DO NOT LOSE THIS SHEET!!!

The University of Memphis
Department of Mathematical Sciences

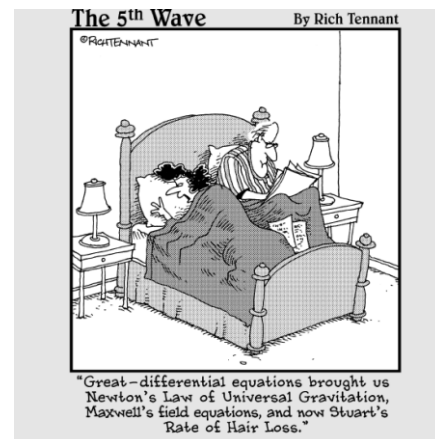|		
MATH 3120-002	Differential Equations	Spring 2015

Instructor: Dr. Thomas Hagen, Professor
367 Dunn Hall, Phone: 678-2481
Email: thagen@memphis.edu

Office Hours: By appointment TR 8:45am to 9:30am in 367 Dunn Hall
(If you show up without letting me know ahead of time, I might not be in my office

The 5th Wave   By Rich Tennant

"Great-differential equations brought us Newton's Law of Universal Gravitation, Maxwell's field equations, and now Stuart's Rate of Hair Loss."

Class Time/Location: TR 9:40am to 11:05am in 225 Dunn Hall

Course Description: Differential equations are the mathematical language in which the laws of nature are expressed. Understanding how to solve and characterize solutions of differential equations is fundamental to contemporary science and engineering. This course provides a first introduction to this omnipresent field of analysis.

Text: **Notes on Diffy Qs – Differential Equations for Engineers** by Jiří Lebl, 20 October 2014 edition (or newer)
Available for free download at www.jirka.org/diffyqs/
If needed, I will make the book available online myself.

Contents: Selected topics from Chapters 1, 2, 3, 6, 7

Prerequisites: MATH 1920 or MATH 2421
Each participant must understand basic calculus, vector operations, elementary matrix methods, the limit definition of the derivative, the differential, and power series. Proficiency in integration, algebra, and trigonometry is also required.

Homework/Text: Homework will be assigned regularly and must be done consistently. Homework assignments are your principal guide for the types of problems to expect on tests. The textbook must be read carefully. **It is your responsibility to read every section of the text covered, even if no reading assignment was given. Some examples and calculations in the text will be omitted. However, it will be assumed that you have read and familiarized yourself with this omitted material.**

December 8, 2014

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Material: A ruler is needed for graphing. Pencils and eraser are recommended. A scientific, non-CAS calculator is needed for numerical work. The TI-83/84 is permitted. The TI-89, e.g., is not permissible.

Attendance: Attendance is crucial, so do not miss class. Being late is rude and interrupts class. Attendance can be recorded directly or indirectly and factored into your final grade. Turn of all cell phones during class.

Grading:

Mid-term Tests 1-4	-	200	points
Final Exam	-	100	points
Total	-	300	points

Each mid-term test will last about 45 minutes and will commence at the beginning of class. **Be advised:**
- **Make-up/late work will not be accepted.**
- **No additional assignments will be given.**

Missed tests/assignments cannot be made up and count as zero. If you miss a mid-term test for any reason (such as sickness, family emergency, religious observance or job interview), it will count as zero. However, your lowest test grades will be replaced by your score on the final exam (if this score is higher).

Performance in the classroom **may** be taken into account for those on the borderline of two grades at the instructor's discretion. The plus minus system will be used in assigning grades. Thus, e.g., C+, C, and C- will all be possible grades.

Grade scale:

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
96%	91%	86%	81%	76%	71%	66%	61%	56%	51%	41%	<41%

Test Schedule:
(tentative)   Feb. 10, March 3, March 31, April 21
The final exam is scheduled for May 5, 10:30am - 12:30pm.
Any changes will be announced in class ahead of time.
Should there be a cancellation for all or part of a class for which a mid-term test is scheduled or work is due (e.g. because of inclement weather), the test date/due date changes **automatically** (without an announcement) to the next regular class meeting.

December 8, 2014