**MATH& 142 Syllabus Rob Jonas Pre-Calculus 2 Spring 2013**

**Daily 11:00-11:50am Room: IVA 0109 Item: 6031 Section: CC**

 **Daily 1:00-1:50pm Room: IVA 0109 Item: 6035 Section: DD**

**Instructor:** Rob Jonas

**Office:** HSA 49

**Phone:** 833-9111 Extension 4939

**Office Hours:** Daily 9:00am – 9:50am **OR** by appointment (2pm?)

**Email:** rjonas@greenriver.edu

**Mailbox:** My mailbox is located in the HAS building.

**Text:** *Precalculus An Investigation of Functions, 1st Edition* by Lippman and Rasmussen.

 Text website: <http://www.opentextbookstore.com/precalc>

**Calculator**: A graphing calculator is required for this course.

 I will demonstrate with a TI-83.

**My web page:** [**http://www.instruction.greenriver.edu/rjonas/**](http://www.instruction.greenriver.edu/rjonas/)

**Calculator:** A graphing calculator is required for this course. I will be using the TI-83 or TI-84.

 **Prerequisite:** The prerequisite for this class is Math 141 with a grade of 2.0 or higher, or appropriate placement, or instructor’s permission.

**Class Format:** Parts of this class will be taught through the use of small groups in activities, worksheets or group presentations. While lectures will be given, student interactions through discussions and various writing activities will also be used. These types of activities are often similar to those found in real world settings. I view my role as one who will facilitate your learning of mathematics.

 A few other points:

 \*Attendance is very important **and poor attendance will affect your grade.**

 \*”Over the phone” work sessions or outside work sessions between classmates are highly encouraged.

 \*Don’t hesitate to ask me for suggestions or to inquire about your progress in the class.

 \*Utilize your resources in the Math Learning Center.

 \*Respect of all others in this class is a necessity.

 \*Absolutely no cheating or plagiarism will be tolerated in this class.

 \*No late papers will be accepted and no make-up quizzes or exams will be given.

**Course Content Learning Outcomes:**

By the end of this quarter, you should be able to:

1. Graph and identify important properties of trigonometric functions, parametric equations, and conic sections.
2. Solve trigonometric equations and verify trigonometric identities
3. Convert between polar and rectangular coordinates.
4. Model real world problems with trigonometric functions.
5. Have a solid understanding of vectors, their components and the dot product
6. Apply vectors to solve real world problems.
7. Understand, interpret and communicate effectively orally and in written form.
8. Work cooperatively in groups: respecting others’ ways of thinking, having confidence in your own knowledge, sharing information, pooling knowledge, and listening effectively
9. Develop problem solving skills: recognizing the applicability of previously learned solutions to new problems, recognizing and applying reverse reasoning (given the answer, what is the question) and developing an individual problem solving strategy
10. Recognize that problems may have alternative solutions and that alternative techniques may be used to arrive at those solutions
11. Understand when the use of a calculator is appropriate and when its use may lead to misconceptions

**ASSESSMENT:** Point distribution for participation, homework, and projects will be discussed in class.

**Grades will be weighted *roughly* as follows: (≈% of grade)**

 Homework (4) 100 pts 21.0%

 Present/Participation 25 pts 5.3%

 Quizzes (4) 100 pts 21.0%

 Exams (3) 150 pts 31.6%

 Final 100 pts 21.0%

 **Total 475 pts**

**Homework:** Required homework is listed on the back of the class calendar. You are encouraged to check your work with your classmates outside of class time, **especially** the even numbered problems. Also you may ask questions on homework problems in class (as time allows) and during my office hours or in the MLC. I suggest that you organize your homework in a three-ring binder. Check the calendar for homework packet due dates. These packets should **show the steps that justify the solution** to the problems. Please label the problems, circle the answers, and **put them in order**. Homework packets that are not in order may not receive full credit. I will select a subset of these problems to grade. **The lowest homework score will be dropped.**

**Quizzes:** There will be 4 short homework quizzes as shown on the class calendar. These quizzes will primarily emphasize skill and drill exercises and the homework questions. **The lowest quiz score will be dropped and replaced with a weighted score from your final if it makes your overall grade higher.**

**Tests:** There will be 3 tests given in class as noted on the class calendar. Included on tests will be questions asking you to problem solve, write, and explain processes**. Your lowest test score can be replaced with half your score on the final if this will result in a higher score**, therefore **no make-up tests are given.** Also, **I cannot give the final early,** so plan your quarter accordingly.

