STEM Division

Term: (Fall 2019) 1st 8-Week Course
Course: CoReq DMAT-0315-47010/ MATH1314-48010
Course Dates: 08/36/2019 – 10/16/2019
Class Location: N-236 Lecture

Instructor: Oraldo “Buddy” Saucedo
Phone: (972)860-7351 – PLEASE DO NOT LEAVE a MESSAGE … EMAIL ME!!
Email: buddysaucedo@dcccd.edu
Office & Office Hours: Office N-206 … Hours Mon-Thurs 12:30-01:30pm, Mon & Tues 01:30-02:30 Or By Appointment – Email Me Your Questions

Instructor Contact Information:
My preferred method of contact is by eMail – buddysaucedo@dcccd.edu. Please keep in mind that it is against the law (FERPA) for me to discuss grades with you via phone or email. See me in person if you need to discuss your personal academic progress or grades in this course.

Course Description:
This course is a study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. (3 Lec.)

Prerequisite: An appropriate assessment test score or DMAT 0305.
**MATH 1314 COURSE DESCRIPTION:**

This course is an in-depth study and applications of polynomial, rational, radical, exponential, logarithmic, absolute value and piecewise-defined functions, and systems of equations using matrices. Also covered are the graphing calculator, non-linear inequalities, sequences and series, circles, the Binomial Theorem and a review of the classification of the real number system. MATH 1314 is the prerequisite for MATH 1316. The corequisite for this course is **DMAT 0315-47010.** (3 Lec.)

**Corequisite/Concurrent**
This is a corequisite course and requires continuous concurrent enrollment with MATH 1314.

**Textbook and Other Course Materials (YOU WILL PURCHASE COURSE MATERIALS IN DMAT 0315 AND CAN USE THESE MATERIALS IN MATH 1314):**


- **MyMathLab:** (YOU WILL PURCHASE ACCESS TO MYMATHLAB IN DMAT 0315 AND CAN USE THE SAME CODE FOR MATH 1314). Please note that in this section of DMAT 0315, MyMathLab access is required. An ebook is included with your account. MyMathLab access is not included with the purchase of a used book, and may not be included with the purchase of a new book. Therefore, use caution when purchasing your course materials. Microsoft Windows 7 and 8 users should use one of the following browsers with MyMathLab courses--Chrome, Firefox or Internet Explorer 10 and 9. For other system requirements go to http://www.pearsonmylabandmastering.com/northamerica/system-requirements/

- **Calculator:** Students are required to have access to a TI-83 or TI-84 calculator. Graphing calculators may not be allowed during some examinations.

**Website:** [www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com)  
Course ID information will be given to you by your Instructor

**MyMathLab Technical Support:**
- It is the responsibility of the student to contact MyMathLab Technical Support to resolve any technical issues. Please visit the following website for assistance:
- [https://www.pearsonmylabandmastering.com/northamerica/mymathlab/students/support/technical-support/index.html](https://www.pearsonmylabandmastering.com/northamerica/mymathlab/students/support/technical-support/index.html)

**Student Learning Outcomes:**

Upon successful completion of this course, students will:
1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines
<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 – 100%</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89%</td>
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<tr>
<td>C</td>
<td>70 – 79%</td>
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<tr>
<td>D</td>
<td>60 – 69%</td>
</tr>
<tr>
<td>F</td>
<td>0 – 59%</td>
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</tbody>
</table>

**GRADING POLICY**

Your grade will be determined as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>15%</td>
<td>Online - Homework</td>
</tr>
<tr>
<td>10%</td>
<td>Online – Chapter Reviews</td>
</tr>
<tr>
<td>15%</td>
<td>Online – Chapter Tests</td>
</tr>
<tr>
<td>15%</td>
<td>In Class - Exam I</td>
</tr>
<tr>
<td>20%</td>
<td>In Class - Exam II</td>
</tr>
<tr>
<td>25%</td>
<td>In Class - Final Exam</td>
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**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.

**Policy on Missed Tests and Assignments:** ALL MyMathLab (MML) Assignments are expected to be done on time by their Assigned Due Dates. However, All Late Work within MML will be given a Late Penalty of 30% for all MML Assignments that are Past Due … The Last Day to submit Late MML Assignments will be a date prior to the Final Exam. All Dates for In-Class Exams will be given to you during Class time. You are responsible for any assignment that are due in your absence and any that are missed will be given a Penalty Percentage.

