

LECTURE: MW 2:00 – 3:20 p.m. in WH 216

INSTRUCTOR: William Cherry

OFFICE: GAB 405

PHONE: 565-4303

E-MAIL: [wcherry@unt.edu](mailto:wcherry@unt.edu)

WEB PAGE: <http://wcherry.math.unt.edu/math3740>

OFFICE HOURS: Mondays 12:30–1:30;

Tuesdays & Thursdays 1–3;

Wednesdays 9:30–10:30, 12:30–1:30, and 4–5.

Students unable to attend the above scheduled office hours or needing extra help are welcome to make an appointment with me at other times, including evenings and weekends.

PREREQUISITE(S): Math 2700 and Math 2730.

TEXTS: J. Marsden and A. Tromba, *Vector Calculus*, Freeman and Company, 2012.

GRADES: There will be five components to your final grade, weighted as follows:

Homework: 20%

Quizzes: 10%

Midterm Exams: 40% (20% each)

Final Exam: 30%

IMPORTANT DATES:

MIDTERM EXAMS: Monday, October 9 and Monday, November 20

FINAL EXAM: Monday, Dec 11, 1:30 – 3:30 p.m.

**Students must plan to attend the midterm and final exams.** Makeup exams will be given only in extremely exceptional circumstances, such as serious illness, and must be arranged in advance.

ACADEMIC DISHONESTY: Cheating on exams is a serious breach of academic standards and will be punished severely. UNT's full policy on academic integrity can be found at:

<http://vpaa.unt.edu/academic-integrity.htm>.

### Student Perceptions of Teaching (SPOT)

The SPOT evaluation is a requirement for all organized classes at UNT. This survey will be made available to you at toward end of the semester, providing you a chance to comment on how this class is taught. Please be sure to complete this important survey for all of your classes.

### Where to get help

Math 3740 is NOT one of the courses eligible for math lab tutoring. If you are having trouble, please make full use of your instructor's office hours. If the scheduled office hours are not convenient for you, make an appointment for another time. Working together with other students is also a good way to get help, but just be sure you are also able to work alone when it comes time to take the tests and quizzes.

*Note: It is the responsibility of students with certified disabilities to provide the instructor with appropriate documentation from the Dean of Students Office*

### Tentative Course Outline (subject to change)

The following is intended to provide a rough outline of what will be covered when in class. Depending on how quickly students master certain concepts, more or less time may be devoted to particular topics than indicated here.

Monday	Wednesday
8/28: Review §1.1–1.5	8/30: Functions & Continuity §2.1–2.2
9/4: <b>Labor Day</b> No Class	9/6: Differentiation §2.3
9/11: Paths & Curves §2.4	9/13: Derivatives & Gradients §2.5–2.6
9/18: Taylor's Theorem §3.1–3.2	9/20: Optimization §3.3
9/25: Lagrange Multipliers §3.4	9/27: Implicit Function Theorem §3.5
10/2: Motion & Length §4.1–4.2	10/4: Vector Fields §4.3
10/9: <b>TEST 1</b>	10/11: Divergence & Curl §4.4
10/16: Integration §5.1–5.3	10/18: Integration §5.4–5.5
10/23: Change of Variables §6.1–6.2	10/25: Change of Variables §6.3
10/30: Path & Line integrals §7.1–7.2	11/1: Surfaces & Surface area §7.3–7.5
11/6: Surfaces & Fields §7.6	11/8: Applications §7.7
11/13: Green's Theorem §8.1	11/15: Stokes's Theorem §8.2
11/20: <b>TEST 2</b>	11/22: Practice and Catch-up
11/27: Conservative Fields §8.3	11/29: Gauss's Theorem §8.4
12/4: Differential Forms §8.5	12/6: Review
12/11: <b>FINAL</b> <b>1:30–3:30</b>	

**Homework** will be due about once per week. Homework must be turned in at the **beginning of class** (or as you walk in the door) on the day it is due, or it will be considered late. Late homework is generally not accepted.

We will have **quizzes** about once every two weeks. Quizzes will be announced in advance.