University of Wisconsin – Milwaukee
Mathematical Literacy for College Students I Syllabus
Math 092 Section 3002 (22671)
Fall Semester 2020-2021
Online

Dear student,

Welcome to Math 092! I am your instructor Sunita Mehrotra. Please feel free to address me as Sunita Mehrotra or simply Sunita.

This is not an easy course nor one with a light workload. It is a useful course in which you will focus on a handful of highly-relevant topics to develop the deep level of understanding needed to use numbers when making and defending decisions: "Should my business hire another worker or lay someone off? Which car should I buy? Was I overcharged? What is that deceptive political ad really saying? Is that policy fair?" Expect to brainstorm, discuss, critique, and evaluate. You will write, speak, and present much more than in a traditional math course.

This course is part of a pathway for completing your Quantitative Literacy Part A (QLA) math graduation requirement. All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental, and health issues that require quantitative reasoning skills. An activity-based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. You will develop tools that support the use of key mathematical concepts in a variety of contexts.

This pathway requires time, dedication, commitment, and energy. You will likely work harder than you have before, but you may also gain more than you have in previous math courses. I encourage you to try to keep an open mind as you start your journey. I am here to assist you in every way possible in your travels because I know each and every one of you can be successful in this course, but what you get out of the journey will be up to you.

This new co-requisite program will allow you to enroll in Math 102 with Math 092. You will be starting with the first lesson of Math 102 during the first week of class and working through the college-level course. However, you may need to review some mathematical skills in order to do well in the college-level material. As a result, in this part of the pathway, we are going to work on specially created lessons. Each lesson is designed to review the background material you will need for the Math 102 lesson the next day. You will be expected to complete the lesson individually and do practice problems each night. Read through the syllabus to find out more details. A schedule is also included so you can see how the two courses will work together in this co-requisite program.

In this course, we are going to be using Canvas and a math program called Realizeit. To make sure that you have a successful semester, it is important that you get the following things done before the first day of class, which is **Wednesday (September 2)**:

- Look through the course site on Canvas (published this weekend). There is a lot of documentation and information there! :)
- Log in to the Carnegie Math Pathways (CMP) portal to access Realizeit: https://portal.carnegiemathpathways.org/users/sign_in
  More information was sent with my Welcome email.
- Read through the Course Overview on Canvas which contains several videos, so you know what to expect.
- Complete the **Welcome! Discussion** on Canvas.
- Complete the first two Course Surveys (through the CMP Portal): *Survey 1 and Pre-Course Math Quiz.* (These will not be available until September 2.)
- Plan to **attend the Orientation Session on Thursday (September 3) from 8:00pm-10:00pm**.
- Plan to attend the first Collaboration Session (Collaboration N.1) on **Tuesday (September 8) from 8:00p.m-10:00p.m**. This is the first lesson, which I will facilitate so you know how the Collaboration sessions will work BEFORE you have to do them on your own with your group each week. You must complete the entire **Corequisite N.1** lesson as well as the **N.1 Preparation** assignment (found in the **N.1 College** link in Realizeit) before this collaboration session.

The following pages are the course syllabus to let you know about the course policies and requirements. The syllabus is quite long to cover all the details needed. Be sure to read through the (long!) welcome letter I emailed everyone as well. Please contact me if you did not receive the welcome letter.

If you have any question about the course, please do not hesitate to email me. I look forward to working with you this fall and helping you to succeed in this course!

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Prerequisite: concurrent enrollment in Math 102

This course concurrently with Mat 102 is a pre-requisite to take CGS Mat 215 Elementary Statistical Analysis.

Course Description:

Mathematical Literacy for College Students I is the first course in a two course sequence integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Satisfactory completion of this sequence satisfies the Quantitative Literacy-A Requirement, giving a student the ability to evaluate, construct and communicate arguments using quantitative methods and formal reasoning. This ability is consistent with the following Mathematical Practice (MP) standards from the Common Core:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

We want you to understand how math arises in everyday situations, and

to help you understand why math is relevant to your life!

Specifically, the course Mathematical Literacy for College Students I covers an introduction to numeracy, proportional reasoning, algebraic reasoning, and functions. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. Throughout the course, college success content will be integrated with mathematical topics.

