Instructor: K.M Ariful Kabir
Lecture Time: 15:20p.m. –16:50p.m. M/W
Class Room: BC#5002

   By – Howard Anton, Irl Bivens and Stephen Davis
   2) Elementary Differential Equations & Boundary Value Problems- 7th Edition
      By – Boyce, Diprima

     2) Advanced Engineering Mathematics, Erwin Kreyszig, 7th edition,
        John Wiley.

Grading Policy:

\[
\begin{array}{|c|c|}
\hline
\text{Grade} & \text{Percentage} \\
\hline
A & 85\% \text{ above} \\
A- & 80-85 \\
B+ & 75-79 \\
B & 70-74 \\
B- & 65-69 \\
C+ & 60-64 \\
C & 55-59 \\
C- & 50-54 \\
D & 40-50 \\
F & \text{less than 40\%} \\
\hline
\end{array}
\]

Mark Distribution: 2 Class Tests (Average): 25%
   Mid-Term: 35%
   Class performance: 5%
   Final Exam: 35%
   Total: 100%

Course Content

**Chapter 13. Partial Derivatives**
13.1 Functions of Two or More Variables (Week 1)
13.2 Limits and Continuity (Week 1)
13.3 Partial Derivatives (Week 2)
13.4 Differentiability, Local Linearity and differentials (Week 2)
13.5 The Chain Rule (Week 3)
13.6 Directional Derivatives and Gradients (Week 3)
13.7 Tangent Planes and Normal Vectors (Week 4)
13.8 Maxima and Minima of Functions of Two Variables (Week 4)
Chapter 14 Multiple Integrals
14.1 Double Integral (Week 5)
14.2 Double Integrals over Nonrectangular Regions (Week 5)
14.3 Double Integrals in Polar Coordinates (Week 6)
14.5 Triple Integrals (Week 6)
14.7 Triple Integrals in Cylindrical and Spherical Coordinates (Week 7)
14.8 Change of variables in Multiple Integrals; Jacobians (Week 7)

(MIDTERM)

Chapter 15 Topics in Vector Calculus
15.1 Vector Fields (Week 8)
15.2 Line Integrals (Week 9)
15.3 Independence of Path; Conservative Vector Fields (Week 10)
15.4 Green’s Theorem (Week 11)
15.5 Surface Integrals (Week 10)
15.7 The Divergence Theorem (Week 11)
15.8 Stoke’s Theorem (Week 12)

Chapter
Exact Equations and Integrating Factors (Week 13)

FINAL EXAM WILL BE HELD ACCORDING TO THE GREEN BOOK SCHEDULE.