Syllabus
MAC1114 Trigonometry

Term: SUMMER C 2009-3
Reference #: 569143

Instructor's Name: OKSANA KOS
E-mail: okos1@mdc.edu
Office: Math Lab, Room # 2223
Mail-box: Math Lab, Room # 2223

Office Hours: TTR 4:30-5:30 pm
To leave a message for the instructor, please call the Math Lab at 305-237-3834 during its hours of operation:

MTWR 8:00 AM - 9:00 PM  F 8:00 AM - 4:00 PM  S 8:00 AM - 4:00 PM.

Course Description:
Topics include right triangle trigonometry; trigonometric functions of special angles; graphs of trigonometric functions and their inverses; trigonometric identities including sums and differences of angles, double angle, half angle, power reduction, sum to product, and product to sum; trigonometric equations; introduction to vectors; parametric equations; polar coordinates; arcs and sectors; dampened waves; complex numbers.

Credits: 3

Pre-requisites
MAC1105 (Grade C or better), or appropriate placement score

Textbook
Precalculus, Graphs and Models, 4th Ed. by Bittinger, Beecher, Ellenbogen, and Penna; Pub Addison-Wesley

At the Instructor’s discretion, a TI-83 or TI-84 Graphing Calculator may be required

Assistance
You can obtain assistance for mathematics classes in the Mathematics Laboratory, room 2223. There, you will find course-related videotapes and computer software, and tutors that can help you to successfully complete this course. The Math Lab is open during these hours:

MTWR 8:00 AM - 9:00 PM  F 8:00 AM - 4:00 PM  S 8:00 AM-4:00 PM.

You do not need an appointment to get assistance from the tutors on the Floor, but the tutors on the Floor must help all the students and may have to take turns; they cannot work with one student for a prolonged period of time.

One-to-one tutoring (1 hour long session) is available by appointment only. Please visit the Math Lab and speak to any of the Supervisors to schedule an appointment.
If you have a problem with the Math Lab, please contact any of the supervisors: Arcides Acosta, Maliya Beylin, Jose De Paz, or Verdieu Lucas at 305-237-3834 or visit their offices in room 2223. If after speaking with a supervisor the problem persists, then you need to visit the chairperson, Dr. Alicia Giovinazzo (office 1540) as the next step.

**Classroom and Laboratory Etiquette**

In order to create a learning environment for everyone, please observe the following courtesies

- Come to all the class or study sessions on time, and stay until the end of the class session unless you have informed your instructor by email or phone that you must leave early or come late.
- If you come in late or have to leave early please sit near the entrance.
- Absolutely no talking during lecture unless you have questions.
- Beepers and Cellular telephones must be turned off. *The vibrate mode is not considered turned off.* Absolutely no text messaging or instant messaging is allowed in the classroom. The instructor may ask you to leave the classroom for the day if you are caught.
- No food or drink in the classroom or the Math lab.
- Respect your classmates and your instructor.

**Problems with Instructor**

If you are having a problem with your mathematics instructor, please see that instructor during office hours. Before or after class is generally not a good time to discuss a problem with an instructor who is either about to start class or on the way to the next class. If after speaking with your instructor during office hours you cannot resolve the problem, then you need to visit the chairperson, Dr. Alicia Giovinazzo (office 1540) as the next step.

**Professional Student Behavior**

The MDC Students’ Rights and Responsibilities Handbook describes students’ appropriate and inappropriate behaviors, along with their consequences. Additionally, please be aware that cheating, plagiarism, and disruptive behavior are not tolerated and can result in serious consequences such as failure of a course or dismissal from the college. For more information, go to http://www.mdc.edu/policy/student_rights_and_responsibilities.pdf.

**Office Hours**

Your professor urges you to avail yourself of his/hers individual instruction during office hours. Do not wait until you are in trouble. If you have been absent or late to class, please read the lesson you missed and come to his/her office prepared with questions.

**Attendance**

The number one key to educational success is to attend classes. Students are responsible for any work missed when absent. Class attendance will be recorded daily. *Frequent absences may cause you to be dropped from the course.* You should make an effort to be in class, and on time. *Lateness is rude and disruptive.*

**Registration**

It is your responsibility to make sure that you are registered for this course. Be sure to obtain a copy of your schedule to verify the reference number and that you do not have any outstanding fees. *You will not be allowed to take the final exam if you are not in your instructor’s class roster* so make sure to resolve any issues prior to the final exam date.
Withdrawal

If you feel that you will be unable to complete the requirements for passing this class, it is important that you drop the class by the college's "drop date" as established by the registrar's office. You should speak to your instructor prior to making the decision to drop. Remember that it is your responsibility to drop a class, not the instructor's. If extenuating circumstances such as illness, accident, change in employment situation, etc., prevent you from continuing to attend your class before the drop date, speak to your instructor first and if needed, to the Chairperson, Dr. Alicia Giovinazzo (office 1540) to assess your options. If such a situation occurs after the drop date, you should contact the instructor for information as to how you can complete the requirements for passing the course.

Homework

At the discretion of the instructor, homework may be completed on line or on paper. Homework completed on paper is turned in to the instructor at the beginning of class on the day of each unit test and is generally checked for completion. All work must be shown. Your complete name and MDC-ID, instructor’s name and reference number, book section numbers and problem numbers must be clearly written on your homework. Section numbers must be highlighted. The homework must be turned in stapled together and in the proper order. Homework may not be turned in late.

Grading

In this class, you will have

- 4 Unit Exams
- Short in-class quizzes, at the instructor’s discretion
- Online quizzes, homework and reviews, at the instructor’s discretion
- A Final Exam, which is cumulative and must be taken during final exam week on the date and time designated by the registrar’s office (http://www.mdc.edu/main finals).