Materials You Will Need for this Course (have these before the first lesson):

- You are required to regularly access **Realizeit**, the platform for our mathematical content (lessons and homework). One access code will work for both classes. You can purchase access for about $80 from the ecampus bookstore. (ACCESS CODE: *Quantway College + Co-Requisite Virtual Course - 2020-2021* by Quantway College ISBN: 9781711402963 Format: eBook Publisher: XANEDU Pub. Date: 1/1/2020). For the Math 092 course: You will be individually completing the Corequisite Lesson and then individually completing the Practice Problems after the lesson. It is expected that you will fully complete two Math 092 Corequisite units each week. In addition, these must be completed BEFORE your group collaboration session on the associated lesson. Our course enroll code is: **59N2-JM93**
- There is no **textbook** for this class. All lessons are found and will be completed online. If you have purchased a textbook, then you do NOT have the correct materials for class! Please do NOT open the package and contact me immediately.
- Any scientific **calculator is allowed to be used during classwork and class assessments.**
- Cell phones or other electronic gadgets will NOT be allowed to be used as calculators during assessments.
- You will be required to use the remote proctoring service, **Proctorio**. You will need to make sure you have the necessary equipment to run the program.

Help with the Course:

1. Make use of your group members and other members of the class.
2. Don't forget about the Discussion area of Canvas.
3. Contact your instructor.
4. Virtual help
    - **Tutoring**: The Student Success Center and the Mathematical Sciences department together offer tutoring and homework help for most lower division math classes: Drop-in tutoring is available online, and small group tutoring by appointment. **For Fall 2020 all tutoring is virtual,** details at https://uwm.edu/waukesha/tutoring/

Grading Scale:

A: 90 - 100% B: 80 - 89% C: 70 - 79% D: 60 - 69% F: below 60%

A final grade of C is required to satisfy the Quantitative Literacy Part A (QLA) graduation requirement.

The final grade will be based on the following formula:

25	Corequisite work: Lessons and Practice Problems
15	Numeracy Module (Module N) Assessment
20	Modeling Module (Module M) Assessment
20	Statistics Module (Module S) Assessment
20	Proctored Cumulative Final Assessment (online)
100%	Total

Important Course Responsibilities:

- **Workload:** According to university requirements, each credit requires the average student to expend 48 hours of energy to satisfy the course learning outcomes. This means you will need a minimum of 144 hours for this course (around 10-12 hours per week).

The following workload estimation is based on the average student.

PLEASE NOTE: The following chart indicates the requirement for the Math 092 part of the pathway only. You are taking TWO math classes. You will be expected to spend just as much time for the Math 102 part of the pathway. For both math courses: The average student will need to spend 2-3 hours EVERY DAY doing math (lessons, problems, and activities) plus 2-3 more hours on the weekend doing homework, reading and studying. This is in addition to the required synchronous class meetings. In addition, it is recommended that students spend 1-2 hours per week at tutoring. See more details in the **Help with the Course** section of the syllabus.

Item	Hours Spent
Lesson time: • Corequisite Lessons (completed individually) • Assessments (completed individually)	~ 4 hours per week (~ 52 hours)
Time spent after each class session: • Review notes from the lesson • Rework and/or complete problems from the lesson • Write complete solutions for use when completing online homework and when reviewing for exams • Do *Practice Problems* online homework problems: an extension of what was done in the lesson • Complete any other homework activities • Complete corrections for incorrect problems on assignments • Read the next lesson materials in Canvas to prepare • Check UWM email and course site at least four times per week for any important course announcements • Create list of questions to ask instructor, tutor, or group members before next lesson • Get answers to questions: email instructor, attend tutoring sessions, contact group members, etc.	~ 6 hours per week (~ 78 hours)
Study time: Before each assessment … • Be sure notes are in order • Be sure you have correct answers to all problems (from class work as well as individual work) • Review answers to questions asked instructor or tutor • Work additional problems starting with any specifically assigned review problems • Attend additional instructor office hours, review sessions, and/or tutoring session for specific assessment help • Understand all information about assessments, including special instructions, format of assessment, rubrics for projects, etc.	~ 2 hours for each module assessment (~ 6 hours) plus 8 hours for the final (~ 14 hours total to study for assessments)
Total for the semester	~ 52 + 78 + 14 = **144 hours**

- **Corequisite work:** You will receive a grade for each Corequisite unit. A unit consists of one or two activities. First, every Corequisite unit will have a lesson, where students will work individually to complete the lesson problems. Second, almost every unit will have a set of Practice Problems that are designed to come after the lesson as homework to be done after class. Some units will also have additional activities, such as surveys, to complete. A unit grade cannot be entered until all parts of the unit are finished. Be sure to do two Corequisite units per week to keep on schedule for getting through all the material and completing the assessments on time. Remember that the Corequisite lessons are designed to prepare you for the following Math 102 College lesson. So, the Corequisite lessons and Practice Problems must be completed before the corresponding Math 102 Collaboration session is attempted. More about this in the Course Overview in Canvas as well as in the Orientation Session.

