Mathematics for Teachers I (MATH 1351-2A3)

CREDIT

3 Semester Credit Hours (3 hours lecture)

MODE OF INSTRUCTION

Online (8-Weeks Course)

PREREQUISITE/CO-REQUISITE:

• MATH 1314 or MATH 1414 College Algebra

• Complete the Online Orientation and answer yes to 7+ questions on the Online Learner SelfAssessment:

http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx

COURSE DESCRIPTION

This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability and statistics with an emphasis on problem solving and critical thinking.

COURSE OBJECTIVES

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

1. Apply fundamental terms of geometry such as points, lines, and planes to describe two and three-dimensional figures.
2. Make and test conjectures about figures and geometric relationships.
3. Use a variety of methods to identify and justify congruency and similarity of geometric objects.
4. Perform geometric transformations.
5. Demonstrate fundamental probability techniques and apply those techniques to solve problems.
6. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
7. Recognize, examine, and utilize the basic principles of describing and presenting data.
8. Perform measurement processes and explain the concept of a unit of measurement.
9. Develop and use formulas for the perimeter, area, and volume for a variety of figures.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Widad Abedelwahab
Email:	whabedelwahab@lit.edu
Office Phone:	409-241-7873
Office Location:	Building TA5 and Room 106
Office Hours:	Virtual office hours by appointment. During the semester I will be creating virtual meetings (optional). I will send a message through blackboard.

We will be communicating with announcements and messages through Blackboard.
2. Do NOT use your personal e-mail to contact me. I will not respond to any personal e-mail.
3. I will check my messages Monday through Friday (not on weekends).

Approved: Initials/date

4. I will try to respond to you within 24 hours but please do not leave things for the last minute!
5. You must log in to black to check for new messages, announcements, and work on the assignments.
6. I will be asking you to respond to messages with "I understand"

REQUIRED TEXTBOOK AND MATERIALS
1. MyMathLab stand alone. (More information on blackboard)
2. A basic six-function calculator (+, -, ÷, ×, ±, √, ∕)

ATTENDANCE POLICY
Blackboard logon and access the course every day.

DROP POLICY
If you wish to drop a course, you are responsible for initiating and completing the drop process.
If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

Course Requirements
1. The student must purchase all required course materials.
2. The student will be expected to have access to the Internet and a computer.
3. The student will logon and access the course a minimum of eight times per week.
4. Students are required to complete the assignments by the due dates. The due dates under tests and assignments calendar on blackboard.
5. Additional course requirements as defined by the individual course instructor.

AI Statement
Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI / ChatGPT in their courses.

COURSE CALENDAR

Week	TOPIC	ASSIGNMENTS (Due on this Date) All the due dates under the assignments calendar on blackboard (Please print it) and on MML
Week 1	Course introduction and policies. The first week assignments Chapter 9: Section 9.1 – 9.2	Work on the first week assignments. Print the assignments calendar from blackboard. More information on blackboard
Week 2	Chapter 9: Section: 9.3 – 9.4 Test1 (Chapter 9)	Watch lecture videos and assignments on MML. Take test 1 on MML
Week 3	Chapter 10 Section; 10.1 – 10.4 Test # 2 (Chapter 10)	Watch lecture videos and assignments on MML. Test 2 on MML
Week 4	Section: Chapter 11 Section: 11.1 – 11.4 Test # 3 (Chapter 11)	Watch lecture videos and assignments on MML. Take Test 3 on MML
Week 5	Chapter 12 Section: 12.1 – 12.4 Test # 4(Chapter 12)	Watch the lecture videos and do the assignments on MML Take Test 4 on MML
Week 6	Chapter 13 Section: 13.1 – 13.5 Test # 5 (Chapter 1)	Watch the lecture videos and do the assignments on MML Test 5 on MML
Week 7	Chapter 14 Section: 14.1 – 14.3 Test #6(Chapter 14)	Watch the lecture videos and do the assignments on MML. Take Test 6 on MML
Week 8	Discussion Test NAEP Test	

ADDITIONAL COURSE POLICIES/INFORMATION On blackboard

A. **Chapter 9: Probability**
1. **Determining Probabilities**
2. **Multistage Experiments and Modeling Games**
3. **Simulations and Applications in Probability**
4. **Counting Techniques**

B. **Chapter 10: Data Analysis/ Statistics: An Introduction**
1. **Designing Experiments/Collecting Data**
2. **Displaying Data: Part I**
3. **Displaying Data: Part II**
4. **Measures of Central Tendency and Variation**

C. **Chapter 11: Introductory Geometry**
1. **Basic Notions**
2. **Curves, Polygons, and Symmetry**
3. **More About Angles**
4. **Geometry in Three Dimensions**

D. **Chapter 12: Congruence and Similarity with Constructions**
1. **Congruence Through Constructions**
2. **Additional Congruence Theorem**
3. **Additional Constructions**
4. **Similar Triangles and Other Similar Figures**

E. **Chapter 13: Area, Pythagorean Theorem, and Volume**
1. **Linear Measure**
2. **Areas of Polygons and Circles**
3. **The Pythagorean Theorem, Distance Formula, and Equation of a Circle**
4. **Surface Area**
5. **Volume and Mass**

F. **Chapter 14: Transformation**
1. **Transformations, Rotations, and Tessellations**
2. **Reflections and Glide Reflections**

Additional Topics by the Instructor.

COURSE EVALUATION

Final grades will be calculated according to the following criteria:
• Tests 60%

• Assignments on MML 40%

GRADE SCALE

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

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimumcomputer-requirements. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at Special Populations - Lamar Institute of Technology (lit.edu).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

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STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.