MATH F113X Numbers and Society
Summer 2021 Online Course Syllabus (3cr)

Instructor Information:

Name: Dr. Latrice Bowman **Email:** lnbowman@alaska.edu

Office: Chapman 210B

Online office hours: Zoom (work hours are 8am-6pm Monday-Friday)

Contact: email is preferred (907-474-5427)

Appointments: To make an appointment to meet with your instructor https://calendly.com/lnbowman (*This link is also in Blackboard)*

Course Information

This is a 3 credit online synchronous course. The course is set up to have ZOOM meetings throughout the semester and the class will meet MWF 11a-12p You should expect to work on this course a minimum of 3 additional hours per day three days a week to go through the material, practice and homework. Some students may need to spend more time than this to go through all of the materials and fully understand the concepts.

Minimally, this will consists of up to

- 3 hours per week taking notes on the reading and examples
- 3 hours per week completing the MyMathLab Lessons
- 3 hours per week completing the written homework

In addition to this you should may need additional time to study for exams or review work if you are having difficulty on a section.

Course Description:

This course provides an introduction to how mathematics can be used in various aspects of life. We will look at voting methods, growth, finance, probability, and statistics. **Prerequisites:** Placement.

Course Materials:

Excursions in Modern Mathematics by Tannenbaum; ISBN-13:9780134468372 (the actual text is optional as you will have access to tutorials through the videos and MyMathLab access).

MyMathLab Access- You will be doing a significant portion of your homework online. To do this you must have a MyMathLab access code. If you purchase your textbook from the UAF bookstore this code will come packaged with your text. If not, you can purchase one through *www.mymathlab.com*. If you have not yet purchased a code, don't fret! The first 15 days of the course you will have temporary access to MyMathLab so that you can work on your assignments and not fall behind. To access MyMathLab, you can use any of the links in blackboard.

Gradescope Access- This access will be set up once you are registered in the course. You can access Gradescope through any of the links in blackboard or by going to gradescope.com and logging in with your school credentials.

Technological Requirements

As this is an online course, you are expected to have access to the internet and some more than basic computer literacy. Students will be expected to be able to navigate Blackboard, use links, log into sites and be able to navigate those sites. Students will be expected to print assignments. They will be expected to scan or take pictures of assignments and turn them into multi-page PDF files. If you do not already have a digital file storage or app to convert files I would recommend having a Dropbox account (also if students have the app, you can use your phone to create multi-page PDFs of your assignments). You can use the following link to connect for free https://db.tt/Lu39TA52). Students will be expected to upload work and complete many math assignments on the computer. Students will be expected to use ZOOM for video conferencing (so they should also have a working mic and speakers). If you are having difficulty with the technological requirements you should notify your instructor immediately and contact the advisor at eCampus to find additional resources to help you.

Calculator Policy

Students will be allowed the use of a non-graphing calculator on homework and midterms. Any basic calculator that does exponentials and logarithms will be suitable for this course.

Student Learning Outcomes:

- Acquire and apply a basic understanding of voting methods and their uses
- Be able to use both the Banzhaf power and Shapely Shubik power to determine power distribution of voting members of weighted groups.
- Be able to differentiate between different types of population growth
- Apply financial mathematics to applicable life situations
- Set up and solve applied problems
- Acquire and apply a basic understanding of probability and statistics
- Use normal distributions to solve problem
- Students will be able to communicate mathematics effectively.
- Students will examine and explain the use of mathematics in a real-world application applicable to them.

This course is listed as a General Education Math Course as such you will be expected to meet the general learning outcomes 1 and 2.

1. Build knowledge of human institutions, sociocultural processes, and the physical and natural works through the study of mathematics. Competence will be demonstrated for the foundational information in each subject area, its context and significance, and the methods used in advancing each.
2. Develop intellectual and practical skills across the curriculum, including inquiry and analysis, critical and creative thinking, problem solving, written and oral communication, information literacy, technological competence, and collaborative learning. Proficiency will be demonstrated across the curriculum through critical analysis of proffered information, well-reasoned solutions to problems or inferences drawn from evidence, effective written and oral communication, and satisfactory outcomes of group projects.

Course Evaluation Methods:

Students are expected to actively participate in this course by doing assignments, asking questions and attending office hours (as needed). Students are expected to log into Blackboard regularly, complete the MyMathLab lessons each of these days, complete written assignments weekly, ask questions and communicate with classmates and the instructor. Grades will be updated each Friday in Blackboard; students will be emailed about low grades. Any student who has two consecutive weekly averages below 50% will be notified to get additional help and if progress is not made may be withdrawn from the course. Your grade in this course will be based on the following components.

