CONTACT INFORMATION
Charles Kilgore
D259
281-756-3716
ckilgore@alvincollege.edu (preferred method of communication)
*Allow 48 hours for a response to any message left from Sunday – Thursday. Otherwise, I will respond the following Monday.

OFFICE HOURS
TBA

COURSE MATERIALS


Optional Purchase: MML/MSL Student Access Code

SUPPORT SERVICES:

- **Cyberlink Computer Lab**: Features two dozen computers with Internet access and software programs needed for classes, including specialized software.
  Cyberlink Lab Location: Building A, 1st floor, Room A-173
  Cyberlink Lab Hours:
    - Monday and Tuesday 8:00 am to 7 pm
    - Wednesday to Friday 8:00 am to 5 pm

- **Learning Lab**: Tutoring is offered to students enrolled in MATH 1324 during posted hours in the Learning Lab. The Library and Learning Lab have a copy of the Instructor Solutions Manual (fully worked solutions to all textbook exercises).
  Learning Lab Location: Building A, 2nd floor, Room A-210 (inside Library)
  Learning Lab Hours:
    - Monday – Thursday 8:00 am – 9:00 pm
    - Friday 8:00 am – 4:00 pm

- **Library**: Building A, 2nd floor
  Hours: 7:30 am – 9:00 pm M – Th and 7:30 am – 5:00 pm Friday
COURSE INFORMATION

Description: This course covers functions, interest, annuities, systems of linear equations, matrices, linear inequalities, linear programming, simplex method, set theory, counting techniques, combinatorics, and probability with an emphasis on applications to business, economics, life and social sciences.

Prerequisite: A, B, or C in MATH 1314

Objectives:

- Set up and solve interest applications
- Set up and solve applications involving annuities
- Solve systems of equations using matrix methods.
- Perform basic arithmetic operations of matrices.
- Solve applications involving basic matrix operations.
- Solve linear programming problems.
- Set up and solve applications using counting techniques
- Use set operations to compute probabilities
- Compute probabilities using various formulas
- Compute odds for and odds against an event

Outline:

Chapter 2: Functions and Graphs
  2.1 Functions
  2.2 Elementary Functions: Graphs and Transformations
  2.3 Quadratic Functions
  2.4 Polynomial and Rational Functions
  2.5 Exponential Functions
  2.6 Logarithmic Functions

Chapter 3: Mathematics of Finance
  3.1 Simple Interest
  3.2 Compound and Continuous Compound Interest
  3.3 Future Value of an Annuity; Sinking Funds
  3.4 Present Value of an Annuity; Amortization

Chapter 4: Systems of Linear Equations; Matrices
  4.1 Review: Systems of Linear Equations in Two Variables
  4.2 Systems of Linear Equations and Augmented Matrices
  4.3 Gauss-Jordan Elimination
  4.4 Matrices: Basic Operations
  4.5 Inverse of a Square Matrix
4.6 Matrix Equations and Systems of Linear Equations

Chapter 5: Linear Inequalities and Linear Programming
5.1 Linear Inequalities in Two Variables
5.2 Systems of Linear Inequalities in Two Variables
5.3 Linear Programming in Two Dimensions: A Geometric Approach

Chapter 6: Linear Programming: The Simplex Method
6.1 A Geometric Introduction to the Simplex Method
6.2 The Simplex Method: Maximization with Problem Constraints of the Form <=
6.3 The Dual Problem: Minimization with Problem Constraints of the Form >=

Chapter 7: Logic, Sets, and Counting
7.2 Sets
7.3 Basic Counting Principles
7.4 Permutations and Combinations

Chapter 8: Probability
8.1 Sample Spaces, Events, and Probability
8.2 Union, Intersection, and Complement of Events; Odds
8.3 Conditional Probability, Intersection, and Independence
8.4 Bayes’ Formula
8.5 Random Variable, Probability Distribution, and Expected Value

Chapter 9: Markov Chains (optional)
9.1 Properties of Markov Chains
9.2 Regular Markov Chains
9.3 Absorbing Markov Chains

Methods of Evaluation
1. **Homework:** I will assign homework for each section covered in class. This homework can be done via textbook or MML. The choice is yours. I will not grade homework done using the textbook and I will not count any homework scores on MML. Homework is treated as prep for the quizzes and exams.

2. **Quizzes:** Most lecture days, there will be a quiz over previous material. On lecture days after an exam, there will be no quiz. Your lowest three quiz grades will be dropped. If you miss a quiz, your will receive a zero for that quiz and will not have the opportunity to “make-up” that quiz. The average of the remaining quizzes will be 10% of your course average.

