OFFICIAL SYLLABUS
OR 587b – Mathematical Programming
Adopted - Spring 2004 (Committee: Drs. M. Agustin, M. Cooper, E. Sewell)

Course Description. Theory, methods, and applications of integer, dynamic, and nonlinear programming. Prerequisite: OR 587a

Textbook. Network Flows by Ahuja, Magnanti, and Orlin.
Supplementary Textbook. Operations Research: Applications and Algorithms, Forth Edition, by Wayne L. Winston.

Course Outline and Topics
    Chapter 2: Shortest Paths: Label-Setting Algorithms (Optional)
    Chapter 6: Maximum Flows: Basic Ideas (Optional)
    Chapter 7: Maximum Flows: Polynomial Algorithms (Optional)
    Chapter 12: Assignments and Matchings (Optional)
    Chapter 13: Minimum Spanning Trees (Optional)
    Chapter 9 (Winston): Integer Programming
    Chapter 16: Lagrangian Relaxation and Network Optimization
    or
    Chapter 12 (Winston): Nonlinear Programming
    Chapter 20 (Winston): Deterministic Dynamic Programming

Any instructor should cover all of the material specified and several of the optional sections on graphs and networks.