientation, age, national or ethnic origin, physical or mental disability, political belief or affiliation, marital status, veteran status, immigration status, gender identity and expression, genetic information, or any other characteristic or status protected by state or federal laws.

We commit to maintaining an environment that supports our and others' participation and pursuit of the class objectives. In service of this commitment, behavior that marginalizes or harasses others, whether persons in this class or outside our class community, will not be tolerated. Resources and support for students facing or witnessing behavior or experiences that violate this commitment may learn about reporting options and how to report these concerns to the Title IX and Equal Opportunity and Access Office here: <https://www.umass.edu/titleix/reporting>.

Commitment to Academic Integrity

We commit to honest representation of our work. Students acknowledge that all assignments may be subject to submission to Turnitin for textual similarity review for the detection of plagiarism.

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent (http://www.umass.edu/dean_students/codeofconduct/acadhonesty).

Student Services, Special Circumstances, and Needs

Reasonable accommodations and support are available to students to support their participation in the face of disabilities, illness, immigration laws, mental health, learning needs, and other considerations. Please contact Professor Yi to discuss any such concerns and needs.

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented learning disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify Professor Yi as soon as possible (within the first two weeks of the semester) so that we may make appropriate arrangements in a timely manner. For more information, consult Disability Services (<http://www.umass.edu/disability>).

Sharing Policy

Transfer, duplication, and sharing of course material outside of our class beyond that which is publicly available on Professor Yi's website is expressly prohibited unless unequivocal written consent has been obtained from the instructors and students involved. This includes, but is not restricted to, screenshots, audio/video recordings, Zoom chats, transcripts, and class documents. Violation of this policy is a violation of the privacy, rights, and safety of our class and will be treated as such.

Support in Response to Harassment, Assault, and Violence in the UMass Amherst Community

As a faculty member, I (Professor Yi) am required to report any sexual assault, sexual harassment, relationship violence, or stalking of which I become aware to the Title IX Coordinator in the Dean of Students Office. This includes any experiences or concerns that you disclose to me. Students can contact the Office of Equal Opportunity & Diversity or the Dean of Students Office directly to make a report, file a complaint, or learn about available resources and accommodations. If you would like support or further guidance in doing so, please know that I am here to support you in that process. Students can find additional information at <http://www.umass.edu/titleix>, the Sexual and Relationship Violence Resource Guide at <https://bit.ly/3Keb2NH>, and the Survivors' Bill of Rights at <https://www.umass.edu/titleix/survivors-bill-of-rights>.

Land Acknowledgment

The University of Massachusetts Amherst acknowledges that it was founded and built on the unceded homelands of the Pocumtuc Nation on the land of the Norrwutuck community.

We begin with gratitude for nearby waters and lands, including the Kwinitekw -- the southern portion of what's now called the Connecticut River. We recognize these lands and waters as important Relations with which we are all interconnected and depend on to sustain life and wellbeing.

The Norrwutuck community was one of many Pocumtuc Indian towns, including the Tribal seat at Pocumtuc (in present day Deerfield), Agawam (Springfield), and Woronoco (Westfield) to name just a few. The Pocumtuc, who had connections with these lands for millennia, are part of a vast expanse of Algonquian relations. Over 400 years of colonization, Pocumtuc Peoples were displaced. Many joined their Algonquian relatives to the east, south, west and north— extant communities of Wampanoag, including Aquinnah, Herring Pond, and Mashpee, Massachusetts; the Nipmuc with a reservation at Grafton/Hassanamisco, Massachusetts; the Narragansett in Kingstown, Rhode Island; Schaghticoke, Mohegan and Pequot Peoples in Connecticut; the Abenaki and other Nations of the Wabanaki Confederacy extending northward into Canada; and the Stockbridge Munsee Mohican of New York and Massachusetts, who were removed to Wisconsin in the 19th century. Over hundreds of years of removal, members of Southern New England Tribes would make the journey home to tend important places and renew their connections to their ancestral lands. Such care and connection to land and waters continues to the present day.

Today, Indigenous Nations in southern New England continue to employ diverse strategies to resist ongoing colonization, genocide, and erasure begun by the English, French, Dutch, Portuguese and other European Nations, and that continued when Tribal homelands became part of the United States. Native Americans from Tribal Nations across the U.S. and Indigenous peoples from around the world also travel into these Pocumtuc homelands to live and work. This land has always been and always will be, Native Land.

We also acknowledge that the University of Massachusetts Amherst is a Land Grant University. As part of the Morrill Land Grant Act of 1862, Tribal lands from 82 Native Nations west of the Mississippi were sold to provide the resources to found and build this university.

This Land Acknowledgement is the first step in the university's commitment to practice intellectual humility whilst working with Tribal Nations toward a better shared future on Turtle Island. We aim to foster understanding, deep respect, and honor for sovereign Tribal Nations; to develop relationships of reciprocity; and to be inclusive of Native perspectives and thriving Native Nations far into the future. Members of Massachusetts-based Tribal Nations who are kin to the historic Pocumtuc contributed their insights in composing this acknowledgement -- namely Tribal representatives from Mashpee, Aquinnah, and Stockbridge Munsee. As an active first step toward decolonization, we encourage you to learn more about the Indigenous peoples on whose homelands UMass Amherst now resides on and the Indigenous homelands on which you live and work.

ADDITIONAL CAMPUS RESOURCES

Here are some links to other UMass Amherst resources available to support your learning and wellbeing.

Anonymous Witness Form

<https://www.umass.edu/umpd/anonymous-witness-form>

Assistive Technologies Center

<http://www.oit.umass.edu/atc>

Bias Reporting (Non-Emergency)

<https://www.umass.edu/diversity/reporting-options>

*For emergencies, please call 911 or (413) 545-3111

Center for Counseling and Psychological Health (Crisis: 877-831-7421)

<https://www.umass.edu/counseling/>

Center for Multicultural Advancement & Student Success

<https://www.umass.edu/multiculturalaffairs>

COVID-19 Dashboard, Policies, and Resources

<https://www.umass.edu/coronavirus/>

Disability Services

<https://www.umass.edu/disability/>

English as a Second Language

<https://www.umass.edu/esl/>

International Programs Office

<https://www.umass.edu/jpo/>

Learning Resource Center

<https://www.umass.edu/lrc/>

Office of Equal Opportunity & Diversity (413-545-3464)

<https://www.umass.edu/eod/>

Ombuds Office

<https://www.umass.edu/ombuds>

Sexual Assault Services (Hotline: 413-545-0800 or 888-337-0800)

<https://bit.ly/2XWGdXe>

University Health Services (413-577-5000, Triage Advice Nurse 413-577-5229)

<https://www.umass.edu/uhs>

Veteran Services Office

<https://www.umass.edu/veterans/>

Writing Center

<https://www.umass.edu/writingcenter>