STEM Division

MATH 1316-47311 (Fast Track & Blended), 3 Credit Hours
Plane Trigonometry
Fall 1/2019 Fast Track (8 Weeks) Blended Course

Classes are Tuesdays and Thursdays from 8/26/2019 to 10/16/2019
Classes meet 9:00 a.m. to 10:50 a.m.
Room C305

Instructor: Dr. Timothy Lo

Contact Information:
Office: C306
Office Hours: MTWR 6:45am-7:45am, others by appointment
Phone: (972) 860-7675
Email Address: timothylo@dcccd.edu

Prerequisites:
MATH 1314 or MATH 1414 or equivalent.

Course Description: In depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates, and parametric equations may be included. (3 Lec.)

Student Learning Outcomes:
Upon successful completion of this course, students will:
1. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
2. Graph trigonometric functions and their transformations.
3. Prove trigonometric identities.
4. Solve trigonometric equations.
5. Solve right and oblique triangles.
6. Use the concepts of trigonometry to solve applications.

Core Objectives:
MATH 1316 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 1316 develops **Critical Thinking, Communication**, and **Empirical and Quantitative Skills** by requiring students to solve and analyze applications of trig functions and their graphs.

**Textbook and Other Course Materials:**
- At least a scientific calculator is required for this course, HOWEVER, it is **highly recommended** to use a graphing calculator (TI-83 or TI-84)
- Microsoft Windows 7 and 8 users should use one of the following browsers with MyMathLab courses-- Chrome, Firefox or Microsoft Edge. Click [here](#) for other system requirements.
- If you use mymathlab, the course ID is **lo94932**. This requires you to purchase a license code from Prentice Hall.

**Grading Policy:**

Your course grade will be based on three exams, each being 15% of the total grade, homework of 15% and a final exam that will be 40% of the total grade. No notes, books, cell phones or any electronic devices are allowed during exam. During the exam, if you exit the classroom, you may not return to continue the exam. There is no makeup to any exam unless proper excuse is made before the exam. Exam dates will be announced in class. Students should purchase scantrons from the campus book store (Form # 882-E). If you use calculator, it must be from a standalone unit such as TI-84, etc. You are not allowed to use any calculator from any cell phone or other devices during exam. Homework assignments and their due dates will be provided through eCampus and must be submitted using a scantron.

**Grading Rationale:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
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<tr>
<td>70-79</td>
<td>C</td>
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<tr>
<td>60-69</td>
<td>D</td>
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<tr>
<td>0-59</td>
<td>F</td>
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**Policy on Missed Tests and Assignments:** Makeup Exams will not be given. Late assignments (if any) will not be accepted.

**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.

(2004-2006 Dallas County Community College District Catalog, page 58) Students are expected to attend regularly all classes in which they are enrolled. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. Instructors are responsible for describing attendance policies and procedures. If you are unable to complete a course (or courses) in which you are enrolled, it is your responsibility to withdraw from the course by the appropriate date. If you do not withdraw, you will receive a performance grade, usually a grade of “F”.

Students who are absent from class for the observance of a religious holiday may take an examination or complete an assignment scheduled for that day within a reasonable time after the absence, if not later that the 15th day of the
semester, the student notified the instructor(s) that the student would be absent for a religious holiday. Sec. 51.511 TX Educ. Code.

Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

If a student is unable to complete a course (or courses) in which he/she is registered, it is the responsibility of the student to withdraw from the course by the appropriate date. (The date is published in the academic calendar each year and in each semester’s class schedule). If a student does not withdraw, he/she will receive a performance grade, usually a grade of “F”.

**Drop Date:**
Last date to drop with a grade of “W” is 10/3/2019.

**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.

**INSTITUTIONAL POLICY AND SERVICES:**
Institutional Policies relating to this course can be accessed from the following link: [https://www.eastfieldcollege.edu/syllabipolicies](https://www.eastfieldcollege.edu/syllabipolicies)

**Course Outline:**

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<thead>
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<th>Chapter</th>
<th>Sections</th>
<th>Topics</th>
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</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>1.1 – 1.5</td>
<td>Angles, Triangles, Trigonometric Functions, Reference Angles, Trigonometric Identities</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>2.1 – 2.3</td>
<td>Right Triangle Trigonometry</td>
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<tr>
<td>Chapter 3</td>
<td>3.1 – 3.4</td>
<td>Radian Measure, Arc Length Area of a Circular Sector, Unit Circle, Linear and Angular Speed</td>
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<tr>
<td>Chapter 4</td>
<td>4.1- 4.3</td>
<td>Graphs of Trigonometric Functions</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>5.1 – 5.4</td>
<td>Trigonometric Identities, Sum/Difference, Double Angle, Half Angle, Product-to-Sum and Sum-to-Product</td>
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<tr>
<td>Chapter 6</td>
<td>6.1 – 6.3</td>
<td>Inverse Trigonometric Functions, Solving Trigonometric Equations</td>
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<tr>
<td>Chapter 7</td>
<td>7.1 – 7.4</td>
<td>Law of Sines, Law of Cosines, Area of a Triangle</td>
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<tr>
<td><strong>Chapter 8</strong></td>
<td><strong>8.1 – 8.3</strong> <em>(Optional)</em></td>
<td><strong>Vectors</strong></td>
</tr>
<tr>
<td>Chapter 9</td>
<td>9.1 – 9.5</td>
<td>Polar Coordinates, Polar Equations, Complex Numbers</td>
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Revised 08/02/18