



SYLLABUS

MATH 3003 – Mathematics in Elementary Schools Summer 2020

Instructor:	Elizabeth Stoerkel
Section # and CRN:	Z01 and 32589
Office Location:	BNKS 331
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Office Hours:	MW 1:00 – 2:30 PM in Zoom TR 10:00 – 11:30 AM in Zoom
Mode of Instruction:	Online
Course Location:	
Class Days & Times:	MW 1:00 – 2:30 PM in Zoom TR 10:00 – 11:30 AM in Zoom
Catalog Description:	A conceptual approach to introducing mathematics concepts and the integrating of content, pedagogy and assessment which include treatments of the nature of selective pre-algebra and discrete topics and the use of EC-4/4-8 TEKS Standards V-VI.
Prerequisites:	MATH 2163 with a grade of “C” or approval of the Mathematics Department
Co-requisites:	None
Required Texts:	No textbook is required, but access to eCourses/Canvas is required. <i>Required Supplies:</i> A scientific calculator, protractor, compass, straightedge and graph paper are required. A TI-83 or TI-84 series graphing calculator is recommended.
Recommended Texts:	Miller, Charles, Heeren, Christopher, Heeren, Vern, & Hornsby, John. <u>Mathematical Ideas</u> . 13 th edition Pearson, 2016. ISBN 978-0-321-977076. Sonnabend, Thomas. <u>Mathematics for Teachers: An Interactive Approach for Grades K – 8</u> . 4 th edition Brooks/Cole, 2010. ISBN 978-0495561668 Billstein, R., Libeskind, S, Lott, J., and Boschmans, B. <u>A Problem-Solving Approach to Mathematics for Elementary School Teachers</u> . 12 th edition Pearson. ISBN-10: 0-321-98729-2.

Course Objectives	Program Learning Outcome	Core Curriculum Outcome Alignment	TEA Education Standards
Upon successful completion of this course, the student:			
understands and uses spatial reasoning and transformational geometry.	1,4	1,2,3,4	3
analyzes the attributes of geometric figures, polygons and three-dimensional solids to develop generalizations about their properties.	1,4	1,2,3,4	3
selects appropriate units, strategies, and tools to solve problems involving length, perimeter, area, surface area, volume, time and customary and metric measurement.	1,3,4	1,2,4	3
uses various sampling techniques to collect data.	4	1,2,3,4	4
organizes and displays the data using a variety of graphs to interpret the data	4	1,2,3,4	4
summarizes data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread).	1,3,4	1,2,3,4	4
uses the numerical summaries to describe the center, spread, and shape of the data distribution.	1,4	1,2,3,4	4
collects, displays and interprets bivariate data.	1,4	1,2,3,4	4
uses counting methods to find the number of arrangements of objects.	1,3,4	1,2,4	4
understands and interprets probability.	4	1,2,4	4
determines experimental and theoretical probabilities related to simple and compound events using data and sample spaces.	1,4	1,2,4	4
applies mathematical processes to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor.	1,3,4	1,2,3,4,5,6	1,2,5
applies mathematical processes to manage one's financial resources effectively.	1,3,4	1,2,3,4,5,6	1,2,5
understands and uses mathematical processes to reason mathematically.	1,4	1,2,3,4	5
solves mathematical problems.	1,3,4	1,2,3,4	5
makes mathematical connections within and outside of mathematics.	1	1,2,3,4	5
communicates mathematically.	4	2,3	5
understands the historical development of mathematical ideas, the interrelationship between society and mathematics, the structure of mathematics and the evolving nature of mathematics and mathematical knowledge.	1,4	1,2,3	6
understands how children learn and develop mathematical skills, procedures and concepts, knows typical errors students make and uses this knowledge to plan, organize and implement instruction.	1,3,4	2,4	7

Program Learning Outcomes:

1. Demonstrate basic mathematical computational skills and distinguish uses of concepts in Calculus, Algebra and Applied Mathematics.
2. Demonstrate the ability to write mathematically rigorous proofs.
3. Demonstrate the ability to perform advanced mathematical computations.
4. Demonstrate a breadth and depth of knowledge in applied mathematics.

Core Curriculum Learning Outcomes:

1. Critical Thinking Skills
2. Communication Skills
3. Teamwork
4. Empirical and Quantitative Skills
5. Personal Responsibility
6. Social Responsibility

TEA Education Standards:

1. Number Concepts
2. Patterns and Algebra
3. Geometry and Measurement
4. Probability and Statistics
5. Mathematical Processes
6. Mathematical Perspectives
7. Mathematical Learning and Instruction
8. Mathematical Assessment

Major Course Requirements**Method of Determining Midterm and Final Course Grades**

Course Grade Categories	Description	Percentage
Minor Assessments	The average of activities done in and out of class with some of the lowest grades dropped	15%
Tests	The average of the three online tests	45%
Homework	The average of all homework assignments	15%
Attendance	The percentage of assignments turned in on time	5%
Final Exam	A comprehensive online test	20%
Total:		100%

