MATH 634 - Section 001
Theory of Ordinary Differential Equations
Syllabus - Fall 2015

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Course Description: Existence, uniqueness, continuation, continuous dependence of solution of differential equations, contraction mapping principles, Gronwall’s inequality, linear systems with constant coefficients, Jordan normal forms, fundamental solutions, variation of constants formula, Floquet theory for periodic solutions, stability and asymptotical stability, Lyapunov functions, bifurcations, invariant sets, omega limit sets, and limit cycles. These are found in Chapters 1, 2, 4, and 8 of the text.

Homework: Homework assignments and their due dates are listed in the Schedule. Each question will be graded out of 10. Homework scores will be posted on Learning Suite. Please review these scores to ensure their accuracy.

Final Exam: A take-home final exam will be given to you on December 4, 2015. The take-home final exam is due on the first day of finals, December 14, 2015.

Grading: The assessment of your grade will be determined by homework assignments (70%) and a take-home final exam (30%), and extra credit for doing the online evaluation. A raw percentage grade of 90% will guarantee a letter grade of A, 85% an A-, 80% a B+, 75 a B, 70% a B-, 65% a C+, 60% a C, 55% a C-, 50% a D+, 45% a D, 40% a D-, and below 40% will be given an E. These cut-offs may be adjusted downward depending upon the distribution of the raw percentage grades.

Miscellaneous: Preventing Sexual Harassment: Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 801-422-5895 or 1-888-238-1062 (24-hours), or http://www.ethicspoint.com; or contact the Honor Code Office at 801-422-2847.

Students with Disabilities: BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.

Children in the Classroom: The study of mathematics requires a degree of concentration and focus that is exceptional. Having small children in class is often a distraction that degrades the educational experience for the whole class. Please make other arrangements for child care rather than bringing children to class with you. If there are extenuating circumstances, please talk with your instructor in advance.