- **Individual online homework:** The average student in this class is expected to spend **10-12 hours per week for just this class**. See workload chart above. Almost all of this time for Math 092 will be spent completing individual online lessons and work. Every lesson includes a homework assignment that must be submitted online before the next lesson.

  DO THE ONLINE HOMEWORK ASSIGNMENTS – AND DO THEM IN ORDER! The online work in this course is not just a set of additional problems that provide extra practice; **the online work in this class is an integral part of the instruction**. New concepts are introduced online before the lesson, and concepts developed during the lesson are extended online after the lesson. It is important that you not only complete all the problems, but also complete the assignments in order. Canvas will clearly show you the order in which lessons and activities should be completed

- **Collaboration sessions:** There are no collaboration sessions required for the Math 092 part of the program. However, the instructor may require additional posts to Canvas or small group meetings to make sure everyone is understanding the corequisite material.

- **Assessments:** There will be an assessment given at the end of each of the three modules in the pathway. **There are NO make-ups**, except for university sanctioned events (see late assignments and make-up policy)**.** The lowest score of your three module assessments will be replaced with your final assessment score if it improves your overall grade. The final assessment score cannot be dropped or replaced. The final is a comprehensive test and will cover all the topics contained in this course. It will be given at the end of the course. Assessment dates are listed on the course schedule. Assessments may be tests or projects. In addition, all assessment tests must be proctored. The math department uses a remote proctoring service called, Proctorio. More information will be posted on Canvas. A subset of each assessment will be used for the Math 092 assessment score.

  In order to help preserve the academic integrity of the class, students should be expected to show photo ID's before each assessment, students who fail to show all work or wrong work/right answer on an assessment question or for any other reason are suspected of academic misconduct will be required to have a private videoconference session with the instructor in which they explain their answers.

- **Technology during course**: This course is conducted completely online, so students will be expected to have a computer, internet, microphone/speakers and webcam available for exam proctoring and ideally for group participation as well. Students without a webcam or a computer should contact the instructor ASAP for potential accommodations. Cellphones are NOT considered a computer. Tests may be proctored via Proctorio software requiring students to pay $5-10 per test. Dependable internet access is required. You will need to access your UWM email and Canvas as well as the course Realizeit site at least five times per week for important course announcements, lessons, and assignment work. Calculators are required for use during each lesson. Cellular phone use is not permitted during class time. Furthermore, phones should have the ringer turned off during class sessions and phones must be turned completely off during assessments. Phones seen during an assessment, may result in a score of zero.

  Proctorio, remote proctoring system, requirements:

  - ✓ Desktop computer or laptop (not tablet nor cellphone)
  - ✓ Webcam and microphone (built-in or external) – test your webcam at www.testmycam.com
  - ✓ Connection to network with sufficient internet speed: at least 2 Mbps download speed and 2 Mbps upload – test internet speed at www.speedtest.net
  - ✓ Operating systems: Windows XP or newer, Mac OS X 10.8 (Mountain Lion) – or newer
  - ✓ Chrome Browser (MUST be Chrome as Proctorio is a Chrome extension)

Important Course Policies:

- **Late assignment and make-up policy: NO late assignments or make-ups will be allowed**. The ONLY exceptions to this policy are for serious illnesses, court appearances, military duty, university-sponsored athletics, religious observances, or justified absences due to circumstances beyond the student's control. If one of the above exceptions applies, these procedures must be followed and accompanied by appropriate documentation:

  - For module exams, documentation related to the exception must be submitted before any alternative arrangements will be considered. You must contact the instructor no later than the day after the missed exam, and the make-up exam must be taken with a week of the scheduled exam.
  - Acceptable documentation must be dated and must demonstrate that you could not avoid missing the assignment/examination on that date. For example, appropriate documentation for a serious illness would be a medical excuse on physician's letterhead, signed by the physician, stating that you could not be in class to take the exam on that date.

- A make-up final examination is only considered under extreme circumstances and must be approved by the course coordinator and department chairperson.
- Under no circumstances are students allowed to take module test or final examinations early.

