Sect. 7.1:
- integration by parts

Sect. 7.2:
- trigonometric integrals
- integrals of $\sin^m x \cos^n x$
- integrals of $\tan^m x \sec^n x$
- integrals of $\sin mx \sin nx$, $\sin mx \cos nx$, $\cos mx \cos nx$

Sect. 7.3:
- trigonometric substitutions

Sect. 7.4:
- integration of rational functions by partial fractions
- rationalizing substitutions

Sect. 7.7:
- approximate integration
- midpoint rule
- trapezoidal rule
- error bounds

Sect. 7.8:
- improper integrals of type I
- improper integrals of type II
- Direct Comparison Test

Sect. 8.1:
- arc length

Sect. 8.2:
- area of a surface of revolution

Sect. 10.1
- parametric curves
- graphing parametric curves as Cartesian curves (exercises 7-15 p. 645)

Sect. 10.2
- tangent lines to parametric curves
- areas under parametric curves

Sect. 10.3
- arc length for parametric curves
- surface area for parametric curves

**Sect. 10.4**
- polar coordinates
- polar and cartesian coordinates; conversion
- tangents to polar curves

**Sect. 10.5**
- areas in polar coordinates
- lengths in polar coordinates

**Sect. 10.6**
- conic sections: parabolas, hyperbolas, ellipses

**Sect. 11.1**
- sequences
- limit of a sequence
- infinite limits
- limit laws for sequences
- the squeeze rule
- Th2, Th5 pp. 695-696
- monotonic sequences, convergence of monotonic bounded sequences

**Sect. 11.2**
- series; convergence of a series
- geometric series
- telescoping series
- harmonic series
- Th6 p. 709
- divergence test
- sums, differences, constant multiples of convergent series

**Sect. 11.3**
- the integral test
- estimates of sums

**Sect. 11.4**
- DCT
- LCT

**Sect. 11.5**
- the Alternating Series Theorem
- Alternating Series Estimation Theorem

**Sect. 11.6**
- absolute and conditional convergence; Th.3 p. 732
- the ratio test
- the root test

**Sect. 11.8**
- power series
- radius and interval of convergence

**Sect. 11.9**
- functions as power series
- term-by-term integration and differentiation of power series

**Sect. 11.10**
- Taylor and Maclaurin series
- Taylor polynomials
- Th.8, Th. 9 (pp. 753-754)
- important Maclaurin series (p.758)