

## Sample Course Syllabus for Math MATH 1112, Section E, TRIGONOMETRY

<b>Credit Hours:</b>	3 (Note: Credit may not be received for both MATH 1112 and MATH 1113.)
<b>Term:</b>	Fall 2007
<b>Meetings &amp; Location:</b>	MPCS 1311, TR 11:00- 12:15
<b>Prerequisite Courses:</b>	A minimum grade of "C" in MATH 1111 or equivalent.
<b>Instructor:</b>	Professor Staff
<b>Office Location:</b>	MPCS 3008
<b>Office Hours:</b>	MWF 9:00 – 9:50 am, 11:00-11:50 am
<b>Contact Info</b>	
<b>Phone:</b>	(912) 681-5390
<b>E-mail:</b>	profstaff@georgiasouthern.edu
<b>Fax:</b>	(912) 681-0654
<b>Textbook:</b>	<i>Algebra &amp; Trigonometry</i> (3rd Edition), Blitzer, Pearson Prentice Hall, 2007;
<b>Required Calculator:</b>	TI-83/84

**Course Description:** Course Description: Circular functions, solutions of triangles, trigonometric identities and equations, graphs of trigonometric functions, Law of Sines, Law of Cosines, applications, vectors, matrices, complex numbers, Euler's formula, and DeMoivre's theorem. Appropriate technology will be used. Credit may not be received for both MATH 1112 and MATH 1113. Prerequisite: A minimum grade of "C" in Math 1111 or equivalent.

Course Objectives: The student will be able to

- Solve right and oblique triangles (using the Laws of Sines and Cosines)
- Sketch graphs of trigonometric and inverse-trigonometric functions; use graphs in solving trigonometric equations
- Use basic trigonometric identities and formulas (including sum-and-difference, double- and half-angle, product-to-sum) to simplify trigonometric expressions and solve trigonometric equations
- Graph polar equations; perform algebraic operations on complex numbers in polar form
- Perform vector operations (including the dot product)
- Solve systems of linear equations in two and more variables
- Perform matrix operations, use matrices in solving multi-variable systems of linear equations, evaluate determinants, use Cramer's rule

For General Education Objectives, see

[http://academics.georgiasouthern.edu/provost/instruction/gened\\_outcomes.html](http://academics.georgiasouthern.edu/provost/instruction/gened_outcomes.html)

**Assessment of Course Objectives:** Student achievement will be measured through three hourly exams worth a total of 66% of the course grade, a comprehensive final worth 24% of the course grade, quizzes and homework worth 10% of the course grade.

**Grading Policy** (varies by instructor): Grades will be assigned based on the percentage of points earned. A student earning 90-100% of the total points will receive a course grade of an A, 80-89% a B, 70-79% a C, 60-69% a D and below 60% an F.

**Make-up Policy** (varies by instructor): No make-up exams will be given. When a student misses an exam the score from the final exam will be substituted for the missing exam score. No late homework will be accepted.

**Attendance Policy** (varies by instructor): Students are expected to attend each class meeting and pay attention but attendance will not be taken. A student who misses class is responsible to find out what was discussed and learn the material that was covered on the missed day. The instructor is **not** responsible for reteaching material issued by a student who did not attend class.

**Academic Dishonesty Policy:** Any student who exhibits academic dishonesty in any form will receive a failing grade (F) for the entire course and will be reported to the University Judicial Officer. For more information, see the Student Guide at

<http://students.georgiasouthern.edu/sta/guide/>

**Civility Statement:** See the Student Conduct Code at the URL above.

**Disability Policy:** See <http://students.georgiasouthern.edu/disability>.

**Additional Help:** The Academic Success Center offers free peer tutoring during the week.

Contact tutorial centers for exact hours at 681-0321 or

<http://academics.georgiasouthern.edu/success/>.

**Important Dates:**

October 8:	Last day to drop without academic penalty
November 21–23:	Thanksgiving Holiday
November 29:	Last day of classes
Final Exam:	provide date and time

**Topics: NOTE:** You may wish to provide dates or days on task in the final column.

Section

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5.1	Angles and Radian Measure
5.2	Right Angle Trigonometry
5.3	Trigonometric Functions of Any Angle
5.4	Trigonometric functions of Real Numbers: Periodic Functions
5.5	Graphs of the Sine and Cosine Functions
5.6	Graphs of Other Trigonometric Functions
5.7	Inverse Trigonometric Functions
5.8	Applications of Trigonometric Functions
6.1	Verifying Trigonometric Identities
6.2	Sum and Difference Formulas
6.3	Double-angle, Power Reducing and Half-angle Formulas
6.4	Product to Sum and Sum to Product Formulas
6.5	Trigonometric Equations
7.1	The Law of Sines
7.2	The Law of Cosines
7.3	Polar Coordinates
7.4	Graphs of Polar Equations
7.5	Complex Numbers in Polar Form: DeMoivre's Theorem
7.6	Vectors
7.7	The Dot Product
8.1-8.2	Systems of Linear Equations
9.1	Matrix Solutions to Linear Systems

- 9.2 Inconsistent and Dependent Systems and Their Applications
- 9.3 Matrix Operations and Their Applications (emphasize operations)
- 9.4 Multiplicative Inverses of Matrices and Matrix Equations
- 9.5 Determinants and Cramer's Rule