



Syllabus for Concepts of Mathematics (GNMT 3003) Spring Semester 2024

Dr. Austin Kureethara Manuel

West College of Education

Course Dates: Jan 16, 2024 - May 4, 2024

Credit Hours: 3

Contact Information

Course E-Mail (preferred): austin.manuel@d2lmail.msutexas.edu

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Office hours: Tuesdays, Wednesdays & Thursdays 6:30 pm – 8:15 pm. You should schedule (the schedule link will be provided in D2L) your time to avoid conflicts. Please contact me for additional office hours.

Class Hours: Online (Asynchronous)

How to contact me?

Use the email within D2L. This will help us to organize a private email system for our class. You may use my office email in case needed. If you are using my office email, make sure that you start the subject of the email with "GNMT 3003: student first name, last name" so that I will know that the email is from our class, which will promote faster replies. In case you need to talk to me, use D2L links to schedule zoom meetings.

Catalog Description of the Course

This course focuses on the mathematics content emphasizing the skills related to geometry, measurement, statistics, algebra, and discrete mathematics. (Refer undergraduate catalog, MSU.)

Competency List

This course will build mastery of the following competency (or competencies):

- Standard 3--Content Knowledge and Expertise: A comprehensive understanding of the content, discipline, and related pedagogy.
- Competency 011 (Mathematics): The foundational principles, concepts, and methods in mathematics to provide developmentally appropriate instruction for students in prekindergarten to grade 3.

Student Learning Outcomes

Upon completion of this course, the student-teacher will be able to

(LO1): Demonstrate knowledge of the Mathematics domain of the Texas Prekindergarten Guidelines and the Texas Essential Knowledge and Skills (TEKS) for Mathematics (Kindergarten through Grade 5), as well as ways to scaffold and

sequence skills and concepts to teach mathematics to young children. (*Competency 11A*).

(LO2): Design ~~and execute~~ quality lessons that are consistent with the concepts of their specific discipline, are aligned to state standards, and demonstrate their content expertise related to Number concepts and Operations (Grades K-5) and demonstrate content-specific pedagogy that meets the needs of diverse learners, utilizing engaging instructional materials to connect prior content knowledge to new learning. (Standard 3B, 3C & Competency 11B, 11C, 11D, 11E, 11H & 11J).

(LO3): Understand the major concepts, key themes, multiple perspectives, assumptions, processes of inquiry, structure, and real-world applications of their grade-level and subject-area content related to Number concepts and Operations (Grades K-5) (*Standard 3A*)

(LO4): Understand the major concepts, key themes, multiple perspectives, assumptions, processes of inquiry, structure, and real-world applications of their grade-level and subject-area content related to Algebraic reasoning (Grades K-5) (*Standard 3A*)

(LO5): Understand the major concepts, key themes, multiple perspectives, assumptions, processes of inquiry, structure, and real-world applications of their grade-level and subject-area content related to Geometry and measurement (Grades K-5) (*Standard 3A*)

(LO6): Understand the major concepts, key themes, multiple perspectives, assumptions, processes of inquiry, structure, and real-world applications of their grade-level and subject-area content related to Data analysis (Grades K-5) (*Standard 3A*)

(LO7): Understand the major concepts, key themes, multiple perspectives, assumptions, processes of inquiry, structure, and real-world applications of their grade-level and subject-area content related to Personal financial literacy (Grades K-5) (*Standard 3A*)

Attendance / Participation

Students should participate in all online activities of this course. Logging into D2L at least twice a week will be considered as your attendance for the week. In case of an emergency that will not allow you to log on to D2L, please let me know as early as possible. It is important that students should meet all the deadlines as posted online. In case of any emergency (like death or illness in family and so on) it is important that the student should report the same to the professor in a timely manner. It is your course, and the primary intention should be to reach the goals and acquire proficiency in the topics discussed in the course. Excessive tardiness or absence (as determined by the professor) might result in instructor-drop, if required.

Instructional materials

Materials – Online Resources, Readings, Supplementary Readings
Textbooks –None. Numerous links and files will be provided within the course.

