Chapter 7: Application of Definite Integrals
Unit Details

Timeline
Approximately 9 teaching days

Resources
Text book Chapter 7
Moodle support – Video Lessons, worksheets, answer keys.

Objectives
> See individual notes for details

Key Ideas/Terms/Theorems/Processes
- Linear Motion
- Consumption over time
- Work
- Area between Curves
- Area enclosed by Intersecting Curves
- Boundaries with Changing Functions
- Integrating with respect to y
- Volume as an Integral
- Square Cross Sections
- Circular Cross Sections
- Cylindrical Shells
- Other Cross Sections
- Length of Curves
- Normal Probabilities

Practice & Support
- Pg 386 #'s 1-11 odds, 12-17, 20
- Pg 386(2) #'s 21-31 odds, 34, 36
- Calculaugh #59
- Pg 395 #'s 1-5, 7, 13, 15, 17, 28
- WS: Problem Set 25
- Pg 406 #'s 2-6
- Pg 406(2) #'s 7-9, 12-20
- Pg 407 #'s 22-26, 28, 29
- Pg 407(2) #'s 27, 30, 33, 35, 37, 45, 46
- WS: Volumes by Cross Sections
- WS: The Revolution will not be Televised
- Pg 416 #'s 1, 3, 5, 7, 11, 13, 17, 23, 24
- Pg 425 #'s 1, 3, 5, 7, 9, 10, 29-31
- Pg 430 #'s 1, 4, 7, 10, 17, 20, 21, 24, 28, 29, 34, 44
- WS: More Volume Problems
- WS: Exponential Growth and Decay

Assessments
Quiz: Sections 7-1 to 7-2
Quiz: Section 7-3
Summative assessment – Part 1: No Calculator
Part 2: Calculator

Lessons
Sections 7-1 to 7-5. See notes for details.