MATH 9B

Textbook - APEX Calculus, Version 3.0, available at

http://www.apexcalculus.com/downloads/

Suggested number of 50-minute lectures:

1.5 lectures - (5.1) Antiderivatives and indefinite integration.

1 lecture - (5.2) The definite integral.

1 lecture - (5.3) Riemann sums.

2 lectures - (5.4) The fundamental theorem of calculus.

3 lectures - (6.1) Substitution.

2 lectures - (6.2) Integration by parts.

1 lecture - (6.3) Trigonometric integrals. (Cover powers of sine and cosine.)

2 lectures - (6.4) Trigonometric substitution.

2 lectures - (6.5) Partial fraction decomposition.

1 lectures - (6.6) Hyperbolic functions.

2 lectures - (6.8) Improper integration.

1 lecture - (7.1) Area between curves.

2 lecture - (7.2) Volume by cross-sectional area; disk and washer methods.

1.5 lecture - (7.3) The shell method.

2 lectures - (7.4) Arc length and surface area.