

Syllabus for Math 100

September 5, 2007

Instructors: B. COLE, Y. LIN, C. TSIKKOU, Y. YASUFUKU

Text: Edwards and Penney, *Calculus Early Transcendentals*, 7th edition.

The main topics appear below.

- **Techniques of Integration.** Substitution, integration by parts, trigonometric integrals, partial fractions, trigonometric substitutions, integrals involving quadratic polynomials.
- **Infinite Series.** Convergence, Taylor series, Taylor polynomials, integral test, comparison test, alternating series, absolute convergence, power series, radius of convergence, power series computations.
- **Differential Equations.** First order separable equations, first order linear equations, second order linear homogeneous equations, series solutions of differential equations.
- **Polar Coordinates and parametric curves.** Polar coordinates, areas computations in polar coordinates, introduction to parametric curves (if time permits).

Exam #1, 7–8:30 p.m., Tuesday, October 2, *room to be assigned.*

Exam #2, 7–8:30 p.m., Tuesday, November 6, *room to be assigned.*

Final Exam, 2–5 p.m., Tuesday, December 18, *room to be assigned.*

See the URL <http://www.math.brown.edu/~bjc/courses/math100/> for information about Math 100 during the semester.