**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. **There will be a 2 point deduction off the Final Grade Average for each absence beyond the allowed 2 weeks of excused or unexcused absences**

(If you are an Online Student, YOU DO HAVE TO PARTICIPATE Several times a week in your course to be SUCCESSFUL.)

**Standard of Conduct**
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.

**Classroom Etiquette:**
Electronic Devices including, but not limited to **cell phones** of all types, **pagers, calculators, PDA’s, imaging devices, two-way radios, CD players, DVD players, IPODS**, and all other related devices must be stored out of sight and turned off while in the classroom. Violation of this rule may include a grade of “F” in the course and/or expulsion from the class.
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

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 COVERAGE:

<table>
<thead>
<tr>
<th>Sections</th>
<th>Topics</th>
</tr>
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<tbody>
<tr>
<td>R1 – R7; 1.1 – 1.2, 1.4-1.6</td>
<td>The Set of Real Numbers; Operations with Real Numbers; Exponential Notation and Order of Operations; Introduction to Algebraic Expressions; Equivalent Algebraic Expressions; Simplifying Algebraic Expressions; Properties of Exponents and Scientific Notation; Solving Equations; Formulas and Applications; Sets; Inequalities; Interval Notation; Intersections and Unions; Compound Inequalities; Absolute-Value Equations and Inequalities</td>
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<tr>
<td>2.1 – 2.7; 3.1 – 3.4, 3.7</td>
<td>Graphs of Equations and Functions; Finding Domain and Range; The Algebra of Functions; Linear Functions: Graphs and Slope; Finding Equations of Lines; Applications; Systems of Equations in Two Variables; Solving systems of Equations by Substitution and Elimination; Applied Problems: Two Equations; Systems of Inequalities in Two variables</td>
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<td>10.1 – 10.4</td>
<td>Matrices, Matrix Operations, Inverse of Matrices, Determinants and Cramer's Rule</td>
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<tr>
<td>4.1 – 4.6, 4.8; 5.1 – 5.5</td>
<td>Introduction to Polynomials and Polynomial Functions; Multiplication of Polynomials; Introduction to Factoring; Factoring Trinomials and Special Factoring; Applications of Polynomial Equations and Functions: The Principle of Zero Product; Rational Expressions and Functions: Multiplying, Dividing, and Simplifying; LCMs, LCDs, Addition, and Subtraction of rational expressions; Division of Polynomials; Complex Rational Expressions; Solving Radical Equations</td>
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<tr>
<td>6.1 – 6.8</td>
<td>Radical Expressions and Functions; Rational Numbers as Exponents; Simplifying Radical Expressions, Addition, Subtraction, Multiplication and Division of Radical Expressions; Solving Radical Equations; Applications Involving Powers and Roots: Pythagorean Theorem; Increasing, Decreasing, and Piecewise Functions</td>
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<tr>
<td>7.1 – 7.5; 8.1 – 8.6</td>
<td>Symmetry; Transformations; The Complex Numbers; Quadratic Equations, Functions, Zeros, and Models; Analyzing Graphs of Quadratic Functions; Polynomial Functions and Models; Graphing Polynomial Functions; Polynomial Division; The Remainder Theorem and the Factor Theorem; Theorems about Zeros of Polynomial Functions; Rational Functions; Polynomial and Rational Inequalities</td>
</tr>
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If you require assistance with installing plug-ins or configuring your computer, you can contact Pearson Education's Product Support team as follows:

**Call 1-800-677-6337**

Monday - Friday, 8 AM to 8 PM Eastern time (US and Canada)
Sunday, 5 PM to 12 AM Eastern time (US and Canada) There is also a 24 hour website support for **LIVE CHAT**:

http://mymathlab.com/contactus_stu.html

**SYLLABUS REVISION:**
The guideline in this syllabus may be changed, deleted, or amended any time by the instructor. The attached course outline is intended as an aid in helping you know your responsibilities for the semester. It is possible that some changes in the course outline or class policies will be made during the semester. Any changes that are made to the class policies or course outline will be announced in class.

Last Revised: 08/21/2019