Math 116	**Pre-Calculus II**	**Winter 2003**
Item #6463	**10am daily**	**17-103s**

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Course Description: (5 credits) Trigonometric functions and their graphs; identities; laws of sines; law of cosines; addition formulas; inverse trigonometric functions; trigonometric equations; powers and roots of complex numbers; conic sections; alternate coordinate systems.

Course Objectives: *The student will be able to ...*

- Know the definitions and understand the basic properties of trig functions from both a right angle triangle and wrapping function viewpoint.
- Know basic trig terminology.
- Understand the relations between a trig function and its inverse.
- Know the graphs of trig functions and their inverses.
- Use a calculator to evaluate trig functions at at special values
- Verify various trig identities

- Understand and apply trig identities that combine functions and/or angles
- Solve trig equations.
- Understand and apply the Law of Sines and Law of Cosines were appropriate.
- Understand algebraic and geometric vectors and their applications with special emphasis on polar coordinates.
- Find powers and roots of complex numbers using De Moivre's Theorem.
- Understand and work with topics on conic sections.

Text: *Precalculus*, 5th edition, Barnett and Ziegler. Bring the book to class.

Prerequisite: Math 115 or Compass College Algebra Score of 51.

Calculators: A graphing calculator is required for this course.
i.   The TI-83 or TI-83 plus is recommended. The use of symbolic calculators such as the TI-89 and TI-92 will not be allowed during exams. Furthermore, the use of all calculators may be prohibited during some exams (forewarning will be given).
ii.   Calculators may be rented from the math department on a first come first serve basis. To rent a calculator, pay the rental fee at the cashier in building 6 and then submit the form to me.

Homework: The format and grading criteria for homework is as follows.
i.   **Assigned Problems:** You are to work every third problem from each section beginning with 3, 6, 9, … The emphasis in grading will be on even problems.
ii.   **Format:** Homework should be done on Engineering Paper. Write your name, the date, and the section in the upper-right corner. Multiple page assignments must be stapled in the upper-left corner. Each problem should be clearly labeled with the problem number. Your work should be done neatly in pencil and you should generously space each problem.
iii.   **Grading:** Your homework will be graded for accuracy and completion. That is, for each problem graded, one point will be given for a attempting the problem and a second point will be given for

the correct answer. Missed assignments will be given a score of zero. Your three assignments with the lowest score will be dropped from your grade. *Late assignments will not be accepted*.
iv.   **Recommended Assignments:** The first three and the last five assignments (denoted by a "*") are recommended, but will not be collected.

Miscellaneous:
i.   **One Point Quizzes:** I will give short quizzes during lectures to test your understanding of the material. These cannot be made up.
ii.   **Other.**

Tests: There will be four tests given during the quarter.
i.   The exams will be cumulative, but will emphasize the material covered since the last test.
ii.   If you miss a test, a score of 0% will be assigned. All tests must be taken during the scheduled class time. *No make-up tests*.
iii. Spoken and written communication as well as sharing of calculators during exams is prohibited.

Final Exam: A comprehensive final exam will be held in the regular class meeting room. The final will be from *10 – 11:50am on Wednesday, March 19th*. The final exam is mandatory and a grade of 0.0 may be assigned at the instructor's discretion to those who fail to take the final exam.

Grading: Homework: 10%, Miscellaneous: 5%, Exams: 55%, Final Exam: 30%. GPA's will be given according to:

95-100%	4.0	%%%	GPA	%%%	GPA	%%%	GPA	%%%	GPA
93-4%	3.9	84%	3.1	76%	2.3	68%	1.5	60%	0.7
91-2%	3.8	83%	3.0	75%	2.2	67%	1.4	59%	0.6
90%	3.7	82%	2.9	74%	2.1	66%	1.3	58%	0.5
89%	3.6	81%	2.8	73%	2.0	65%	1.2	57%	0.4
88%	3.5	80%	2.7	72%	1.9	64%	1.1	56%	0.3
87%	3.4	79%	2.6	71%	1.8	63%	1.0	55%	0.2
86%	3.3	78%	2.5	70%	1.7	62%	0.9	54%	0.1
85%	3.2	77%	2.4	69%	1.6	61%	0.8	0-53%	0.0

Policies and Notes:
i.   **Attendance**: You are responsible for all material covered in class including all announced changes to the schedule and assigned course work. (If you miss class, *you* are still responsible for everything in class).
ii.   **Cell Phones**: The use of cell phones, pagers, and palm pilots in class is strictly prohibited. Failure to comply may result in your removal from the classroom.
iii. **Corrections**: Changes and corrections to grading must take place during the week following the original distribution of the graded material. It is your responsibility to confirm accurate grading and bring it to my attention in a timely fashion.
iv.   **Tutor Center**: Cost-free individual and group mathematics tutoring is available at the *Tutoring Center*. The *Tutor Center* is located in building 19, room 206.
v.   **Academic Dishonesty**: Cheating, plagiarism, and other forms of academic dishonesty are unacceptable at Highline Community College and may result in lower grades and/or disciplinary action. It is both your right and responsibility to be familiar with the document entitled: Student Rights and Responsibilities code WAC 1321-1210 adopted by the Board of Trustees of Community College District 9 on July 9, 1992. This is available in the counseling center.
vi.   **Special Concerns**: If you have any special concerns about this class, please talk to me personally in my office. The more I know about you individually, the more I can help you be successful in this course. If you need course adaptations or accommodations because of dis-Ability; if you

have emergency medical information to share with me; or if you need special arrangements in case the building must be evacuated, please provide me with the Letter of Accommodation you have received from the Office of Access Services. Access Services is located in Building 6 in the Student Development Center.

vii.   **Important Dates**: *January 27th*: last day to drop without incurring a "W." *March 7th*: last day to withdraw with a drop privilege.