Flow Chart of Math IV Pacing Guide
(Computer Aided Drafting)

Pre-knowledge
(First Semester) Completed by the Mathematics Instructor

Embedded Math within Curriculum 2nd and 3rd Semesters

Module I

Competency 1:
Be able to accurately interpret different units of measure using different scale measuring devices. (Architect Scale)

Competency 2:
Differentiate between Standard English and Metric conversions

Competency 3:
Assess different types of angles and their measure of rotation. (Positive and Negative rotation/Terminal and Co terminal) Understand the relationship between deg/min/seconds

Competency 4:
Apply concepts concerning the functions of acute and general angles (Trig ratios for 30, 45, and 60 degree angles)

Module II

Competency 1:
Be able to solve right triangles using the functions of sine, cosine, tangent, secant, cosecant, cotangent,

Competency 2:

Be able to manipulate formulas such as the Law of Sines and Cosines to solve any triangle whether right, acute, or obtuse in addition to using Pythagorean's theorem

Competency 3:
Solving general triangles SSS, SAS, ASA, AAS, and SSA and problems of angle measure in reference to parallel lines cut by a transversal

Competency 4:
Be able to use the appropriate formulas for calculating the areas of triangles. (Heron's Formula)

Module III

Competency 1:
To interpret graphs of trigonometric functions

Competency 2:
To observe different shaped 3-D object and calculate their volumes in English and Metric units

Competency 3:
To understand vectors and their components and use vectors to solve problems

Competency 4:
To study the phenomenon of mechanics involving gears and pulleys

Module IV

Competency 1:
Electrical Theory – Calculating volts, amps, watts, and ohms

Competency 2:
Create ergonomic designs involving cabinets and stairways

Competency 3:
To calculate load bearing capacity of beams and support systems

Competency 4:
To study the characteristics of geometric circles such as the centre, radius, diameter, circumference, sectors, segments, arcs, Tangents, chords, and secants

Post-knowledge
Last Semester- Real World Situational Math Project
Designed by the Math Instructor and Program Instructor