Final Grade Calculation:

$$\text{Final Grade} = 0.15 \times \text{Minor Assessment Average} + 0.15 \times \text{Homework Average} + 0.05 \times \text{Attendance Percentage} + 0.45 \times \text{Test Average} + 0.20 \times \text{Final Exam Grade}$$

Grading Criteria and Conversion:

Your course grade will be awarded as follows:

- 90 – 100% A
 80 – 89% B
 70 – 79% C
 60 – 69% D
 59 – 0% F

Detailed Description of Major Categories:

Assignment Title or Grade Requirement	Description
Homework Assignments	Homework assignments will be done on paper and submitted to eCourses/Canvas to practice the concepts and skills.
Tests	Online tests will be given to measure knowledge of presented course material.

Final Exam	An online comprehensive test over the course.
Minor Assessments	Minor assessments are activities done which give quick feedback on a student's understanding of the concept(s) and skill(s) presented in class.
Attendance	Absences are accumulated beginning with the first day of class. Attendance will be determined by when a student does or turns in an assignment. The percentage of the assignments done on time will be the grade.

Course Procedures or Additional Instructor Policies

Attendance Policy:

*Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class. Students are strongly encouraged to let the instructor know the reason for the absence so the absence can be excused. **For an absence to be excused, the documentation for the absence must be verified and approved. Please send the documentation to emstoerke@pvamu.edu for approval.***

Technology Use: The use of cellular phones in this class is absolutely prohibited unless the instructor allows the use. *The use of various technologies is allowed and encouraged only in the class with instructor approval and for assignments outside of class. Students are strongly encouraged to make sure to understand the problem and the solution rather than just copy the solution from a source. Justification of the solution is required on assignments not found on MyMathLab. A student is allowed to use a calculator up to the TI 84 graphing calculator on a test, but is not allowed to use a TI 89, TI 92 or TI-Nspire. Any cellular phone and/or any other device that has access to the Internet and/or is capable of taking pictures is not allowed on tests.*

Submission of Assignments: Assignments and other resources will be distributed through eCourses/Canvas. Directions for accessing eCourses/Canvas can be obtained from the Office of Distance Learning. Homework assignments and activities will be submitted electronically. No assigned work will be accepted after the due date.

Exam Policy: There will be three major exams and a final exam. **Exams will be administered online and according to the schedule.** Students are strongly encouraged to show their work and to completely explain their answers to the questions on the test. **The final exam will be administered online and according to the schedule.** Once the exam begins, you may not leave the room. Cell phone is not allowed on the desk. No makeup exams will be allowed except under documented emergencies (See Student Handbook and description below). All exams, except the final exam, will be graded and returned to students within a week. A student cannot retake an exam. **A formula sheet containing complex formulae may be given by the instructor for an exam or final exam. A student is allowed to use a calculator up to the TI 84 graphing calculator on a test, but is not allowed to use a TI 89, TI 92 or TI-Nspire.** If you perform below your expectations or fail any test, please set up a conference with the instructor as soon as possible.

Make-up: An exam can be made up if the student has a valid excuse or emergency. Valid excuses include *documented* illness, school or business trips, or family crises. Without proper documentation, there will be no makeup exam. Written documentation after email notification to the instructor must be provided by a university official, doctor, police officer, justice of the peace, or coach. A student who will be representing the school at an event must notify the instructor of the absence before attending the event. **To take a Makeup test, the documentation must be verified and approved by the Department of Mathematics. The Makeup test will be given online. If granted a Makeup test, you have a period of three (3) class days to schedule your Makeup test. After that point, the grade becomes a zero.**

Communication Expectations: All emails will receive a response from the instructor within 48 hours. A student can send email anytime that is convenient for him/her, but the instructor will check her emails during the day

throughout the work-week (Monday through Thursday). The instructor will respond to emails during the work-week by the close of business (5:00 pm) on the day following her receipt of them. Emails that are received on Friday will be responded to by the close of business on the following Monday and on Saturday or Sunday will be responded to by the close of business on the following Tuesday.

PVAMU Academic Integrity Policy: Students are expected to follow the Academic Integrity Policy in the class. For more information, see the Student Handbook or eCourses.

Study Hints:

1. Attend class regularly.
2. Do the assignments.
3. The course outline below shows the concepts and skills covered for each week. If you miss a class, you are expected to find out which material was covered and to familiarize yourself with it. Please ask questions if you have any.
4. Form study groups with classmates.
5. Make use of office hours.
6. Make use of the Math Tutorial Lab in WR Banks, Room 303.
7. Study regularly instead of cramming for test.

Formatting Documents: Microsoft Word is the standard word processing tool used at PVAMU. If you are using other word processors, be sure to use the “save as” tool and save the document in either the Microsoft Word, Rich-Text, or plain text format.

