MAC 1147 SYLLABUS
Summer 2008-3

COURSE: MAC 1147 – Integrated Pre-Calculus and Trigonometry

PREREQUISITES: MAC 1105 with a grade of C or higher, or have qualified for admission by the college placement test.

INSTRUCTOR: FAITH PETERS

OFFICE: Bldg. 1, Room 1536

OFFICE TELEPHONE: (305) 237-7012

OFFICE HOURS: To Be Announced

DEPT. SECRETARY TELEPHONE: (305) 237-7461

EMAIL: fpeters@mdc.edu

WEB PAGE: http://faculty.mdc.edu/fpeters


ADDITIONAL MATERIALS: A graphing calculator is required for this course. You are required to purchase your own calculator. Any TI-series graphing calculator is sufficient, (except for the TI-92), but if you plan on taking Calculus, then the TI-84 is recommended. In addition, you will need to purchase the MyMathLab access code (if you do not already have it!). Also, graph paper, a ruler, a highlighter, and lots of notebook paper, pencils and erasers are needed! 😊

COURSE DESCRIPTION: This course will provide the student with a broader understanding of all kinds of different functions and graphing techniques, particularly rational functions. It also covers systems of non-linear equations, all conic sections, sequences, series, mathematical induction and the binomial theorem. In addition, the student will also learn 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; and complex numbers.

HOMEWORK: It is strongly recommended that you do all the suggested problems in each section. Also, in preparation for the tests, it is recommended that you do the
Chapter Reviews and Tests located at the end of each chapter. Doing the homework consistently will do several things for you when it comes time to take a test:

1) Increase your speed and accuracy.
2) Increase your confidence (because you know what to expect on the test, there should be no surprises).
3) Increase your understanding of the directions on the test.

**HOMEWORK IS NOT GRADED!**

**TESTS and GRADING:**

- There will be 7 tests plus 2 mandatory final examinations (one covering Precalculus and the other covering Trigonometry). In addition, there will be several online homework assignments utilizing the *MyMathLab* software.

- The lowest test grade (not including the final exams) will be dropped.

- Your grade will be computed in the following manner:

  Tests (6 remaining)……………………………………………………60%

  Online Homework…………………………………………………15%

  Final Exam *(Average of the 2 final exams)*……………………25%

  TOTAL………………………………………………………….100%

- There are NO MAKE-UPS! If you miss a test for any reason, this will be considered the lowest grade, and therefore, dropped.

**GRADE SCALE (in percentages):**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
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<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>
</tr>
<tr>
<td>Below 60</td>
<td>F</td>
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*I (Incomplete)*

*Given only if the student is unable to take the final examination because of an emergency and the student has an average of C or better up to that point.*

**ATTENDANCE:** Class attendance will be recorded every meeting. Students are responsible for any work missed when absent. Frequent absences will impact your grade in a very negative way. Do not miss class unless you have a true emergency.

**WITHDRAWAL:** The last day to drop and add classes without financial penalty is **Thursday, May 14th**. If you feel that you will be unable to complete the requirements for passing a class, it is important that you drop the class by **Tuesday, June 30th**. You should speak to your instructor prior to making the decision to drop or withdraw. Remember that it is your responsibility to drop a class, not the instructor’s. If
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 and see the Dean of Students (room 1201) for your options regarding an appeal. 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.

**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.

**ADDITIONAL HELP:** The Math Lab, located in Bldg. 2, Room 2223, offers free tutoring by student assistants and full-time instructors. In addition, you will find course-related videotapes and computer software. A solutions manual containing worked-out solutions to the book’s odd-numbered exercises is available in the bookstore.

- The hours for the Math Lab are:
  - MTWR 8:00am – 8:00pm
  - Fri. 8:00am – 2:00pm
  - Sat. 10:00am – 2:00pm

No appointment is necessary to use the lab! The phone number for the lab is (305)237-3834.

- **The Math Lab is offering one-to-one tutoring!** If you are interested, please see one of the support staff in the Math Lab to make an appointment.

- If you do not already have the *MyMathLab* software, you can purchase it from either the college bookstore or from the CourseCompass website. Go to [www.coursecompass.com](http://www.coursecompass.com). The course ID is **peters52543**. This is an online resource offered by the publishing company that will allow you to link many features such as practice chapter tests, audio clips, video clips, student solution manual for your book, etc. You will also be able to contact tutors by phone, fax, email, or chat sessions. For instructions on how to use the online software, go to [www.aw.com/webexdemos](http://www.aw.com/webexdemos) and run the step-by-step demonstration.

**CLASSROOM ETIQUETTE:** Students should NOT have cell-phones or beepers turned on in class. Lack of attention to this matter may be cause for disciplinary action. You are expected to arrive on time to class, depart when the class has concluded, and treat others respectfully.

**ADDITIONAL COMMENTS:** The key to success is to come to class on time, take good notes, do your homework and ask questions. If you can do these 4 things during the course of the term, you should by successful in this class. **PLEASE, FEEL FREE TO ASK QUESTIONS BEFORE, DURING, AND AFTER CLASS!!**
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. Integrated Pre-Calculus and Trigonometry (MAC 1147) addresses outcomes 1, 2, 3, 4, and 8.

- **Communicate effectively using listening, speaking, reading, and writing skills.**
  This course requires reading and understanding the material covered in the textbook. Students will need to pay attention in class and may periodically be asked to explain a concept discussed in class.

- **Use quantitative analytical skills to evaluate and process numerical data.**
  The student will have the opportunity to develop these skills in solving applications of linear equations in two variables. They will also develop the ability to read and interpret graphs that represent linear patterns of data.

- **Solve problems using critical and creative thinking and scientific reasoning.**
  Some of the applications of systems of linear equations in two variables and of rational expressions will require the use of critical and creative thinking. Students will have to use the information given in a problem to set up systems of linear equations in one or two variables. They may at times need to use a chart to organize the information given in the problem. The problem solving approach they will use in this course constitutes an important contribution to the development of their scientific reasoning ability.

- **Formulate strategies to locate, evaluate, and apply information.**
  The areas that will provide students with this opportunity are applications of linear equations and systems of linear equations in two variables as well as variation problems.

- **Use computer and emerging technologies effectively.**
  Most homework assignments and quizzes will be posted on line on the Course Compass/My Math Lab website. Students will develop the ability to use these computer resources to monitor their progress and to help them reach a better understanding of the concepts, ideas and applications discussed in the course. They will also have the opportunity to use the external links posted on the website to explore topics related to the course goals and objectives.