# **Course Syllabus**

Spring 2023

## **Course Title**

# MATH 120, Fundamentals of College Mathematics, Section 001

# **Course Description**

This course emphasizes the applications of mathematics. Topics that you will learn in this class include algebra, probability, statistics and consumer mathematics. Emphasis will be placed on problem solving and applications. This course satisfies the Mathematics Core Curriculum.

#### **Course Format**

This is an in-person, synchronous course.

Time: TuTh 12:30PM - 1:50PM

Location: DAW 108

### **Instructor's Name and Contact Information**

Instructor's Name: Sungju Moon

**Primary Contact:** Use the conversation tool within Canvas

Office Location: DAW 223

Phone: 992-2725

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

## **Instructor's Office Hours**

Tuesdays 2:30PM-3:30PM, Wednesdays 4:00PM-5:00PM or by appointment

Office hours may be adjusted early into the semester to better accommodate student needs.

# **Email and Classroom Response Time**

Students can generally expect a response to emails within 24-48 hours (or slightly longer on weekends or holidays). Feedback for completed assignments is dependent upon the length and breadth of the activity and could take up to 10 days. For questions on the status of a completed assignment, discussion, or test please contact your instructor.

# **Required Text(s)**

- 1. Foundations for Success by Aaron Wong (click link to download)
- 2. 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 should print out their group work assignments and bring them to class every meeting.
- 3. 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

Specific topics and focus of the course as determined by the instructor. May include learning outcomes provided by department chairs or other administrators.

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
  - 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.

Click here for a more clearly defined list of learning outcomes for each topic.

### **Tentative Class Schedule**

# Link to Spring 2023 Schedule

Students will be notified if the course schedule changes.

# **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 before class each day. These are graded on a good-faith effort and timeliness of your submission. You are encouraged to ask questions about and complete any problems you have trouble with during or after class (you should still submit what you have done before class though).

### 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. These assignments are graded based on completeness, correctness, but also a good-faith effort.

## Quizzes (6%)

You will have a total of 5 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 (14%):

Homework assignments are assigned for each day's lecture material. Homework will be completed 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 (13%):

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.

These consumer mathematics portfolio assignments will be due according to the listed dates on the schedule.

These assignments will be submitted directly through CANVAS as a file upload.

## Exams (12% \*3= 42%):

There will be four exams during the semester that are worth 11% (each) 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 for class. The format of your exams will be announced in class.

## Final Project (13%):

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.

### ASSIGNMENT AND EXAM LATE POLICY

If you miss class or work due a medical or personal reason, you contact the <u>Student Absence Notification</u> <u>System</u>. Otherwise the following policies are enforced:

**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.

**Homework:** 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, which is 2 late passes. Use them wisely!

**In-class assignments:** There are NO make-ups for missed in-class assignments, but your two lowest grades will be dropped from your final grade. They are due at the end of every class session. No late work will be accepted.

**Projects:** The are no make-ups for missed projects.

**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 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. "Extra" points are not available for the course.

Evaluation Criteria	Percent of Final Grade
Pre-Class Assignments	5%
GW Assignments	7%
Homework	14%
Quizzes	6%
Mini-Projects	13%
Algebra Test 1	14%
Probability Test 2	14%
Statistics Test 3	14%
Final Project	13%
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.

# Student responsibilities

Students are responsible for reading, understanding, and abiding by the policies listed on the <u>Student Responsibilities page</u> and LAS-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
- Technical Support and Requirements
- LAS Academic Conduct Policy

### 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 <u>Copyright</u>, <u>Plagiarism</u>, and <u>Citing Sources</u> 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; NSC instructors' course materials are their intellectual property and are protected under copyright.

Detailed explanations and examples of plagiarism and cheating can be found in the <u>Academic Standards</u> section of the Student Code of Conduct and Policies. You are responsible for reading, understanding, and abiding by the Academic Standards.

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. 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 <u>Turnitin End-User License Agreement (Links to an external site.)</u> posted on the Turnitin site. If you do not agree, contact your instructor immediately.

### **Enrollment Cancellation for Non-Attendance**

Faculty must report whether students begin attending and participating in the academic content of all courses, including online courses. The Registrar's Office will administratively drop students reported by faculty as not participating by the end of the second week of fall and spring terms (shortened deadlines apply to accelerated terms).

Administratively dropped students will be removed from the course and the course will not appear on their transcripts. The Cashier's Office will reverse all charges related to the course and the Office of Financial Aid will make any necessary adjustments to dropped students' award packages.

For more information, refer to the enrollment cancellation policy.

Students who wish to drop or withdraw from a course remain responsible for doing so through their myNSC student account.

### **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
- Academic Success Center
- Writing Center
- Student CARE Team
- Financial Aid Office
- Mental Health Counseling

<u>The Academic Resources page</u> 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 <a href="mailto:studentsuccess@nsc.edu">studentsuccess@nsc.edu</a>.

## **Emergency CARE Services**

Emergency CARE Services- If you are struggling with hunger, unstable housing, safety, mental health worries or ANY other concerns, contact case manager, Laura Hinojosa. Together, we can help meet those needs. E-mail: <a href="mailto:laura.hinojosa@nsc.edu">laura.hinojosa@nsc.edu</a> | Call 702.992.2514 | Website: <a href="https://www.nsc.edu/care">www.nsc.edu/care</a>

# **Military and Veterans**

Veterans and active duty military personnel with special circumstances are welcome and encouraged to communicate these, in advance if possible, to the instructor. If you are active duty, National Guard, or reserve and will be missing class due to military obligations, I encourage you to submit those absences through the <u>Student Absence Notification Form</u>. For more information regarding this process, please contact Academic Advising at <u>aac@nsc.edu</u> or call 702-992-2160. For complete information regarding the policy, you can visit the <u>Student Military Leave Policy</u>.

## **Additional Information**