Syllabus for MATH 120E 003 - Intro to College Mathematics

Course Title AND FORMAT

MATH 120E/20 Intro to College Mathematics/Learning Support for MATH 120E, Section 003

In-Person, Dawson 108

MoWe 2:00PM - 3:20PM, Fr 2:00PM - 3:50PM

Course Description

Topics that you will learn in this course (MATH 120) include algebra, geometry for measurement, consumer mathematics, and probability and statistics. Emphasis will be placed on problem solving and applications. This course satisfies the Mathematics Core Curriculum.

MATH 120E includes all content from MATH 120 stated above as well as algebraic skills including: graphing, solving equations, order of operations, polynomials, exponents, and rational equations. MATH 120E requires concurrent enrollment in MATH 20.

Instructor's Name and Contact Information

Sungju Moon, PhD

Primary Contact: Use the Inbox tool within Canvas
Office Location: Dawson 223
Phone: (702) 992-2725

Email: sungju.moon@nevadastate.edu

Instructors use the Canvas Inbox and announcements to communicate about course-specific topics. All other official University communication is conducted using Nevada State University-issued email addresses (e.g., @students.nevadastate.edu) in order to comply with the Family Educational Rights and Privacy Act (FERPA). If you need assistance accessing your NS email account, contact the NS Support Center at (702) 992-2400, menu option 3, or online at NS Support Center Links to an external site.. For more about this, see the Student Responsibilities page.

Instructor's Office Hours (Student Hours)

MoWeFr 4:00-4:50pm or whenever my office door is open

Online meetings by appointment

Email and Classroom Response Time

You can generally expect a response to emails within 24-48 hours (or slightly longer over weekends

or holidays). Feedback for completed discussions, quizzes, and assignments depends on the length and complexity of the activity and could take up to 10 days. For questions on the status of a completed assignment, discussion, or test please contact me.

Required Text(s)

1. Foundations for Success by Aaron Wong (click link to download)↓ Download Foundations for Success by Aaron Wong (click link to download)
2. College Mathematics 1st Edition (click link to download)↓ Download College Mathematics 1st Edition (click link to download)
3. My Open Math Software (This will be administered in your weekly Modules)

Required Supplementary Material

1. Students will need access to a computer to watch pre-class assignment videos and other instructional materials outside of class.
2. Students will need a computing device such as scientific calculator. Student may use the desmos.com scientific calculator on their phone for daily class assignments, but not for exams. Please notify your instructor if you do not have a scientific calculator.

LEARNING OUTCOMES

You can find the full list of learning outcomes here.↓ Download You can find the full list of learning outcomes here.

After finishing this course, you will be able to:

- Present work in a manner appropriate to college level mathematics
- Algebra
  - Identify and evaluate functions, obtain tables with function values using function notation, and interpret the output in the context of a word problem.
  - Know how to solve equations graphically.
  - Know how to solve systems of linear equations
  - Know how to find the "best-fit" line and correlation coefficient
- Consumer Mathematics
  - Be able to explain the related notions of percent, including calculating discounts and taxes.
  - Understand the difference between simple and compound interest, and perform calculations involving both.
  - Understand the risks and benefits of credit and how computations involving credit are carried out.
  - Be able to navigate calculations related to mortgages.
- Probability
  - Use a probability tree to display the possible outcomes of an experiment and to compute the probability of events.
  - Use complements to find the probability of an event.
  - Perform calculations involving dependent probabilities and independent probabilities.
  - Perform calculations involving conditional probabilities and interpret the results.
  - Calculate and interpret the expected value of a probabilistic game from the perspective

of both player and house.
- Statistics
  - Calculate and interpret the three measures of central tendency both from raw data and a frequency distribution.
  - Interpret standard deviation as a measure of relative spread about the mean and in particular explain the 68-95-99.7 rule.
  - Compute the standard deviation of a small data set and find the associated z-score for a data point. Interpret this z-score in the context of a problem.

Class Schedule

Please see the class schedule document [download].

