Depending on how fast we go, specific topics and homework due dates may change, though I would really like to avoid changing the exam dates. I will make any changes as soon as they become necessary.

Week One

- Monday 6/3/13 - *Basic Examples and Definitions, Classification of ODEs*

- Tuesday 6/4/13 - *Direction Fields, Solution Curves, Equilibrium Solutions*

- Wednesday 6/5/13 - *Separable Equations, Method of Integrating Factors, Special Equations*

- Thursday 6/6/13 - *1st Order Linear Equations: Existence and Uniqueness of Solutions, IVPs and BVPs, Examples*

- Friday 6/7/13 - *Numerical Methods* **HW 1 Due**

Week Two

- Monday 6/10/13 - *Numerical Methods (cont'd)*

- Tuesday 6/11/13 - *Modeling and Applications w/ 1st Order Linear Equations*

- Wednesday 6/12/13 - *Modeling and Applications w/ 1st Order Linear Equations (cont'd)*

- Thursday 6/13/13 - *Review* **HW 2 Due**

- Friday 6/14/13 - **Exam One**

Week Three

- Monday 6/17/13 - *Linear Algebra and Matrices: Matrix Algebra and Inverses*

- Tuesday 6/18/13 - *Linear Algebra and Matrices: Determinants and Eigenvalues*

- Wednesday 6/19/13 - *Solutions to Systems 1st Order Linear ODEs: Distinct Real Eigenvalues*

- Thursday 6/20/13 - *Solutions to Systems 1st Order Linear ODEs: Complex Eigenvalues*

- Friday 6/21/13 - *Solutions to Systems 1st Order Linear ODEs: Repeated Eigenvalues* **HW 3 Due**

Week Four

- Monday 6/24/13 - *Theory of 2nd Order Linear Equations, 2nd Order Homogeneous Linear Equations w/ Constant Coefficients*

- Tuesday 6/25/13 - *2nd Order Linear Equations w/ Variable Coefficients: Method of Undetermined Coefficients*

- Wednesday 6/26/13 - *2nd Order Linear Equations w/ Variable Coefficients: Variation of Parameters*

- Thursday 6/27/13 - *Review* **HW 4 Due**

- Friday 6/28/13 - **Exam Two**

Week Five

- Monday 7/1/13 - *Inhomogeneous 2nd Order Linear ODEs*

- Tuesday 7/2/13 - *Numerical Methods for 2nd Order Linear ODEs*

- Wednesday 7/3/13 - *Nonlinear ODEs: Autonomous Systems and Equilibrium Solutions*

- Thursday 7/4/13 - *Nonlinear ODEs: Almost Linear Systems, Linear Approximations*

- Friday 7/5/13 - **HW 5 Due**

Week Six

- Monday 7/8/13 - *Nonlinear ODEs: Phase-Plane Portraits, Periodic Solutions, and Limit Cycles*
- Tuesday 7/9/13 - *Laplace Transforms: Definition and Examples w/ Elementary Functions*
- Wednesday 7/10/13 - *Important Properties of Laplace Transforms, Inverse Laplace Transforms*
- Thursday 7/11/13 - *Review* **HW 6 Due**
- Friday 7/12/13 - **Exam Three**

Week Seven

- Monday 7/15/13 - *More Fun w/ Laplace Transforms*
- Tuesday 7/16/13 - *Solving ODEs w/ Laplace Transforms*
- Wednesday 7/17/13 - *Solving ODEs w/ Laplace Transforms (cont'd)*
- Thursday 7/18/13 - *Impulse Functions*
- Friday 7/19/13 - *Convolutions* **HW 7 Due**

Week Eight

- Monday 7/22/13 - *Special Topics: Power Series Solutions*
- Tuesday 7/23/13 - *Special Topics: Chaos and Strange Attractors*
- Wednesday 7/24/13 - *Review* **HW 8 Due**
- Thursday 7/25/13 - *Review*
- Friday 7/26/13 - **Final Exam**