

Differential Equations (MATH 30613-015) in Fall 2013

Room WIN 169	Time TuTh 9:30–10:50 AM
Instructor Loren Spice	E-mail l.spice@tcu.edu
Office TUC 315	Office hours M 6–7:30 PM (shared) TuTh 8:30–9:20 AM F 9:30–11 AM (shared) and by appointment
TCU Online tcuglobal.edu	

Textbook Boyce and DiPrima, *Elementary differential equations and boundary-value problems* (10th edition).

Attendance Attendance is **required**. You **must** sign the attendance sheet **each class**, or you may be marked absent. Attendance can earn up to 1 bonus point on each exam. See the expanded syllabus on the course web-page.

Grading Course components will be weighted as follows:

Homeworks	Midterms	Final
25%	15% each (45% total)	30%

You can see your current weighted percentage on the course web-page at any time. If you think that a grade has been mis-computed, you **must** talk to me within 1 week of its being recorded.

Your course grade will be determined as follows.

Min. %	Min. Grade	Min. %	Min. Grade	Min. %	Min. Grade
90%	A-	94%	A		
80%	B-	84%	B	87%	B+
70%	C-	74%	C	77%	C+
60%	D-	64%	D	67%	D+

If you have earned less than 60% of the course credit, then you may receive an F. Exam and course grades may be curved.

Course goals

- Understand why differential equations are an appropriate tool for modelling real-world problems.
- Create and understand mathematical models of physical phenomena.
- Develop tools and techniques for solving differential equations, and interpreting their solutions.

We will also explore the theoretical, mathematical underpinnings of the subject of differential equations.

We will try to cover most of Chapters 1–3 and 6. If time permits, we will also cover parts of Chapters 4 and 7. Specific topics include the method of integrating factors; characteristic polynomials; the methods of undetermined coefficients and variation of parameters; and the Laplace transform.

See reverse for course details.

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Academic Conduct You must comply with the University's academic-conduct policies at http://www.catalog.tcu.edu/current_year/undergraduate/1411.htm. See the expanded syllabus on the course web-page.

Calculators and technology A graphing, but not a symbolic, calculator is **required** for the class (although it may be **forbidden** for selected problems). See the expanded syllabus on the course web-page for details about permitted calculators.

Homeworks Homeworks will be posted on the course web-page. Homeworks must be handed in to me **in person**. If you are not able to do so, then you may have a friend hand it in, or e-mail me a scanned copy by the due time. If an Official Absence will interfere with a due date, please let me know **in advance** so that we can make an appropriate adjustment. **Late** homeworks will not be accepted.

You may work with classmates on the homeworks, but you must write up your own work **independently**. Homeworks are due by the **end** of office hours or the **beginning** of class on the class after they are assigned. The lowest homework grade will be dropped.

You should budget about **10 hours** per week for reviewing notes and doing homework. You **cannot** earn better than a C, regardless of exam scores, without satisfactory homework and quiz grades.

Midterms Midterms will be held in class on Thursdays: **September 19; October 17; and November 14.**

Re-scheduling of exams will be provided **only** in case of an Official Absence; or at my discretion, for extreme, documented reasons. In either case, you must tell me **one week** in advance, or as soon as is reasonably possible.

The final exam will be **Thursday, December 12, 8–10:30 AM**, in a location to be announced. The time is set by the registrar, and **not** subject to change. **Travel plans** are not a sufficient reason to miss a final.

Disability policy This course complies with the University disability statement at <http://www.ugradcouncil.tcu.edu/forms/DisabilitiesStatement.doc>. See the expanded syllabus on the course web-page.