Instructor-drop

As per the College policies, an instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct. Instructor will give the student a verbal or written warning prior to dropping the student from the class. The instructor-drop take precedence over the student-initiated course drop of a later date. The instructor will assign a grade of either WF or F through the first 8 weeks of this semester. After this period, the grade will be an F. The date the instructor drop form is received in the Office of the Registrar is the official drop date.

Academic Honesty and Intellectual Property

Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individuals to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct. By enrolling in this course, the student expressly grants MSU a **limited right** in all intellectual property created by the student for the purpose of this course. The **limited right** shall include but shall not be limited to the right to reproduce the student's work product to verify originality, authenticity, and educational purposes. Please check with the [Student Handbook](#) (Midwestern State University, 2021e).

Computer Requirements

Taking an online class requires you to have access to a computer with Internet access to complete and upload your assignments. See the technical requirements and associated system check in the webpage, [D2L Technical Requirements](#). It is your responsibility to have (or have access to) a working computer for this class. Assignments are due by the due date, and computer technical difficulties will not be considered reason for late submissions. Computers are available on campus in case you need to use them. Your computer being down is not an excuse for missing a deadline!! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, please contact helpdesk@msutexas.edu. For more information on the MSU's IT services, see [Information Technology webpage](#) (Midwestern State University, 2021c). If you are new to D2L or if you are having technical difficulty with any part of D2L, please contact [Distance Education](#) (Midwestern State University, 2021d). Other support options can be found in [D2L community webpage](#) (Bright Space, 2021).

Instructional Methods & Assessments

This is an asynchronous online course. We do not meet on a particular day or time every week. However, I have assigned time on Mondays (5:30 pm to 8:20 pm) exclusively for our class.

Pretest

The Pretest for this course assesses your knowledge in mathematical content emphasizing the skills related to number and operations, algebraic reasoning, geometry and measurement, data analysis and personal financial literacy. The purpose of the pretest is to provide a baseline understanding of your knowledge in this competency. The pretest is required for the course.

Module Tests

You need to complete a test in each module. You should score at least 80% in each test to move to the next module. Again, it is a great opportunity to review what you learned in each module.

Quality Mini Lessons

You need to design one quality mini lesson that are consistent with the concepts of each unit, aligned to state standards. The quality mini lessons should demonstrate your content expertise related to the content in each module. The quality mini lessons should also demonstrate content-specific pedagogy that meets the needs of diverse learners, utilizing engaging instructional materials to connect prior content knowledge to new learning. The associated template with instructions and the rubrics are provided in each module.

Posttest

Posttest for this course assesses your knowledge in mathematical content emphasizing the skills related to number and operations, algebraic reasoning, geometry and measurement, data analysis and personal financial literacy. The Posttest is an assessment of your knowledge of the material required for the competency, as described in Standard 3. A score of 80 points or higher is required to demonstrate the competency. If you score less than 80 points on any competency, you will have an opportunity to review the material and re-take the competency Posttest. You may take the Posttest assessment up to three times. If you have not passed the competency in three attempts, you will work with a Faculty Coach to determine another method of fulfilling the program requirements in this subject.

Competency assessments.

- The Posttest and the module tests assess your overall knowledge of the learning outcomes related with content knowledge for this course (*Standard 3*). To emphasize, a score of 80 percent or higher on the Posttest is required to demonstrate competency. You should also score at least 80% in the module tests to move on to the next module. You are allowed to retest the module tests.
- The Quality mini lessons included in each module measure the Mathematics Competency 011. The corresponding template (with instructions) and a rubric are posted in each module for your help.

Grading

Module	Assignment Name	Assignment score	Required Score
-	Pretest (out of 200; not counted towards your grade)	-	-
M1	Know Your TEKS Test	100	80%
M2	Number and Operations (Grades K-5) Test	100	80%
M2	Number and Operations (Grades K-5) Quality Mini Lesson	100	80%
M3	Algebraic reasoning (Grades K-5) Test	100	80%
M3	Algebraic reasoning (Grades K-5) Quality Mini Lesson	100	80%
M4	Geometry and measurement (Grades K-5) Test	100	80%
M4	Geometry and measurement (Grades K-5) Quality Mini Lesson	100	80%
M5	Data analysis (Grades K-5) Test	100	80%
M5	Data analysis (Grades K-5) Quality Mini Lesson	100	80%
M6	Personal financial literacy (Grades K-5) Test	100	80%
M6	Personal financial literacy (Grades K-5) Quality Mini Lesson	100	80%
FINAL	Posttest (Modules 1 -5)	200	80%
	Total	1300	-

Letter Grade Scale (The points obtained will be rounded to the nearest integer)

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

Late submissions: 10% reduction in the grades for each day you are late to submit the assignment.