Participation

Your participation grade is based Zoom session attendance, the completion of the course introduction assignments, completing concept quizzes, and communicating with the instructor. Every two weeks you will receive information about your course progress. If necessary you may be asked to schedule a meeting with your instructor to talk about your progress. This component makes up 10% of your overall grade.

The course introduction assignments are:

1) Completing the Homework Introduction Assignment in Week 1

2) Completing the Quiz Introduction Assignment in Week 1

3) Making and attending a 15-minute appointment with the instructor in the first two weeks of class; the instructor appointments need to be scheduled and completed between Monday May 17 and Friday May 28. Students who start the class late will be given 72 hours from their registration date to complete past due assignments. Any appointments completed outside of these dates will not receive credit towards this assignment. Do not wait until the last minute to schedule these; there are more than enough appointment slots for all students between the given dates and additional time slots, for a grade, will not be added.

4) Making and attending a 30 minute online tutoring appointment between the first and second assessment. The tutoring appointments need to be completed between Monday May 24 and Friday June 4. Any appointments completed outside of these dates will not receive credit towards this assignment. Do not wait until the last minute to schedule these; there are more than enough appointment slots for all students between the given dates and additional time slots, for a grade, will not be added.

MyMathLab Lessons

Each lesson in this course will consist of reading, watching videos, practicing the concepts and then being assessed on the material. In each lesson of this course you will be asked to complete a lesson assignment in MyMathLab. Each of these lessons need to be completed by a certain date, but these can be started at any time. You will have multiple attempts at the problems. If you have not completed the lesson assignment by the due date you can continue to work on this until the day of the exam covering this material, HOWEVER, any problem worked on after the due date will receive a 1 percent per day deduction. While working through the lessons it would benefit you to take notes and keep these organized. This will help you in reviewing material and in preparing for the exams. As you work through the lessons, ask questions. If you do not understand something, ask. If you are not sure that you are

going in the right direction, ask. There are many resources available to help you in understanding the material. MyMathLab lessons make up 20% of your overall grade.

Worksheets

Every week you will have 1 written worksheet to complete. These worksheets will cover the material from the prior lessons. The worksheets are the opportunity to review the material from the lessons, synthesize concepts, and to improve your notation and mathematical writing. Completed worksheets need to be submitted in Gradescope. Students will receive their graded assignments to review and see where any errors or misconceptions were made. These worksheets will be graded both on content as well as notation and mathematical writing. One of the student learning outcomes for this course is for students to show they understand mathematical notation, can write out clear mathematical solutions, and communicate mathematics concisely. This is equivalent to being able to write essays of a certain length with correct grammar and punctuation. Worksheets should be completed only after reviewing the section content and working through enough problems to ensure that you have a good understanding of the concepts. If you are not understanding the material then you need to ask questions and seek help (see the section labeled Additional resources). Math is inherently comprehensive. If you don't understand a concept, do not try skip over it as you will only make later lessons more difficult to complete. If you fall behind in MyMathLab it is your responsibility to get help on the material so that you can complete the worksheets. **Late worksheets will not be accepted. Worksheets not submitted in Gradescope will not be accepted.**

Worksheet Guidelines. Your grade on the worksheet will be based not only on the answer to the problems but also on the following criteria:

- Assignments are submitted in Gradescope following the assignment template.
- Submissions are clear (work is not blurry or too light to be read); the pages are in the correct order and oriented correctly; there are not extra pages or pages cut off.
- Your name and id number is on the actual work being submitted.
- Work is neat; it is presented in a way that can be easily read (no lines through work or scratched out places, no notes or comments in margins). You should be submitting a polished, final copy of your work.
- Solutions are written as mathematical sentences or paragraphs- this means that the work is not only mathematically logical but the notation and progression of steps is clear and mathematically concise.
- Each problem should have a beginning (what is the problem asking for or what are you trying to solve), a middle (your supporting steps if you want partial credit) and an end (some statement of the solution). There should be no run-on sentences (no strings of equal signs or arrows).
- Work should be concise with only necessary steps vertically laid out including enough steps to show the thought process throughout the solution. This means that you are very likely going to have to write out problems on separate paper first then transfer it to the final copy.
- Solutions are completely worked out meaning there is supporting work not just an answer.

Your grade on these worksheets is based on material comprehension, work shown with correct mathematical structure, and the correct submission of a neat, polished copy of your work. Points will be deducted for failing to meet any of the above conditions. Worksheets make up 30% of your overall grade.

Quizzes

For each module you will be given 2 timed online assessments. Theses assessments will test your basic understanding of the material in the module. These quizzes are to be done without notes, text or other persons. The quizzes will be available for a few days but you will have one attempt to complete these. You should expect to have paper and pencil handy as well as a scanner or phone to upload work as needed. The quizzes will make up 20% of your overall grade.

