



## Course Syllabus Plane Trigonometry MATH 1316

<b>Semester with Course Reference Number (CRN)</b>	Spring 2011 Math 1316=0004 (64268)
<b>Instructor contact information (phone number and email address)</b>	Mary Jane Ferguson <a href="mailto:mary.ferguson@hccs.edu">mary.ferguson@hccs.edu</a> 713-718-6441
<b>Office Location and Hours</b>	310 JDB 3:00 – 5:30 PM MW
<b>Course Location/Times</b>	302 JDB 5:30 – 7:00 PM MW
<b>Course Semester Credit Hours (SCH) (lecture, lab) if applicable</b>	Credit Hours 3.00 Lecture Hours 3.00 Laboratory Hours
<b>Total Course Contact Hours</b>	48
<b>Continuing Education Units (CEU): if applicable</b>	
<b>Course Length (number of weeks)</b>	18
<b>Type of Instruction</b>	Lecture
<b>Course Description:</b>	Topics include solutions of triangles, Euler identity, graphing of trigonometric and inverse trigonometric functions, identities, trigonometric equations, applications including DeMoivre's Theorem, and an introduction to vector analysis.

**Course  
Prerequisite(s)**

**PREREQUISITE(S):**

- MATH 1314 with a minimum grade of C or better or
- The equivalent

**Academic  
Discipline/CTE  
Program Learning  
Outcomes**

**Course Student  
Learning  
Outcomes (SLO):  
4 to 7**

1. Examine and interpret the graphs of basic trigonometric functions, vectors, and polar plots, and their transformations.
2. Apply standard trigonometric identities to simplify expressions and to solve trigonometric equations and applications.
3. Determine the exact value and approximation of basic trigonometric functions.
4. Rewrite complex numbers in polar form and apply arithmetic operations using both polar and standard forms of complex numbers.

**Learning  
Objectives  
(Numbering  
system should be  
linked to SLO -  
e.g., 1.1, 1.2, 1.3,  
etc.)**

**Examine and interpret the graphs of basic trigonometric functions, vectors, and polar plots, and their transformations.**  
**Apply standard trigonometric identities to simplify expressions and to solve trigonometric equations and applications.**  
**Determine the exact value and approximation of basic trigonometric functions.**  
**Rewrite complex numbers in polar form and apply arithmetic operations using both polar and standard forms of complex numbers.**

**SCANS and/or  
Core Curriculum  
Competencies: If  
applicable**

**SCANS**  
**Examine and interpret the graphs of basic trigonometric functions, vectors, and polar plots, and their transformations.**  
**Apply standard trigonometric identities to simplify expressions and to solve trigonometric equations and applications.**  
**Determine the exact value and approximation of basic trigonometric functions.**  
**Rewrite complex numbers in polar form and apply arithmetic operations using both polar and standard forms of complex numbers.**

**Instructional  
Methods**

Lecture, question and answer, textbook exercises, supplementary non-textbook exercises, group work

**Student  
Assignments**

**Examine and interpret the graphs of basic trigonometric functions, vectors, and polar plots, and their transformations.**  
No assignments selected for this outcome  
**Apply standard trigonometric identities to simplify expressions and to solve trigonometric equations and applications.**  
No assignments selected for this outcome  
**Determine the exact value and approximation of basic trigonometric functions.**  
No assignments selected for this outcome  
**Rewrite complex numbers in polar form and apply arithmetic operations using both polar and standard forms of complex numbers.**

No assignments selected for this outcome

**Student Assessment(s)**

**Examine and interpret the graphs of basic trigonometric functions, vectors, and polar plots, and their transformations.**

No assessments selected for this outcome

**Apply standard trigonometric identities to simplify expressions and to solve trigonometric equations and applications.**

No assessments selected for this outcome

**Determine the exact value and approximation of basic trigonometric functions.**

No assessments selected for this outcome

**Rewrite complex numbers in polar form and apply arithmetic operations using both polar and standard forms of complex numbers.**

No assessments selected for this outcome

**Instructor's Requirements**

No cell phones in class.

Scientific non-graphing calculator

4 In Class Tests

Unannounced Quizzes

Comprehensive Final Exam

The penalty for cheating is an F in the course

**Program/Discipline Requirements: If applicable**

1. Each instructor must cover all course topics by the end of the semester. The final exam is comprehensive and questions on it can deal with any of the course objectives.

2. Each student should receive a copy of the instructor's student syllabus for the course during the first week of class.

3. A minimum of three in class tests and a comprehensive final departmental examination must be given. The final examination must be taken by all students.

4. All major tests should be announced at least one week or the equivalent in advance.

5. The final exam must count for at least 25 to 40 percent of the final grade.

6. The final course average will be used in the usual manner (90-100 "A"; 80-89 "B"; 70-79 "C"; 60-69 "D"; Below 60 "F").

7. Either an open book or a take home major test may be given at the discretion of the instructor.

8. Any review sheet should be comprehensive and the student should not feel that classroom notes, homework and tests may be ignored in favor of the review sheet for any examination.

**HCC Grading Scale**

A = 100- 90 4 points per semester hour

B = 89 - 80: 3 points per semester hour

C = 79 - 70: 2 points per semester hour

D = 69 - 60: 1 point per semester hour

59 and below = F 0 points per semester hour

IP (In Progress) 0 points per semester hour

W(Withdrawn) 0 points per semester hour

I (Incomplete) 0 points per semester hour

AUD (Audit) 0 points per semester hour

IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses. To compute grade point average (GPA), divide the total grade

points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.

See "Health Science Program/Discipline Requirements" for grading scale.

**Instructor Grading Criteria** Four in Class Tests count 100 points each  
Quizzes count as bonus credit only and the number varies with the progress of the class  
Final Exam counts 100 points  
The lowest of the test grades is dropped at the end of the semester  
The grade on the final exam will also count as the grade on one missed test.

**Instructional Materials** Dugopolski, Mark, Trigonometry, Addison-Wesley, Second Edition, 2007.

**HCC Policy Statement:**

**Access Student Services Policies on their Web site:** <http://hccs.edu/student-rights>

**Distance Education and/or Continuing Education Policies**

**Access DE Policies on their Web site:** [http://de.hccs.edu/Distance\\_Ed/DE\\_Home/faculty\\_resources/PDFs/DE\\_Syllabus.pdf](http://de.hccs.edu/Distance_Ed/DE_Home/faculty_resources/PDFs/DE_Syllabus.pdf)

**Access CE Policies on their Web site:** <http://hccs.edu/CE-student-guidelines>