3. **Exams:** You will have three “hourly” exams that cover the following material. Each exam is 15% of your course average. You will be given at least a two week notice for exam dates. If you miss an exam, you will have the opportunity to complete that exam according to the following:

   1. If exam is taken on original exam date, then no reduction is taken.
   2. If exam is taken one lecture day from original date taken, then you will receive a 5 point reduction in your grade.
3. If exam is taken two lecture days from the original exam date, then you will receive a 10 point reduction in your grade.
4. If exam is taken three lecture days from the original exam date, then you will receive a 20 point reduction in your grade.
5. No opportunity for completion is given if student attempts to complete the exam four or more days from the original exam date. You will be given a score of zero.

Exam 1: Chapters 2 and 3
Exam 2: Chapters 4, 5 and 6
Exam 3: Chapters 7 and 8

4. **Comprehensive Final Exam:** The final exam will be a comprehensive, multiple-choice exam and will count for 30% of the course average.

5. **End of Course Assessment Exam:** A departmental assessment exam will be administered at the end of the semester to all pre-calculus students. The exam will be 5% of the course grade.

6. **Core Writing Assignment:** Details will be given in class. This assignment is 5% of your course grade.

7. **Assessment of Empirical and Quantitative Reasoning:** Details will be given in class. This assessment is 5% of your course grade.

**Grading System**

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>0%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Exam 1</td>
<td>15%</td>
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<td>Exam 2</td>
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<td>Writing</td>
<td>5%</td>
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<tr>
<td>EQR</td>
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**Attendance**  Regular attendance in class is expected. If an absence is unavoidable, the student is responsible for completing all work missed during the absence. Any work missed and not completed may affect the grade of the student regardless of the reason for the absence. It should be noted that ceasing to attend class does not terminate enrollment. Therefore, a student who ceases to attend class without officially withdrawing from that class may receive a failing grade.

**Classroom Behavior**  It is expected that students will behave in a mature and courteous manner. Disruptive behavior during class will not be tolerated. Students are expected to be attentive, take notes, ask pertinent questions, arrive on time, and not leave until the class is dismissed. Conflicts which arise between the scheduled class time and the student’s personal schedule must be resolved by the student.
Camcorders Camcorders and any other video recording devices are prohibited in the classroom. Audio may be allowed ONLY WITH THE PERMISSION OF THE INSTRUCTOR.

Cellular phones Cell phones are not to be used and are not to ring during the class. Cell phones are not to be out during tests. If there are special circumstances, arrangements must be made with the instructor.

AMERICANS WITH DISABILITIES ACT ACC complies with ADA and 504 Federal guidelines by affording equal access to individuals who are seeking an education. Students who have a disability and would like classroom accommodations must register with the Office of Disability Services, A 136, (281)756-3533. Instructors are not able to provide accommodations until the proper process has been followed.

CODE OF ACADEMIC INTEGRITY AND HONESTY Alvin Community College students are members of an institution dedicated to the pursuit of knowledge through a formalized program of instruction and learning. At the heart of this endeavor, lie the core values of academic integrity which include honesty, truth, and freedom from lies and fraud. Because personal integrity is important in all aspects of life, students at Alvin Community College are expected to conduct themselves with honesty and integrity both in and out of the classroom. Incidents of academic dishonesty will not be tolerated and students guilty of such conduct are subject to severe disciplinary measures.
Welcome Students!

MyMathLab is an interactive website where you can:
- Self-test & work through practice exercises with step-by-step help to improve your math skills.
- Study more efficiently with a personalized study plan and exercises that match your book.
- Get help when YOU need it. MyMathLab includes multimedia learning aids, videos, animations, and live tutorial help.

Before You Begin:
To register for MyMathLab, you need:
- A MyMathLab student access code (packaged with your new text, standalone at your bookstore, or available for purchase with a major credit card at www.pearsonmylab.com)
- Your instructors’ Course ID:_____kilgore27995____________________
- A valid email address

Student Registration:
- Enter www.pearsonmylab.com in your web browser.
- Under Register, click Student.
- Enter your Course ID exactly as provided by your instructor and click Continue. Your course information appears on the next page. If it does not look correct, contact your instructor to verify the Course ID.
- Sign in or follow the instructions to create an account. Use an email address that you check and, if possible, use that same email address for your username. Read and accept the License Agreement and Privacy Policy.
- Click Access Code. Enter your Access Code in the boxes and click Next. If you do not have an access code and want to pay by credit card or PayPal, select the access level you want and follow the instructions. You can also get temporary access without payment for 17 days..

Once your registration is complete, a Confirmation page appears. You will also receive this information by email. Make sure you print the Confirmation page as your receipt. Remember to write down your username and password. You are now ready to access your resources!

Signing In:
- Go to www.pearsonmylab.com and click Sign in.
- Enter your username and password and click Sign In.
- On the left, click the name of your course.

The first time you enter your course from your own computer and anytime you use a new computer, click the Installation Wizard or Browser Check on the Announcements page. After completing the installation process and closing the wizard, you will be on your course home page and ready to explore your MyMathLab resources!

Need help?
Contact Product Support at http://www.mymathlab.com/student-support for live CHAT, email, or phone support.