Project

For this course you will be asked to do a project exploring an application of mathematics to a real-world problem. The project consists of a few components: You will need to write a 8-10 page paper (introduction, main body, conclusion, and references) that describes the problem, describes how the mathematics is used and explains how the mathematics is used to solve the problem. In addition to the paper you will be asked to record a 5-10 minute presentation that will summarize the paper.

Date	Project item	What is due
Friday May 28	Topic	Complete topic form
Friday June 11	Paper Outline	Outline of paper with references
Monday June 28	Introduction	1-2 page introduction
Monday July 19	Draft of paper	Complete paper with references
Friday August 6 by NOON	Paper and Presentation	8-10 page paper and 5-10 minute presentation

The project will make up 20% of your overall grade.

Grade Scale

Grades will be based on the following percentages:

97-100% A+	87-89% B+	70-79% C
94-96% A	84-86% B	60-69% D
90-93% A-	80-83% B-	below 60% F

Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy: “The letter “I” (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I” grade.” Students asking for an “I” grade must provide documentation of circumstances beyond their control that prevented them from completing the course.

Grading Rubric

Assessment of the following items will be used in the given percentages to determine student grades.

- MyMathLab Lessons 20% of grade
- Worksheets 30% of grade
- Participation 10% of grade
- Quizzes 20% of grade
- Project 20% of grade

Faculty Initiated Withdrawal triggered by Inadequate Student Participation

The instructor may withdraw students who stop participating in the course, and notifications will go out through UA email. Here are some examples of inadequate student participation:

- Students not completing or not turning in **two** written homework assignments
- Students not completing **four** consecutive MyMathLab lessons
- Students missing **two** quizzes
- Students not completing concept checks
- Students having two consecutive bi-weekly grade check with grades below 50%

Extra Credit

There are minimal opportunities for extra credit in this course as all of the requirements are laid out on the first day. The one way to earn extra credit is to complete the Study Plan in MyMathLab. Students will have multiple opportunities to complete this. However, students will only receive extra credit if they have completed all of the MyMathLab lessons within that chapter.

Academic Integrity

As described by UAF, scholastic dishonesty constitutes a violation of the university rules and regulations and is punishable according to the procedures outlined by UAF. Scholastic dishonesty includes, but is not limited to, cheating (or using materials that are not allowed) on any assignment, plagiarism, and collusion. Cheating includes providing answers to or taking answers from another student or source. Plagiarism includes the use of another author's words or arguments without attribution. Collusion includes unauthorized collaboration with another person in preparing written work for the fulfillment of any course requirement. Scholastic dishonesty is punishable by a zero on the assignment for the first offense and a second offense removal from the course with a grade of "F." For more information go to The Student Code of Conduct

Students should keep up-to-date on the university's policies, practices, and mandates related to COVID-19 by regularly checking this website:
https://sites.google.com/alaska.edu/coronavirus/uaf/uaf-students?authuser=0

Further, students are expected to adhere to the university's policies, practices, and mandates and are subject to disciplinary actions if they do not comply.

Correspondence with Instructor:

Students who email the instructor with a question should expect a response within 48 hours (on Friday evenings and weekends you should expect a response on the following Monday). **Emails should be from a UA email and should include the students first and last name, which course they are in, and a clearly stated question**. Emails without this minimal information will not receive responses. Emails should maintain a professional manner; emails containing inappropriate material or language will be ignored and in extreme cases will be sent to the Center for Student Rights and Responsibilities for further action.

Your instructor will send out regular grade checks. It is your responsibility to verify your grade and ask if there are questions. These grade checks are also a time for you to look at your study habits and see what may need to be done to improve your grade.

Additional Support

I am here to help you succeed, however if you do not ask questions and do not seek assistance you will not do well in this course. Students can contact me through email or by scheduling an appointment at https://calendly.com/lnbowman

DMS Online Tutoring:

Free tutoring is available Monday - Saturday! This service is available to any UAF student registered in a MATH or STAT course. Tutoring is accessible through Zoom. Appointments can be made for 30 minutes or an hour and can be scheduled up to two weeks in advance. To schedule an appointment students can sign up for an appointment at https://fairbanks.go-redrock.com. If you have issues with or questions about tutoring, please contact uafmathstatlab@gmail.com

SSS (Student Support Services)

SSS provides one-on-one tutoring to students who satisfy the requirements of the program. In addition to math tutoring SSS provides, advising, all core subject tutoring, laptop rentals and some other services.

Office of Disability Services:

This office implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. I will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities. Please provide current accommodation paperwork to me as soon as you receive it. Without the letter, no accommodations will be made.

For more information and resources, please see the Academic Advising Resource List

UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination (Title IX). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please visit Students Rights and Responsibilities.