

Multivariable calculus:

Functions of several variables: directional derivatives, partial derivatives, total derivative, Inverse and Implicit function theorems, maxima and minima, saddle point, Lagrange's multiplier theorem;

### Books

1. Walter Rudin, Principles of Mathematical Analysis, Third Edition, McGraw Hill International Editions, Mathematical Studies 1976; Paper-back Indian Edition 2017.
2. T. M. Apostol - *Mathematical Analysis*, Second Edition