**Math 106-Syllabus**

**Text book: Calculus, Early Transcendental Functions, 3rd edition By Robert T. Smith and Roland B. Minton**

**All proofs are NOT included**

**4.1** All except Example 1.12

**4.2** Examples2.1, 2.2 and 2.3. Theorem 2.1 and Theorem 2.2 Example 2.4

**4.3**From page 362 to page 365 except Example 3.4

**4.4** Definition 4.1, Example 4.2, Theorem 4.1, Theorem 4.2, Example 4.6, Theorem 4.3, Theorem **4.4** and Example 4.8

**4.5** Theorem 5.1. Remark 5.1, From Example 5.1 to Example 5.6, Theorem 5.2. Examples5.7, 5.8 and 5.9

**4.6** All plus the following examples:

**4.7 Midpoint Rule**:Example 7.1, **Trapezoidal Rule**: Example 7.5, **Simpson’s Rule**: Example 7.6

**4.8** All except Example 8.3

**Derivatives and Integrals of Hyperbolic functions:from Calculus 6th edition, by Swokowski, Olinick and Pence**, from **page 591**, Definition 6.41, graphs of sinh and cosh. Theorem 6.42, Definition 6.43, Theorem 6.44, Theorem 6.45, Example 1, Theorem 6.46, Example 3. Theorem 6.47. Theorem 6.48, Example 4, Theorem 6.49, Example 5 and Example 6.

**6.1** All with the following example

**6.2** All plus the reduced forms of

**6.3** All

**6.4** Examples 4.2, 4.3, 4.4, 4.5. (Examples 4.1 and 4.6 left for the student)

**6.6**Discussion the Integral in page 546. From Definition 6.1 to Example 6.13

**5.1** Examples 1.1, 1.2 and Example 1.3 but in this example replace *y=x2* by *y=sinx in* *.* AlsoExamples 1.4, 1.5 and 1.6

**5.2**Examples 2.4, 2.5 and Example 2.6 (only around x, y axis) i.e. without part c. Example 2.7(part a)

**5.3**Example 3.1, Example 3.3 (but around the lines x=0 and y=0), Example 3.4(replace by in around y-axis)

**5.4**Example 4.2 (by Trigonometric Substitution). The following example from to . Example 4.5 but replace *y=x4 by y=x3*.

**9.1** Examples 1.1, 1.3, 1.4, 1.5, 1.6 and 1.7

**9.4** Examples 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6. Then we give formula (5.6) in page 758, after that we sketch the following Examples and then find the area as follows:

Example 4.7 find the area when 

Example 4.9 find the area when and 

Example 4.12find the area when . Remark the students that the area of one leaf of a Three-Leaf rose is when.