Term: FALL 2019 8-Week Course
Course: MATH-1324-47310
Course Dates: 8/26/2019 – 10/16/2019
Class Location: C280

Instructor: David McMann

Phone:

Email: dmcmann@dcccd.edu

Office & Office Hours: I will answer emails within 24 hours. Please put course and section in the subject line

STEM Division: C-Building, Room 202 | 972-860-7297

Course Drop Date: 10-3-2019

Certification Date: 8-31-2019

Disclaimer: The instructor reserves the right to amend this syllabus as necessary.


Course Description:
The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. (3 Lec.)

Prerequisites: College level ready in Mathematics algebra-based level.

Textbook and Other Course Materials:
  Enroll in MML with the ID  mcmann31987
- My Math Lab - Microsoft Windows 7 and 8 users should use one of the following browsers with MyMathLab courses--Chrome, Firefox or Internet Explorer 10 and 9. Click here for other system requirements.

Student Learning Outcomes:
Upon successful completion of this course, students will:
1. Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems.
2. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.
3. Apply basic matrix operations, including linear programming methods, to solve application problems.
4. Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems.
5. Apply matrix skills and probability analyses to model applications to solve real-world problems.

Core Objectives:
MATH 1324 develops the following Core Objectives:
1. **Critical Thinking** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. **Communication** - to include effective development, interpretation and expression of ideas through written and visual communication.
3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Core Objective Development Statements:
MATH 1324 develops **Critical Thinking, Communication, and Empirical and Quantitative Skills** by requiring students to solve and analyze applications of various functions to management, economics, and business

Grading Policy: There will be 6 grades only. There are no extra credit tests or assignments.

- 20% - Math Lab Homework Average
- 45% - Tests (There are 3 tests each worth 15%)
- 30% - Final Exam
- 5% - Participation

Grading Rationale: Course Letter Grades are then assigned according to the following scale:
A: [90, 100], B: [80, 90), C: [70, 80), D: [60, 70), F: [0, 60)

Policy on Missed Tests and Assignments: There are no make-up tests. The grade assigned for a missed test is zero. The exam grade replaces the lowest test grade if the exam grade is higher than the lowest test grade.

ADDITIONAL RESOURCES
The Math Spot ([https://www.eastfieldcollege.edu/services/academic-support/tutoring/pages/default.aspx](https://www.eastfieldcollege.edu/services/academic-support/tutoring/pages/default.aspx)) provides tutoring in Mathematics and Developmental Mathematics. Students are encouraged to take advantage of this service for additional help in their course work. The Math Spot is located in room L200, and the phone number is 972-860-7174. Visit the link above for more information on tutors, hours of operation and policies.

COURSE OUTLINE:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Sections</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch. 1</td>
<td>1.1, 1.2</td>
<td>Linear Equations and Inequalities, Graphs of lines.</td>
</tr>
<tr>
<td>Ch. 2</td>
<td>2.1 - 2.6(All Sections)</td>
<td>Elementary, Quadratic, Exponential and Logarithmic Functions.</td>
</tr>
<tr>
<td>Ch. 3</td>
<td>3.1 - 3.4(All Sections)</td>
<td>Simple interest, Compound interest, Future and Present value problems.</td>
</tr>
<tr>
<td>Ch. 4</td>
<td>4.1 – 4.6</td>
<td>Systems of linear equations, Matrix operations, Inverse of a Matrix and Matrix Equations.</td>
</tr>
<tr>
<td>Ch. 5</td>
<td>5.1 - 5.3</td>
<td>Inequalities in two variables, systems of</td>
</tr>
<tr>
<td>Chapter</td>
<td>Sections</td>
<td>Topics</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>--------</td>
</tr>
<tr>
<td>6 (optional)</td>
<td>6.1, 6.2</td>
<td>Inequalities and Linear Programming.</td>
</tr>
<tr>
<td>7</td>
<td>7.2 – 7.4</td>
<td>Simplex Method.</td>
</tr>
<tr>
<td>8</td>
<td>8.1 – 8.3</td>
<td>Sets, Counting Principle, Permutations and Combinations.</td>
</tr>
</tbody>
</table>