

Mathematics 114. Trigonometry Syllabus for Instructors

- **Required Course Materials:**

ALEKS code: purchase at www.aleks.com/

- **Course Description:**

Rapid introduction of Right Triangle Trigonometry, Radians and the Unit Circle, Graphing Trigonometric Equations, Trigonometric Identities, and Inverse Functions and Trigonometric Equations.

- **Prerequisite:** Three years of high school mathematics, including two years of algebra and one year of geometry.

- **Tentative Topic Schedule**

- (1) Right Triangle Trigonometry
- (2) Radian and Degree Measure
- (3) Trigonometric Functions: The Unit Circle
- (4) Trigonometric Functions on any Angle
- (5) Graphs of Sine and Cosine Functions
- (6) Graphs of Other Trigonometric Functions
- (7) Applications and Models
- (8) Using Fundamental Identities
- (9) Verifying Trigonometric Identities
- (10) Sum and Difference Formulas
- (11) Multiple-Angle Formulas
- (12) Inverse Trigonometric Functions
- (13) Solving Trigonometric Equations
- (14) Law of Sines
- (15) Law of Cosines