Assignment Description and Due Dates

Pre-Class Assignment (5%):

In preparation for class each day you will watch the designated lecture videos and answer a series of questions on concepts that were covered in them. These pre-class assignments will be submitted online (a scan or photograph, converted to PDF) before class each day. These are graded on a good-faith effort and timeliness of your submission. Turning in a blank or a nearly-blank pre-class assignment will not grant you a completion grade.

Bring your pre-class work to class even though you have already turned it in online! We will go over these problems in the beginning of class when necessary. You are encouraged to ask questions about and complete any problems you have trouble with during or after class.

In-Class Assignments/Groupwork (7%):

A large portion of each class will be devoted to completing problems. Some days and topics will require more instruction than others. These assignments are due at the end of each day (online submission: scan or photograph, converted to a PDF). Even though you will be working in groups in class, each person needs to turn in their own assignment. These assignments are graded based on a good-faith effort (1 point), completeness (1 point), correctness (2 points), and the quality of exposition (1 point). We will adopt mastery-based grading for these assignments on a 5 point scale.

Working in groups---Each group will consist of 3-4 people and groups will be re-assigned after each exam. Dawson 108 has multiple whiteboards on all four sides. Your group will take over one of the whiteboards in the classroom. You will be instructed to work on a specific problem at a time. *The main point of groupwork is to work on the same problem together at the same time*. There are two practices in particular that you are asked to avoid: (1) do not distribute the problems among the group members and pool together at the end (i.e., do not "divide and conquer"). (2) even if you are ahead of others, do not move onto another problem unless you have convinced everyone in your group to move on and earned a ★. Proper groupwork will be rewarded with ★s.

How to earn a ★---Once your group has reached a consensus on a working solution to a problem, designate one person to compile and present the solution in front of the whole group. If everyone in your group is in agreement, pick another person from your group as the presenter (the presenter cannot be the same person as the compiler) will summon the instructor and present the group's solution to the instructor. If the solution is acceptable, your group will receive a ★. If the solution is

not acceptable, you will get to try again next time the instructor comes around until time runs out for the problem. It may be helpful to designate roles when you start working on a problem. For example, one person can be the "compiler", another can be the "presenter", and the third person can double as the "secretary" (keeping track of the ★ records on the *self-checklist*) and a "spy" who will sneak into other groups to see what their solutions look like. These roles will need to be rotated for the next problem to earn another ★.

We go over some of the problems together---Occasionally, the instructor will ask for everyone's attention and go over the problem you have been working on together. We will use "hand raising" to signal this break. If your group has not earned a ★ by this point from that particular problem, your group will no longer be eligible for earning a ★ from the problem as it is time to move on to the next problem.

How to use ★s---At the end of each session, I will collect the self-checklists (one per group), which will contain the information about how many ★s your group has earned. When the groups are restructured after each exam, your group ★s will be transferred to your *personal star wallet*. Your personal ★s can then be used for various purposes to your advantage (exactly how they are to be used will be decided together when the time comes).

Exit Tickets---Before you leave each session, you will be asked to fill out an index card with 1 thing you have learned from the day's activities. The "Exit Tickets" will also function as a direct line of communication; use this space to ask questions or discuss any concerns you have regarding this class. They are anonymous by default, but you can write down your name if you want a personalized response from me.

Quizzes (6%)

You will have a total of 6 quizzes throughout the semester (see schedule). The format of the quizzes will be announced in class. Quizzes will be graded based on correctness.

Online Homework Assignments - MyOpenMath (14%):

Homework assignments are assigned for each day's lecture material. Homework can be accessed by clicking the links in your Modules. Homework assignments will be due at the beginning of the following class period. Homework will be auto-graded by the MyOpenMath system. You will have unlimited tries to get the correct solution. After 3 tries you will be given a new problem.

Mini Projects (12%):

Throughout the semester there will be a total of 3 mini projects. Each of these assignments will require you to do some calculations, conduct research, and then write a written report of your findings. These assignments will be graded on the accuracy of calculations, quality and depth of the research done as well as your ability to convey your thoughts in a manner appropriate to a college level mathematics course. The assignments are due according to the listed dates on the schedule. You will be submitting them directly through Canvas as a file upload.

