Math 107H

Checklist of topics covered

Antiderivatives, area, definite integrals
Sums, Sigma notation
Fundamental Theorem of Calculus
Numerical integration
Area between curves
Volume by slicing
    Disks and washers, cylindrical shells
Arclength, surface area
Work

Exponentials and logarithms
Logarithmic differentiation
Inverse functions, inverse trig functions
Hyperbolic functions, inverse hyperbolic functions
Integration by substitution
Integration by parts
Trigonometric substitution, trig integrals

Partial fractions
L'Hôpital's Rule
Improper integrals
Sequences, infinite series
Comparison test, limit comparision test
Integral test
Ratio test, root test
Power series
Taylor series, Taylor polynomials
Error estimates

Parametric curves
Arclength, surface area