- **Important Dates:**

September 2	First day of classes
September 3	**Orientation Session (online) from 8:00pm-10:00pm**
September 8	**Unit N.1 Collaboration (online) from 8:00pm-10:00pm**
September 29	Last day to drop without "W" (Withdrawn) on record
October 7 – Oct 11	**Numeracy Module (Module N) Assessment**
November 6 – Nov 10	**Modeling Module (Module M) Assessment**
November 8	Last day to drop
November 25 – 29	Thanksgiving Break (no classes)
December 4 – Dec 8	**Statistics Module (Module S) Assessment**
December 14	Last day of classes
December 15	Study day
December 16 – Dec 23	**Proctored Cumulative Final Exam** (during finals week)

Important University Policies:

- Students with disabilities: http://uwm.edu/arc/
- Religious observance:https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-2.%20Accommodation%20of%20Religious%20Beliefs.pdf
- Students called to active military duty: http://uwm.edu/active-duty-military/
- Incompletes: https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-13.%20Incomplete%20Grades.pdf
- Title IX/Sexual Violence: https://uwm.edu/titleix/
- Title IX Coordinator: titleix@uwm.edu
- For more information, please visit: https://uwm.edu/sexual-assault/
- Academic misconduct: https://uwm.edu/deanofstudents/conduct/academic-misconduct/
- Complaint Procedures:
- https://apps.uwm.edu/secu-policies/storage/other/SAAP%205-1.%20Discriminatory%20Conduct%20Policy.pdf
- Grade appeal procedures: https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-10.%20Grade%20Appeals%20by%20Students.pdf
- LGBT+ resources: http://uwm.edu/lgbtrc/
- Smoke and Tobacco-Free campus: https://apps.uwm.edu/secu-policies/storage/other/SAAP%2010-8.%20Smoke%20and%20Tobacco-Free%20Campus%20Policy.pdf
- Final Examination: https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-9.%20Final%20Examinations.pdf
- **Final exams:** According to university policy, students must take the final exam at the given time in the location that will be determined before the semester ends. Under no circumstances are students allowed to take the exam early.
- **Course policy issues, complaints, or concerns:** You should first contact your instructor.

Tentative Schedule for September (Fall 2020)

Red indicates campus events
Boldface red are important class events
Boldface black are group activities
Green indicates individual Corequisite Lesson & Practice Problems assignments in Realizeit
Blue indicates individual College Unit assignments (Preparation & Exercises) in Realizeit
Black indicate additional activities to be completed

◄ August **September 2020** October ►

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	**2**	**3** Course surveys **ORIENTATION SESSION AS CLASS (8:00p.m-10:00p.m)**	**4** Corequisite N.1 Lesson Preparation N.1	**5**
6	**7** Labor Day (no class)	**8** **COLLABORATION N.1 AS CLASS (8:00p.m-10pm)** Exercise N.1	**9** Corequisite N.2 Lesson Corequisite N.2 Practice Probs Preparation N.2	**10** **Collaboration N.2 (group)** Exercise N.2	**11** Review summaries and Canvas documentation Complete any missing work	**12** Redo low score assignments
13	**14** Corequisite N.3 Lesson Corequisite N.3 Practice Probs Preparation N.3	**15** **Collaboration N.3 (group)** Exercise N.3	**16** Corequisite N.4 Lesson Corequisite N.4 Practice Probs Preparation N.4	**17** **Collaboration N.4 (group)** Exercise N.4	**18** Review summaries and Canvas documentation Complete any missing work	**19** Redo low score assignments
20	**21** Corequisite N.5 Lesson Corequisite N.5 Practice Probs Preparation N.5	**22** **Collaboration N.5 (group)** Exercise N.5	**23** Corequisite N.6 Lesson Corequisite N.6 Practice Probs Preparation N.6	**24** **Collaboration N.6 (group)** Exercise N.6	**25** Review summaries and Canvas documentation Complete any missing work	**26** Redo low score assignments
27	**28** Corequisite N.7 Lesson Corequisite N.7 Practice Probs Preparation N.7	**29** **Collaboration N.7 (group)** Exercise N.7	**30** Corequisite N.8 & N.9 Lesson Corequisite N.8 & N.9 Prac Probs Preparation N.8	**General schedule:** **Mon: Coreq (092) Tues: College (102)** **Wed: Coreq (092) Thurs: College (102)** **Fri: Review week and Prep for following week** **Sat: Redo low score assignments**		