

**Syllabus**  
**Ordinary Differential Equations**  
**MATH 3303-001**  
**Fall 2017**

**Instructor:** Dr. N. S. Hoang

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Office: Boyd 324

Office phone: 678-839-5336.

Office hours: MWF: 9:00–9:50 AM, 10:50–11:40 AM.

**Class meeting time:** MWF: 09:55 am - 10:45 am

**Class room:** Paffrd 208.

**Prerequisites:** Grade of C or better in Calculus II.

**Text:** *Differential Equations with Boundary-Value Problems*, 8th Edition, Dennis G. Zill and Warren S. Wright, Brooks/Cole, ISBN: 978-1-111-82706-9.

**Use of calculators:** No calculator is allowed during exams.

**Grading:** Grades are based on a total of 700 pts given as follows

Total	Homework	Quizzes	Exam 1	Exam 2	Exam 3	Final Exam
700 pts	100 pts	100 pts	100 pts	100 pts	100 pts	200 pts

**Exams:** There are three midterm exams, given during the regular lecture time. The dates for midterm exams are September 6, October 2, and October 30. Final exam is scheduled on Wednesday, Dec 06 from 8:00 AM–10:00 AM and is a comprehensive exam.

**Homework:** A list of homework assignments will be provided. Homework will be scaled to count one hundred points.

**Quizzes:** Quizzes will be given during class lectures.

**Attendance:** Students are expected to attend and fully participate in all classes. Attendance is recorded at random dates during the semester.

**Common Language for Course Syllabi:** Students, please carefully review the following information at the link <https://www.westga.edu/student-services/counseling/assets-counseling/docs/common-language-for-course-syllabi.pdf>. It contains important material pertaining to your rights and responsibilities in this class. Because these statements are updated as federal, state, university, and accreditation standards change, you should review the information each semester.

**Withdrawal Policy:** The deadline for an automatic W withdrawal is: September 30th. For more information about withdrawal policy, please read the information at the link

<https://www.westga.edu/student-services/registrar/drop-add-and-withdrawal.php>

**Make-Up Work:** There are NO make-up grades for ANY reason. Students having an absence for any reason on the day homework or a quiz is due must complete the assignment on time online. Students having an unexcused absence on the day of a graded assignment will receive a grade of zero for that assignment. Students having an excused absence on the day of a test will have their test average entered for the missed grade. Absences must be excused before they occur except in extraordinary cases, such as active military duty, jury duty, or hospitalization. Being sick, short of being hospitalized, is not an excuse. If you anticipate being absent from class for a religious holiday, it is your responsibility to notify me in advance.

## Learning out comes

Students should be able to demonstrate

1. The ability to determine if a first order initial value problem (IVP) is guaranteed to have a unique solution.
2. The ability to solve first order IVPs by using techniques such as separation of variables, integrating factors, and realization of exactness.
3. The ability to solve higher order IVPs involving constant coefficients by using Laplace Transforms, undetermined coefficients, and variation of parameters.
4. The ability to find equilibrium solutions of differential equations and their stability using a phase plane analysis.
5. The ability to solve physical problems from sciences evolving first order IVPs.
6. The ability to solve systems of first order linear ordinary differential equations (ODEs) with constant coefficients using techniques from Linear Algebra in addition to Laplace Transforms.
7. The ability to do a phase plane stability analysis of equilibrium solutions to linear systems of ODEs.

## TENTATIVE SCHEDULE

Week	Day	Date	Section
1	Wed	Aug 9	1.1-1.3
2	Fri	Aug 11	1.1-1.3
2	Mon	Aug 14	2.2
	Wed	Aug 16	2.3
	Fri	Aug 18	2.4
3	Mon	Aug 21	2.5
	Wed	Aug 23	2.6
	Fri	Aug 25	3.1
4	Mon	Aug 28	3.2
	Wed	Aug 30	4.1
	Fri	Sep 1	REVIEW
5	Mon	Sep 4	LABOR DAY
	Wed	Sep 6	TEST 1
	Fri	Sep 8	4.1
6	Mon	Sep 11	4.2
	Wed	Sep 13	4.3
	Fri	Sep 15	4.4
7	Mon	Sep 18	4.5
	Wed	Sep 20	4.6
	Fri	Sep 22	4.7
8	Mon	Sep 25	4.8
	Wed	Sep 27	5.1
	Fri	Sep 29	REVIEW
9	Mon	Oct 2	TEST 2
	Wed	Oct 4	5.1
	Fri	Oct 6	FALL BREAK-NO CLASS
10	Mon	Oct 9	5.2
	Wed	Oct 11	5.3
	Fri	Oct 13	
11	Mon	Oct 16	6.1
	Wed	Oct 18	6.2
	Fri	Oct 20	6.3
12	Mon	Oct 23	7.1
	Wed	Oct 25	7.2
	Fri	Oct 27	REVIEW
13	Mon	Oct 30	TEST 3
	Wed	Nov 1	7.3
	Fri	Nov 3	7.4
14	Mon	Nov 6	7.5
	Wed	Nov 8	7.6
	Fri	Nov 10	8.1
15	Mon	Nov 13	8.2
	Wed	Nov 15	8.2
	Fri	Nov 17	8.3
16	Mon	Nov 20	Thanksgiving
	Wed	Nov 22	Thanksgiving
	Fri	Nov 24	Thanksgiving
17	Mon	Nov 27	8.4
	Wed	Nov 29	REVIEW
	Fri	Dec 01	REVIEW
	Wed	Dec 06	FINAL: 8:00-10:00 AM