MWF TRIGONOMETRY EXAM TOPICS

Point values are in parentheses.

EXAM I (60 points)

5.1 1. Converting degrees, minutes, seconds to decimal degrees, and vice versa (5)

5.1 2. Converting angles from degrees to radians, and vice versa. Using s = r times theta(10)

5.2 3. Trig. Functions of acute angles, using fundamental identities, complementary angle theorem(10)

5.2 4. Exact trig. Values, calculator approximations (10)

5.8 5. Solving right triangles (5)

5.2, 5.8 6. Right triangle word problem (5)

5.3 7. Given a trig. Function value, finding the exact values of the other 5 trig.functions in a specified quadrant. (10)

5.3 8. Finding exact value of a trig function using the reference angle. (5)

EXAM II (65 points)

5.4 1. Using unit circle to solve a simple trig equation or find the domain of a trig function (5)

5.6 2. Sketching trig functions other than sine or cosine. (basic graphs) (10)

5.6 3. Modified secant, cosecant, tangent, or cotangent graph (5)

5.5 4. Modified sine or cosine graph (10)

5.7 5. Inverse trig functions (10)

6.1 6. Prove an identity (10)

6.2 7. Using sum and difference formulas (15)

EXAM III (55 points)

6.3 1. Using double angle and half angle formulas(10)

6.3 2. Prove an identity involving the double angle formulas(10)

6.4 3. Using product-to-sum and sum-to-product formulas. These will be given. (10)

6.5 4. Solving trigonometric equations (25)

EXAM IV(60 points)

7.1, 7.2 1. and 2. Solving triangles involving Law of Sines and Law of Cosines (20)

7.1, 7.2 3. Law of Sines or Law of Cosines word problem(10) **(continued on next page**)

7.3 4. Polar coordinates, conversion polar to rectangular coordinates and vice versa, converting equations from polar form to rectangular form and vice versa.(15)

7.4 5. Polar graphs (15)

EXAM V (60 points)

1.4, 1.5 1. Adding, subtracting, multiplying and dividing complex numbers in rectangular from, conjugates, powers of I, solving quadratic equations with complex solutions.(20)

7.6 2. Position vectors, algebraic vectors, magnitude, unit vectors, decomposing vectors(20)

7.5 4. Converting complex numbers from rectangular to polar form and vice versa. Multiplication and division in polar form (10)

7.5 5. De Moivre's Theorem and the nth Root Theorem (10)