Study Hours and Tutoring Assistance

Tutoring and Academic Support Programs (TASP) offers a schedule of selected subjects tutoring assistance. Please visit the [TASP webpage](#) (Midwestern State University, 2021f) for more information.

Student Responsibilities or Tips for Success in the Course

On-line courses are convenient and effective method of learning. However, online courses require organization skills. The following are some recommendations to be successful in this course (1) Schedule at least 9 hours a week for this course, and

(2) Adhere to the due dates. You may turn in assignments early. Seek clarification for any concern in a timely manner. Wish you all success in this course. Please enjoy the experience of understanding, analyzing, and synthesizing existing research.

Course and University Procedures/Policies

To demonstrate competency, you must achieve 80% or higher on each required competency assessment.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Student Conduct

Students are expected to uphold and abide by certain standards of conduct that form the basis of the Student Code of Conduct. These standards are embodied within a set of core values that include integrity, social justice, respect, community, and responsibility. When members of the MSU community fail to exemplify these values, campus conduct proceedings are used to assert and uphold the Student Code of Conduct. The Code of Student Conduct is described in detail in the [student handbook](#) (Midwestern State University, 2021e). Students should also consult the Rules of Netiquette for more information regarding how to interact within online environment in this [online forum](#) (Encyclopedia Britannica, 2021).

Electronic Network Access

Students using the university network facilities and services will indemnify and hold harmless the university against all actions or claims of infringement of intellectual property rights arising from the use of a network-based service or facility provided by the university. Network access is provided by password control. All passwords are managed and controlled by Information Systems. See [Student Handbook](#) (Midwestern State University, 2021e) for specific policies on electronic network access.

Academic Dishonesty

Students at MSU are expected to maintain high standards of integrity and honesty in their scholastic work. For more details and the definition of academic dishonesty see the [Student Handbook](#) (Midwestern State University, 2021e).

Students with Disabilities—ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. It is the policy of Midwestern State University that no otherwise qualified person, based on disability, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any education program, activity, or employment of

the university. If you have a disability requiring an accommodation, please contact the office mentioned below.

Office of Student Disability Resources and Services

Physical location: Room 168, Clark Student Center, 3410 Taft Blvd, Wichita Falls, TX 76308. Phone: (940) 397-4140 Email: debra.higginbotham@msutexas.edu

You may also visit the corresponding [webpage](#) (Midwestern State University, 2021b).

Nondiscrimination Notice

MSU will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation based on race, color, religion, sex, national origin, disability, age, genetic information, or veteran status. Further, an environment free from discrimination based on sexual orientation, gender identity, or gender expression will be maintained.

Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University [graduate catalog](#) (Midwestern State University, 2021g) for the process.

Campus Concealed Carry Statement

MSU is committed to providing a safe and secure learning, working, and living environment for students, faculty, staff, and visitors, and to respecting the right of individuals who are licensed to carry a handgun where permitted by law. Individuals who are licensed to carry may do so on MSU's campus premises except in locations and at activities that are prohibited. The carrying of any handgun by an unlicensed person or the open carry of a handgun is not permitted in any place on MSU's campus premises. For more information regarding campus carry, please refer to the University's webpage for [Campus Carry](#) (Midwestern State University, 2021a) and the [Student Handbook](#) (Midwestern State University, 2021e).

COVID

Scientific data shows that being fully vaccinated is the most effective way to prevent and slow the spread of COVID-19 and has the greatest probability of avoiding serious illness if infected in all age groups. Although MSU Texas is not mandating vaccinations in compliance with Governor Abbott's executive orders, we highly encourage eligible members of our community to get a vaccination. If you have questions or concerns about the vaccine, please contact your primary care physician or health care professional. Given the recent rise in cases, individuals are also strongly encouraged to wear facial coverings when indoors among groups of people, regardless of vaccination status. Although MSU Texas is not currently requiring facial coverings, they have been an effective strategy in slowing the spread.

