

Semester II: January 14, 2024 – June 10, 2024

MATH 203: Differential and Integral Calculus

Course details

Name of Instructor: Professor Dr. TMG Ahsanullah

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Books: Calculus by E. R. Swokowski, M. Olinic, and D. Pence, PWS Publishing Company, Boston.

You may consult Lecture Notes on Math 203 by Dr. Asif Qureshi as supporting materials

STT (1 3 5) slot (Group: 85181 Time:2.00-2.50 PM in Room 1A100)

Chapter 8: Infinite Series

8.1 Sequences

8.2 Convergence or Divergence Series

8.3 Positive-term Series

8.4 The Ratio and Root Tests

8.5 Alternating Series and Absolute Convergence

8.6 Power Series

8.7 Power Series Representation of Functions

8.8 Maclaurin and Taylor Series

Chapter 13: Multiple Integrals

13.1 Double Integrals

13.2 Area and Volume

13.3 Double Integrals in Polar Coordinates

13.4 Surface Area

13.5 Triple Integrals

13.6 Moments and Center of Mass

13.7 Cylindrical Coordinates

13.8 Spherical Coordinates

Chapter 14: Vector Calculus

14.1 Vector fields

14.2 Line Integrals

14.3 Independence of Path

14.4 Green's Theorem

14.5 Surface Integrals

14.6 The Divergence Theorem

14.7 Stockes's Theorem