Syllabus Disclaimer: It is the instructor’s right to modify the class schedule when necessary and cover course topics as he/she feels is necessary to meet the learning outcomes, therefore this syllabus is subject to change.

Student Academic Appeals Process: Authority and responsibility for assigning grades to students rest with the faculty. However, in those instances where students believe that miscommunication errors, or unfairness of any kind may have adversely affected the instructor’s assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Definition of Cheating and Plagiarism: Prairie View A&M University is dedicated to a high standard of academic integrity among its faculty and students. In becoming part of the Prairie View A&M University academic community, students are responsible for honesty and independent effort. Disciplinary action will be taken against any student who alone or with others engages in any act of academic fraud or deceit.

Calendar
Math 3003 Mathematics in Elementary Schools
Tentative Course Outline

Last day to withdraw with W: 7/20/2020

Week	Textbook Content	
1	Geometry	
2	Geometry, Measurement	Test #1 7/7/2020
3	Measurement	Test #2 7/16/2020
4	Statistics, Probability	
5	Probability, Financial Literacy	Test #3 6/18/2020
6	Financial Literacy	Final 8/4/2020

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Student Support and Success

John B. Coleman Library

The library and its partners have as their mission to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service and to support the University's core values of access and quality, diversity, leadership, relevance, and social responsibility through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. <https://www.pvamu.edu/library/>
Phone: 936-261-1500

University Tutoring Center

The Center offers tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Learning Curve is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library Rm. 307. Phone: 936-261-1561

The Student Academic Success Center

The Student Academic Success Center is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library Rm. 306. Phone: 936-261-1040

Writing Center

The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Students taking on-line courses or courses at the Northwest Houston Center or College of Nursing may consult remotely or by email. Location: Hilliard Hall Rm. 121. Phone: 936-261-3724

Student Counseling Services

The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and provides assistance to students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Owens-Franklin Health Center Rm. 226. Phone: 936-261-3564

Testing

The Department of Testing administers College Board CLEP examinations, the HESI A2 for pre-nursing majors, LSAT for law school applicants and MPRE for second-year law students, the Experiential Learning Portfolio option, the Texas Success Initiative (TSI) Assessment, which determines college readiness in the state, and exam proctoring, among other service such as SAT and ACT for high school students. Phone: 936-261-3627

Office of Disability Services

As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include: learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring of non-standardized test administrations, ASL interpreters, ALDs, digital recorders, livescribe, Kurtzweil, and a comprehensive referral network across campus and the broader community. Location: Evans Hall Rm. 317. Phone: 936-261-3585

Veteran Services

Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: May Hall Rm. 118. Phone: 936-261-3563

Office for Student Engagement

The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development and campus governance. Location: Memorial Student Center Rm. 221. Phone: 936-261-1340

Career Services

Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Evans Hall Rm. 217. Phone: 936-261-3570

University Rules and Procedures

University Mission Statement:

Prairie View A&M University is a state-assisted, public, comprehensive land grant institution of higher education. The university was designated in a 1984 amendment to the Texas Constitution as an "institution of the first class." It is dedicated to achieving excellence and relevance in teaching, research, and service. It seeks to invest in programs and services that address issues and challenges affecting the diverse ethnic and socioeconomic population of Texas and the larger society including the global arena. The university seeks to provide a high quality educational experience for students who, upon completion of bachelors, masters, or doctorate degrees, possess self-sufficiency and professional competence. The experience is imbued by the institution's values including, but not limited to, access and quality, accountability, diversity, leadership, relevance, and social responsibility.

Disability Statement (Also See Student Handbook):

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Evans Hall, Room 317, or call 936-261-3585/3.

Academic Misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of Academic Dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic Misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual Misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Title IX Statement

Prairie View A&M University (PVAMU) is committed to supporting students and complying with the Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of sex- or gender-based discrimination, including sexual harassment, sexual assault or attempted sexual assault, we encourage you to report it. While you may talk to a faculty member about an incident of misconduct, the faculty member must report the basic facts of your experience to Ms. Alexia Taylor, PVAMU's Title IX Coordinator. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Title IX Coordinator is designated to handle inquiries regarding non-discrimination policies and can assist you with understanding your options and connect you with on- and off-campus resources. The Title IX Coordinator can be reached by phone at 936-261-2123 or in Suite 013 in the A.I. Thomas Administration Building.

Class Attendance Policy (See Catalog for Full Attendance Policy)

Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet.

Excessive absenteeism may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class during regular semesters and summer terms.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

TECHNICAL CONSIDERATIONS**Minimum Recommended Hardware and Software:**

- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome or Firefox

Note: Be sure to enable Java & pop-ups in the Web browser preferences

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)

- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette):

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

Technical Support:

Students should go to <https://mypassword.pvamu.edu/> if they have password issues. The page will provide instructions for resetting passwords along with whom to contact if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services at 936-261-3283

Communication Expectations and Standards:

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it/they should be copied and pasted to the discussion board.