You are encouraged to work together with your classmates (with limitations - i.e., do not divide and conquer), but each person must turn in their own submissions. You are not allowed to work with those who are not currently taking this class (this includes family members, tutors, or fellow students in different sections).

Exams (11% each, 44% in total):

There will be four exams during the semester that are each worth 11% of your total grade. These exams will cover the material from lecture (algebra, probability and statistics), and will be similar to the group work assignments and homework problems. The format of your exams will be announced in class.

Final Project (12%):

The last two weeks of the semester will be dedicated to a final project. Details about these final projects will be discussed in more detail when it is assigned. Final projects will be a group assignment.

Exam Description and Due Dates

For each MATH 120 exam, you will be allow to use a scientific calculator. There will be four exams worth 25 points each.

Exam 1: The Fundamentals (MATH 120E)

Exam 2: Algebra (including Geometry)

Exam 3: Probability

Exam 4: Statistics

ASSIGNMENT AND EXAM LATE POLICY

When students miss work for medical and/or personal reasons, they should access the Student Absence Notification System Links to an external site..

Pre-Class Assignments: There are no make-ups for missed pre-class assignments, but your two lowest grades will be dropped from your final grade.

Online Homework (MyOpenMath): You are allowed 15 late passes for your homework. Each late pass is worth a 48 hour extension. For example, if you need two extra days to work on your assignment beyond the due date, that is worth 1 late pass. If you need 4 days, that is 48*2=96 hours, which is worth 2 late passes.

In-Class Assignments/Groupwork: There are no make-ups for missed in-class assignments, but your two lowest grades will be dropped from your final grade. Resubmissions of these assignments will be accepted on the condition that (1) the assignment was turned in on time and (2) the initial grade on the assignment was 50% or higher. Resubmitted assignments will be "live-graded", which means that you will initiate the resubmission process by presenting your reworked solutions accompanied by verbal explanations. You will receive instant feedback from the instructor. If your reworked solution is acceptable, you will earn back full credit on that problem; otherwise, you will be asked to return at a later time with a re-reworked solution. You may end up accumulating some ★s over the course of the semester. Resubmission will cost you 1 personal ★ per problem. Resubmissions must be initiated within 1 week of the return of the graded assignment.

Projects: The are no make-ups for missed projects. The project deadlines will be strictly enforced.

Exams: There are no make-ups for missed exams unless there is written documentation of reason for missing the exam from the student absence notification system. In these situations, contact must be made prior to the make-up exam, and make-ups must be completed no more than 1 week after the exam is given.

Grading Criteria

The course is not curved, and students will be assigned the grade they have earned based on their total percentage they accrue by the end of the semester. In addition, you cannot receive a passing grade for the course without completing all major assessments.

Your grade for this course is based on a weighted percentage.

Evaluation Criteria	**Percent of Final Grade**
Pre-Class Assignments	5%
GW Assignments	7%
Homework	14%
Quizzes	6%
Mini-Projects	12%
Test 1	11%
Test 2	11%
Test 3	11%
Test 4	11%
Final Project	12%
Total	**100%**

Grading Scale (Letter Grade and Point Range)

A 93% or higher

A- 90%-92.99%

B+ 87%-89.99%

B 83%-86.99%

B- 80%-82.99%

C+ 77%-79.99%

C 73%-76.99%

C- 70%-72.99%

D+ 67%-69.99%

D 63%-66.99%

D- 60%-62.99%

F less than 60%

Accessing Grades and instructor feedback

To access your grades and find all of the instructor's feedback, click on Grades in the course navigation menu. Scroll through the list until you find the new graded assignment (indicated by the blue dot to the left of the assignment name). Then click on the assignment name. You will see your grade. Below it you can click on Show Rubric to see the marked up rubric. Click on the paper title if you want to download the original document. (The instructor's marks or comments will not appear on the downloaded document.) Click on the box to the right of the paper title to see the Turnitin report. Click on View Feedback to see the paper marked up with the instructor's comments/ corrections in DocViewer. The instructor's feedback is on the right. Accessing Grades will take you step-by-step through how to find all instructor feedback and see the marked-up paper and rubric.

