Term: FALL 2019 - 8 Week Course  
Course: MATH-1314-48310  
Course Dates: 10/22/2019 – 12/12/2019  
Class Location: C280

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>David McMann</th>
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<tbody>
<tr>
<td>Phone:</td>
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<tr>
<td>Email:</td>
<td><a href="mailto:dmcmann@dcccd.edu">dmcmann@dcccd.edu</a></td>
</tr>
<tr>
<td>Office &amp; Office Hours</td>
<td>I will answer emails within 24 hours. Please put your course name and section in the subject line.</td>
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**STEM Division:** C-Building, Room 202 | 972-860-7297

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<thead>
<tr>
<th>Course Drop Date</th>
<th>11-29-2019</th>
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<tbody>
<tr>
<td>Certification Date</td>
<td>10-28-2019</td>
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<td>Disclaimer:</td>
<td>The instructor reserves the right to amend this syllabus as necessary.</td>
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**Course Description:**
In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. This course is the prerequisite for MATH 1316. This course is cross-listed as Math 1414. The student may register for either Math 1314 or Math 1414, but may receive credit for only one of the two. (3 or 4 Lec.)

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

**Textbook and Other Course Materials:**
  OR
- 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.
Students are required to have access to a TI-83 or TI-84 calculator. Graphing calculators may not be allowed during some examinations.

Student Learning Outcomes:
Upon successful completion of this course, students will:
1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices.

Core Objectives:
MATH 1314 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 1314 develops Critical Thinking, Communication, and Empirical and Quantitative Skills by requiring students to solve and analyze applications of various functions and systems of equations.

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 for a missed test is zero. The exam grade will replace the lowest test grade if the exam grade is higher than the lowest test grade.

Final Exam:
A comprehensive, departmental final examination, which will represent at least 25% of the class grade, will be administered in all Math 1314 classes.

Attendance Policy:
You are expected to regularly attend all classes in which you are enrolled. Students have the responsibility to attend class and to consult with the instructor when an absence occurs.

Standard of Conduct/Classroom Etiquette:
No food, drinks or tobacco products are allowed in Eastfield College classrooms. However; if your class is in a non-lab classroom your instructor may allow for food or drink.

ADDITIONAL RESOURCES
The **Math Tutoring Center** provides **FREE TUTORING** to **current Eastfield College students** enrolled in a **Mathematics** or **Developmental Mathematics** course. Students are encouraged to take advantage of this free resource for additional help in their course work. Please visit the Math Tutoring Center located in the Learning Commons in L200, check eastfieldcollege.edu/tutoring, or call 972-860-7174 for more information. In addition, TI-84 calculators are available for daily check-out in the library. Click on the following website for more information: [https://www.eastfieldcollege.edu/services/academic-support/tutoring/pages/default.aspx](https://www.eastfieldcollege.edu/services/academic-support/tutoring/pages/default.aspx)

**Learning Goals:**
This is a mathematics course in which you will learn to use, understand, and communicate about mathematical information. The course has five goals:

- **Communication goal:** You will interpret and communicate quantitative information and mathematical concepts using language appropriate to the context and intended audience.
- **Problem Solving goal:** You will make sense of problems, develop strategies to find solutions, and persevere in solving them.
- **Reasoning goal:** You will reason, model, and make decisions with mathematical and quantitative information.
- **Evaluation goal:** You will critique and evaluate quantitative arguments that utilize mathematical and quantitative information.
- **Technology goal:** You will use appropriate technology in a given context.

**COURSE OUTLINE:**

<table>
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<tr>
<th>Sections</th>
<th>Topics</th>
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<tr>
<td>P1, 1.5-1.7, 2.1-2.2, 2.5-2.8</td>
<td>Real number system, Equations, Relations and Functions; Circles</td>
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<tr>
<td>3.1-3.6</td>
<td>Polynomial and Rational functions; Theory of Functions</td>
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<tr>
<td>4.1-4.5</td>
<td>Exponential, Logarithmic and Special functions</td>
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<tr>
<td>6.3-6.5, 8.1-8.3, 8.5</td>
<td>Progressions, The Binomial Theorem, Matrices, Determinants, mathematical reasoning skills, Sequences, Series and Applications</td>
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Revised: 06/21/19