Course Outline

625.250.8x: Multivariable Analysis

This outline provides an overview of the course and assignments by week. Please remember to check the calendar for specific due dates.

Each course module runs for a period of seven (7) days, i.e., one week. Unless otherwise noted in Blackboard, due dates for assignments are the last day of the module week. It is recommended that you complete the readings and lectures at the beginning of each module week, then quickly jump into the discussion forum and problem set for that week.

Module	Dates	Module Title	Assignments
Module 1	Mon 08/31/20– Sun 09/06/20	Matrices and Linear Systems	• Introductions • Discussion • Problem Set
Module 2	Mon 09/07/20– Sun 09/13/20	Matrix Eigenvalue Problems	• Discussion • Problem Set • **Quiz 1**
Module 3	Mon 09/14/20– Sun 09/20/20	Vector Differential Calculus	• Discussion • Problem Set • **Quiz 2**
Module 4	Mon 09/21/20– Sun 09/27/20	Gradient, Divergence, and Curl	• Discussion • Problem Set • **Quiz 3**
Module 5	Mon 09/28/20– Sun 10/04/20	Green's Integral Theorem	• Discussion • Problem Set
Module 6	Mon 10/05/20– Sun 10/11/20	Gauss and Stokes Theorems	• Discussion • Problem Set • **Quiz 4**
Module 7	Mon 10/12/20– Sun 10/18/20	Cauchy-Riemann Equations	• Discussion • Problem Set • **Midterm Exam**
Module 8	Mon 10/19/20– Sun 10/25/20	Complex Trigonometric Functions	• Discussion • Problem Set
Module 9	Mon 10/26/20– Sun 11/01/20	Cauchy's Integral Theorem	• Discussion • Problem Set • **Quiz 5**
Module 10	Mon 11/02/20– Sun 11/08/20	Cauchy's Integral Formula	• Discussion • Problem Set • **Quiz 6**

Module	Dates	Module Title	Assignments
Module 11	Mon 11/09/20– Sun 11/15/20	Power Series	• Discussion • Problem Set
Module 12	Mon 11/16/20– Sun 11/22/20	Laurent Series	• Discussion • Problem Set
Module 13	Mon 11/30/20– Sun 12/06/20	Residue Integration Method	• Discussion • Problem Set
Module 14	Mon 12/07/20– Sun 12/13/20	Final Exam	• **Final Exam**