Student responsibilities

Students are responsible for reading, understanding, and abiding by the policies listed on the Student Responsibilities page and LASB-specific policies, including, but not limited to:

- Americans with Disabilities Act (ADA) Accommodations
- Student Email Policy
- Diversity and Inclusion Statement
- Appropriate Online and Video-Conferencing Behavior
- Video- or Audio-Recording Lectures
- Withdrawing from a Course
- Academic Resources
- Student Absence Notification
- Enrollment Cancelation for Non-Attendance Links to an external site.
- Technical Support and Minimum Technical Requirements
- Military and Veteran Students
- LASB Academic Conduct Policy Links to an external site.

Plagiarism, Cheating, and Copyright infringement

Plagiarism can involve directly quoting, summarizing, or paraphrasing the work of others without specifically citing sources, or handing in work that is not your own. For more on this see the Copyright, Plagiarism, and Citing Sources page.

Cheating can involve deception about your own work or about the work of someone else, and can include unauthorized giving or receiving of information in exams or other exercises or assessments. The use of books, notes, mobile devices, or other reference materials and/or collaboration with other students is strictly prohibited on all quizzes and exams unless specific permissions have been given by the professor. Violating this rule is considered cheating. All assignments, quizzes, and exams, for both in-person and online classes, are to be completed by each student individually, unless otherwise documented by the instructor.

Copyright infringement includes sharing or posting course materials on external websites or other locations; NS instructors' course materials are their intellectual property and are protected under copyright.

Detailed explanations and examples of plagiarism, cheating, and other forms of academic misconduct can be found in the **LASB Academic Conduct Policy** Links to an external site. and in the **Academic Standards Links to an external site.** section of the NS Student Code of Conduct. You are responsible for reading, understanding, and abiding by these policies.

The grade of 0 or F may be assigned for any assignment, quiz, or exam in which plagiarism or cheating is discovered; depending on the severity of the incident (including whether the student has previous incidents), a grade of F may be assigned in the course and a Student Conduct charge may be filed. Evidence of such dishonesty will be kept on file, and will not be returned to the student. Instructors have the responsibility to report such incidents to the Dean and the NS Conduct Office. Serious penalties may be imposed, depending on the nature of the incident.

Turnitin

By taking this course, you agree that all required assignments may be submitted to Turnitin for detecting plagiarism. All submitted papers will be included as source documents in the Turnitin reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin service is subject to the Turnitin End-User License Agreement (Links to an external site.) posted on the Turnitin site. If you do not agree, contact your instructor immediately.

ARTIFICIAL INTELLIGENCE

Use Only With Permission. Students are allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT or Bard) on assignments in this course if instructor permission is obtained in advance. Unless given permission to use those tools, each student is expected to complete each assignment without substantive assistance from others, including automated tools. Students are responsible for ensuring the accuracy of any information provided by an AI tool.

Student Success Resources

At some point in the semester, you may require assistance for a variety of issues. Here is a brief list of helpful resources:

- Academic Advising Center Links to an external site.
- Academic Success Center Links to an external site.
- Writing Center Links to an external site.
- Student CARE Team Links to an external site.
- Financial Aid Office Links to an external site.
- Mental Health Counseling Links to an external site.

The Academic Resources page has various academic resources including the academic calendar; disability accommodations; library guides; plagiarism, copyright, and citation information; and veteran concerns.

If life circumstances are making it difficult for you to succeed, please reach out to me and let me know. I am willing to work with you to devise a plan for success or make recommendations for other support services on campus. For example, I may connect you with an Academic Advisor who can develop a personalized success strategy that will keep you on track to graduate and discuss any

impacts to your financial aid. You can also contact Academic Advising directly at (702) 992-2160 or at studentsuccess@nevadastate.edu.

Emergency CARE Services

Emergency CARE Services Links to an external site. - If you are struggling with hunger, unstable housing, safety, mental health worries or any other concerns, contact case manager, Cassandra Crevling. Together, we can help meet those needs. Email: studentwellness@nevadastate.edu | Call (702) 992-2514 | Website: https://nevadastate.edu/studentwellness/ Links to an external site. *Links to an external site.*