Modified: *Sunday, 10Jan2021*

Course: Spr2021: MAP2302 3148 (14887) Elem.Diff.Eqns MWF6 [12:50-13:40] Mat116 *Prof. King*
Course: Spr2021: MAP2302 9826 (27188) Elem.Diff.Eqns MWF6 [12:50-13:40] ONLINE *Prof. King*

DiffyQ

(*Nostalgic?* See the 2020g and 2019g and 2018t and 2018g, 2017t and 2015t, 2015g, 2014t pages [18 exams], as well as the 2013t, 2004g, 2003g, 1994 page [18 exams].)

WELCOME

Our **Teaching Page** has useful information for students in all of my classes. It has **my schedule**, LOR guidelines, and **Usually Useful Pamphlets**. One of them is the *Checklist* **(pdf)** which gives pointers on what I consider to be good mathematical writing. Further information is at our class-archive URL (I email this private URL directly to students).

Assignment for Add/Drop week

- *In order to determine what you need to review over the weekend, please use 80 minutes do to as many problems as you can from this **self-test of prerequisite knowledge**. Then use the internet and your calculus textbook to grade yourself. This will help you determine what you need to review.*

- *Can you solve all of these*: A **more extensive self-test of prerequisite skills?**

Textbook: *Fundamentals of Differential Eqns with Boundary Value Problems, (7th edition). **Author**:* Nagle, Saff & Snider. [*While that is the official textbook, you may use the 6th, 7th,8th, or 9th editions.*]

[We will also use Wikipedia and perhaps other online sources.]

Resources

- *Current assignment:* The Math-Greek alphabet (pdf).

- *Current assignment:* Learn the abbreviations on the first page of the below *DiffyNotes*.

- *Current assignment:* Peruse our **DiffyNotes** [of Prof.K] **(pdf)**. [] **UPDATED** *We'll use these for class lectures. Our textbook will be used for reading assigments and as a problem-reservoir.*

- *Near future:* W: (skim) ODE. W: (skim) Linear DE. W: SoV W:(skim) Differential Eqn.

- *Future:* Wikipedia: W:Complex number and W:Exponential function.

- *Distant future:* W: FTODE, Picard-Lindelöf theorem.

- *Distant future:* The useful Euler-Mascheroni constant and Gamma (pdf). See also W: Gamma fnc and Euler's constant. A place where the Polor-coordinate Trick is used, is the normalizing constant of the Gaussian distribution.
  For the curious: The Gamma fnc, and Volume of the n-ball (pdf).

- *Distant future:* The **Laplace transform** (pdf) has an example, a simplification of tapping on a bell. Also available is a small **Table of Laplace transforms** (pdf).

DfyQ examish stuff

- **Important:** *At home, please use 80 minutes take this **Sample exam of prerequisite knowledge (pdf)**. Then use your Calculus text to grade yourself. This will help you know what you need to review.*

JK Home page