**Note: I drop the lowest scores in the above categories to account for emergencies (illness, forgot the assignment at home, had to go to the hospital, etc). Again, I do not accept late work, so if you have another low score, you are stuck with it and it will be used in your final grade calculations.**

**Presentations:** Occasionally (about 4 to 6 times) groups will go to the boards and do presentations. Typically you will be solving homework problems or other problems that I select. If you are absent on presentation day you will lose presentation points.

**Bonus points:** Most of the graded material has bonus points built in. For example, the homework is worth 25 points, but if you get 25 points, I will give you a 2 point bonus so you get 27 points. Quizzes usually have 26 points possible, but only count as 25 points…another bonus point and occasionally, I use a sample entrance exam for bonus points. Since there is 475 points possible in this class, about every *extra 5 points* could increase your decimal grade by 0.1! I designed my grading system like this so that you will consistently maintain your efforts. I hope it works. ☺

**Final Exam:** The final is comprehensive. The final exam date is listed on the class calendar based on the starting time for **your** class.

**DECIMAL GRADING:** Green River uses numerical grading. Numerical equivalent of grades are as follows:

95 -100%: 4.0 89:3.4 83:2.8 77:2.2 71:1.6 65-60:1.0

94 :3.9 88:3.3 82:2.7 76:2.1 70:1.5

93 :3.8 87:3.2 81:2.6 75:2.0 69:1.4 Below 60%:0.0

92 :3.7 86:3.1 80:2.5 74:1.9 68:1.3

91 :3.6 85:3.0 79:2.4 73:1.8 67:1.2

90 :3.5 84:2.9 78:2.3 72:1.7 66:1.1

A grade of “Pass” will only be given for decimal grades of 1.0 or above (that is, 60% or above). If you are planning on taking another math class, you must receive a 2.0 or above to go on. A “Pass” will not be sufficient to get you into the next course.

The following two outcomes will be demonstrated through in-class activities, homework, presentations and exams.

**1) Campus-Wide Outcomes:**

GRCC has identified ability areas that we believe encompass knowledge and are the most important skills, behaviors, attitudes, and values that students will need in order to be successful during and after college. For a complete description of all of these outcomes, refer to the college catalog. Among these ability areas, this class will address Quantitative/Symbolic Reasoning and Critical Thinking. You will be assessed on these outcomes through classroom participation, tests and activities.

**2) Quantitative and/or Symbolic Reasoning and Critical Thinking:**

In this class we will be dealing with a wide variety of problems that require you to evaluate and interpret information or data, and translate the data into various formats such as graphs, tables, formulas and sentences. You will also be expected to determine appropriate methods for solving problems and correctly implement those methods. You will be expected to state your answers clearly in complete sentences to show that you have understood what the problem is asking for and to verify that the answer is reasonable. Also, because math builds on itself, you will be expected to integrate and apply concepts learned in previous chapters to new material that is being presented. Essentially, you will be expected to be an active thinker in this class.

**Special Needs:**

If you believe you qualify for course adaptations or special accommodations under the Americans with Disabilities Act (ADA), it is your responsibility to contact the Disability Support Services Coordinator, Jean Carlson, at (253) 833-9111 extension 2318 and provide the appropriate documentation. If you have already documented a disability or other condition which would qualify you for special accommodations, or if you have emergency medical information or special needs I should know about, please notify me during the first week of class or as soon as possible. You can reach me by phone at (253)833-9111 extension 4939. Or you can come by my office (HAS 49) during my office hour or schedule an appointment with me. If this location is not convenient for you, we will schedule an alternative meeting place. If you use an alternative medium for communicating, please let me know well in advance of the meeting so that appropriate accommodations can be made.