Week 1 (2/24, 2/26): Compactness revisited, Sequential compactness, Ascoli-Arzela Theorem, Weierstrass approximation theorem

Week 2 (3/3, 3/5): Multivariable calculus, Continuity, Differentiability

Week 3 (3/10, 3/12): Taylor’s formula

Week 4 (3/17, 3/19): The inverse function theorem

Week 5 (3/24, 3/26): The implicit function theorem

Week 6 (3/31): ***First exam***

Week 7 (4/7, 4/9): Extremum problems and method of Lagrangian multiplier

Week 8 (4/14, 4/16): Multiple Riemann integrals

Week 9 (4/21, 4/23): Iterated integrals, Jordan measurable sets

Week 10 (4/28, 4/30): Introduction to Lebesgue integrals, Lebesgue measure

Week 11 (5/5, 5/7): Measurable functions, Lebesgue integrals

Week 12 (5/12, 5/14): ***Second exam,*** Convergence theorems

Week 13 (5/19, 5/21): Convergence theorems

Week 14 (5/26, 5/28): *Happy Week*

Week 15 (6/2, 6/4): Iterated integrals, Fubini-Tonelli’s theorem

Week 16 (6/9, 6/11): Riemann integrals and Lebesgue integrals

Week 17 (6/16, 6/18): Calculus on manifolds (optional)

Week 18 (6/23): ***Final exam***