**Grading scale:** The final grade will be based on the following components

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>Best 3 out of 4 Exams</td>
<td>60 %</td>
<td>Average of 90-100% A</td>
</tr>
<tr>
<td>Homework and Quizzes</td>
<td>15 %</td>
<td>Average of 80-89% B</td>
</tr>
<tr>
<td>Cumulative Final Exam</td>
<td>25 %</td>
<td>Average of 70-79% C</td>
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<tr>
<td>Total</td>
<td>100%</td>
<td>Average 60-69% D</td>
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<tr>
<td></td>
<td></td>
<td>Average below 60% F</td>
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</table>

In addition, at the discretion of the instructor, students may be assessed through various in-class activities such as board work and small group presentations.

Incomplete

The grade of I (Incomplete) is given in the rare case that a student is passing a class but for some extenuating circumstance is unable to complete the last part (usually the final exam) of the class. If you are not passing your class, it is not possible for your instructor to give you an I. Note that you will have one full term (Fall or Winter) to complete the requirements of your Incomplete Contract. If you do not complete your requirements in that time, the I generally will automatically change to an F on your records. The instructor makes the determination as to whether you are eligible for an Incomplete.

MDC Email Account

Students are required to activate and use their MDC email account. The MDC account allows students to receive email from their instructors and get notification/announcements or other pertinent information from the College.
**Important Dates**

Class begins  
Weekdays and Evening  M May 10  
Weekend (Saturday and Sunday)  S May 15  

Last day to Withdraw with a Grade of W  T Jun 29  
Last day of Final Exams  F Jul 30  

Holidays  
Memorial Day: S May 29, U May 30, M May 31  
Independence Day: S Jul 3, U Jul 4, M Jul 5  

**Miami-Dade Learning Outcomes**

As graduates of Miami Dade College, students will be able to:

1. Communicate effectively using listening, speaking, reading, and writing skills.
2. Use quantitative analytical skills to evaluate and process numerical data.
3. Solve problems using critical and creative thinking and scientific reasoning.
4. Formulate strategies to locate, evaluate, and apply information.
5. Demonstrate knowledge of diverse cultures, including global and historical perspectives.
6. Create strategies that can be used to fulfill personal, civic, and social responsibilities.
7. Demonstrate knowledge of ethical thinking and its application to issues in society.
8. Use computer and emerging technologies effectively.
9. Demonstrate an appreciation for aesthetics and creative activities.
10. Describe how natural systems function and recognize the impact of humans on the environment.

Each course taken at the college addresses some of these learning outcomes. The learning activities designed in this course will address outcomes 1, 2, 3, 4, 5, 8, 9.
MAC1140

Syllabus, Textbook Homework Assignments
Tentative Schedule

<table>
<thead>
<tr>
<th>Sect.</th>
<th>Topic</th>
<th>Suggested Homework</th>
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</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Trigonometric Functions of Acute Angles</td>
<td>1-101 Odd</td>
</tr>
<tr>
<td>6.2</td>
<td>Applications of Right Triangles</td>
<td>1-41 All</td>
</tr>
<tr>
<td>6.3</td>
<td>Trigonometric Functions of Any Angle</td>
<td>1-97 Odd</td>
</tr>
<tr>
<td>6.4</td>
<td>Radians, Arch Length, and Angular Speed</td>
<td>1-73 Odd</td>
</tr>
<tr>
<td></td>
<td><em><strong>Exam # 1</strong></em></td>
<td></td>
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<tr>
<td>6.5</td>
<td>Circular Functions: Graphs and Properties</td>
<td>1-56 Odd</td>
</tr>
<tr>
<td>6.6</td>
<td>Graphs of Transformed Sine and Cosine</td>
<td>1-67 Odd</td>
</tr>
<tr>
<td>7.1</td>
<td>Identities: Pythagorean and Sum and</td>
<td>1-30 All, 31-75 Odd</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td></td>
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<tr>
<td>7.2</td>
<td>Identities: Cofunction, Double-Angle, and</td>
<td>1-40 All</td>
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<td></td>
<td>Half Angle</td>
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<td></td>
<td><em><strong>Exam # 2</strong></em></td>
<td></td>
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<tr>
<td>7.3</td>
<td>Proving Trigonometric Identities</td>
<td>1-56 All</td>
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<tr>
<td>7.4</td>
<td>Inverse of the Trigonometric Functions</td>
<td>1-67 Odd</td>
</tr>
<tr>
<td>7.5</td>
<td>Solving Trigonometric Functions</td>
<td>1-49 Odd</td>
</tr>
<tr>
<td>8.1</td>
<td>The Law of Sines</td>
<td>1-31 All</td>
</tr>
<tr>
<td>8.2</td>
<td>The Law of Cosines</td>
<td>1-35 All</td>
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<tr>
<td></td>
<td><em><strong>Exam # 3</strong></em></td>
<td></td>
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<tr>
<td>8.3</td>
<td>Complex Numbers: Trigonometric Form</td>
<td>1-75 Odd</td>
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<tr>
<td>8.4</td>
<td>Polar Coordinates and Graphs</td>
<td>1-97 Alternated Odd</td>
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<tr>
<td>8.5</td>
<td>Vectors and Applications</td>
<td>1-42 All</td>
</tr>
<tr>
<td>8.6</td>
<td>Vector Operations</td>
<td>1-85 Odd</td>
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<tr>
<td></td>
<td><em><strong>Exam # 4</strong></em></td>
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<td></td>
<td><em><strong>Cumulative Final Exam</strong></em></td>
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