Tentative Course Schedule

Concepts of Mathematics (GNMT 3003) Spring Semester 2023

Disclaimer Notice: Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor to meet the needs of the class appropriately.

Module Topic	Materials to Read and Review	Assignments
Week 1 (1/16–1/21) Pretest	No Review Needed	Complete on first day to open module 1.
Week 2 (1/22–1/28) M1 – LO1. Know your TEKS. (Grades K-5)	Use the resources mentioned in D2L module. M1 Test	<ul style="list-style-type: none"> • Know Your TEKS Test
Weeks 3, 4 (1/29 – 2/11) M2 – LO2, LO3. Number and Operations (Grades K-5)	Use the resources mentioned in D2L module. M2 Test	<ul style="list-style-type: none"> • Number and Operations (Grades K-5) Test • Number and Operations (Grades K-5) Quality Mini Lesson
Weeks 5 & 6 (2/12 – 2/25) M3 – LO4, LO5 Algebraic reasoning (Grades K-5)	Use the resources mentioned in D2L module. M3 Test	<ul style="list-style-type: none"> • Algebraic reasoning (Grades K-5) Test • Algebraic reasoning (Grades K-5) Quality Mini Lesson
Weeks 7, 8 & 9 (2/26 – 3/24) M4 – LO6, LO7 Geometry and measurement (Grades K-5) Spring Break (3/10 – 3/16)	Use the resources mentioned in D2L module. M4 Test	<ul style="list-style-type: none"> • Geometry and measurement (Grades K-5) Test • Geometry and measurement (Grades K-5) Quality Mini Lesson
Weeks 10, 11 & 12 (3/25 – 4/21) M5 – LO8, LO9 Probability and Statistics (Grades K-5) Holidays (3/28 – 3/31)	Use the resources mentioned in D2L module. M5 Test	<ul style="list-style-type: none"> • Probability and Statistics (Grades K-5) Test • Probability and Statistics (Grades K-5) Quality Mini Lesson

Module Topic	Materials to Read and Review	Assignments
Weeks 13 (4/22 – 4/28) M6 – LO10, LO11 Personal financial literacy (Grades K-5)	Use the resources mentioned in D2L module. M6 Test	<ul style="list-style-type: none"> • Personal financial literacy (Grades K-5) Test • Personal financial literacy (Grades K-5) Quality Mini Lesson
Weeks 14/ (4/29 – 5/5) Get ready for the final test	Get ready for the final test	<ul style="list-style-type: none"> • Get ready for the final test
POSTTEST Choose a day in between (5/6 – 5/8). Posttest is timed and should be done in one sitting.	REVIEW ALL NECESSARY MODULES	<ul style="list-style-type: none"> • COMPLETE BEFORE 5/10/2022 11:30 PM (80% or higher required)

References

- Bright Space. (2021). *Student*.
<https://community.brightspace.com/support/s/topic/0TO0A000000003myWAA/student>
- Encyclopedia Britannica. (2021). *Netiquette*. Encyclopedia Britannica.
<https://www.britannica.com/topic/netiquette>
- Midwestern State University. (2021a). *Campus Carry*. <https://msutexas.edu/campus-carry/>
- Midwestern State University. (2021b). *Disability Support Services*.
<https://msutexas.edu/student-life/disability/>
- Midwestern State University. (2021c). *Information Technology*. <https://msutexas.edu/it/>
- Midwestern State University. (2021d). *New Online Students*.
<https://msutexas.edu/distance/new-online-students.php>
- Midwestern State University. (2021e). *Student Handbook*. Midwestern State University.
https://msutexas.edu/student-life/_assets/files/handbook.pdf
- Midwestern State University. (2021f). *Tutoring & Academics Support Programs*.
<https://msutexas.edu/academics/tasp/>
- Midwestern State University. (2021g). *University Catalogs*.
<https://msutexas.edu/registrar/catalog/>