CLASS INFORMATION:
  Course Number: Math 283 Section 1001
  Lecture Times: Tu Th 5:30 – 7:15   F 5:30-6:30
  Lecture Location: CBC C-148

PROFESSOR INFORMATION:
  Name: Gary Phelps
  Office Location: CDC, Building 7, Room 710
  Office Phone: (702) 895-5173
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  Math Dept Phone: (702) 895-3567
  Web Page: http://faculty.unlv.edu/gphelps
  Office Hours: MW 2:30-4:00 pm  (no appointment needed)
  Graduate assistants:

COURSE DESCRIPTION: Vectors; differentiation and integration of vector valued functions; multivariable calculus; partial derivatives; multiple integrals and applications; line, surface and volume integrals; Green’s theorem; divergence theorem; and Stoke’s theorem.

PREREQUISITES for the COURSE: C or better in UNLV Math 182 or equivalent

COURSE MATERIALS:
  Required Text: Essential Calculus: Early Transcendentals 2nd edition by J. Stewart
  Chapters 10, 11, 12, 13
  Webassign

TOPICAL OUTLINE:

topics: vectors and vector functions, polar coordinates, calculus on vector functions, dot products and cross products, lines and planes, curvature, multi-variable functions, partial derivatives, optimization, tangent planes, double integrals.
EVALUATION AND GRADE ASSIGNMENT:

<table>
<thead>
<tr>
<th>Weight</th>
<th>Component</th>
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<tbody>
<tr>
<td>10%</td>
<td>Quiz Average and Homework</td>
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<tr>
<td>10%</td>
<td>WebAssign Average</td>
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<tr>
<td>45%</td>
<td>Test Average</td>
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<tr>
<td>35%</td>
<td>Cumulative Final Exam*</td>
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* Final Exam Given
  Thursday, May 10 6 PM - 8 PM

Letter grades will be assigned according to the scale: A 92-100, A- 90-91.9, B+ 87-89.9, B 82-86.9, B- 80-81.9, C+ 77-79.9, C 72-76.9, C- 70-71.9, D+ 67-69.9, D 62-66.9, D- 60-61.9, F below 60.

LEARNING OUTCOMES:

Students develop skills in differentiation and integration needed to solve problems in 3-dimensional space. In particular the students will master the concepts of
• tangent and normal vectors, and their geometric and physical interpretations;
• partial derivatives, tangent planes, directional derivatives, and gradients, and how to compute them;
• three dimensional integration, and how to compute such integrals;
• vector fields, divergence, and curl, and how to calculate them.

COURSE SCHEDULE: See schedule or webpage for latest version and possible updater/changes.

CLASS POLICIES:

ATTENDANCE: Lecture attendance and homework completion have the highest correlation with the final grade as compared to other predictors of the final grade.

CALCULATORS:
You will need to use a calculator for some homework. For exams you will not use any electronic device, calculator, notes, formula sheets, or books for reference.

HOMEWORK: (All assignments are listed on the course website) Written homework is assigned for all sections covered in class. This assignment typically consists of selected problems at the end of each section in your text book, with a few supplemental problems. You are requested to do all the written homework soon after discussion in lecture and before the next class period. You may need to do more problems as needed for mastery of the material.

A subset of the written homework is assigned online via WebAssign. These exercises are typically a subset of the written problems assigned. You are required to do all these problems on or before the due date/time. Online homework covers all sections presented that week during lecture. You have multiple chances for submissions, the last submission will be the grade recorded.

Please note: At times there are computer/internet issues with your service provider and with WebAssign. You are urged to complete the assignment well before the due date and time to ensure proper posting of your grade. In addition, there will likely be a discrepancy between the final grade you see in WebAssign versus the grade you see in MyUNLV the grade in MyUNLV will be correct.

MAKE-UP POLICY: If you miss a class or recitation for any reason, you are responsible for all material covered, announcements made in your absence, and acquiring materials that may have been distributed in class. While many announcements, handouts and the like will be posted on the web, the professor makes no guarantees. It is your responsibility to have one or two contacts in the class/recitation. With prior approval and written documentation, it is at the sole discretion of the instructor to allow for written work to be completed prior to the scheduled date or time. Absolutely no make-ups will be allowed after written work is posted online or returned to your classmates.
WebAssign Homework. (estimated 31) Class key unlv 8060 2670 The three lowest scores will be dropped.

The following additional accommodations (a.k.a. “grade replace”) will automatically be made for any student whose average on non-exam materials is 75% or higher:

**Tests.** (estimated 3) Lowest exam score will be replaced by your final exam score (assuming it is higher).

ACADEMIC INTEGRITY/COLLABORATING: Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV’s function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: [http://studentconduct.unlv.edu/misconduct/policy.html](http://studentconduct.unlv.edu/misconduct/policy.html). Another example of academic misconduct is giving your clicker to another student to enter in answers in your absence.

While the UNLV Department of Mathematical Sciences encourages students to collaborate with peers, there is a distinction between verbal collaboration and copying. Specifically – it is not acceptable to “divide” work, and it is not acceptable to use another persons’ hard work (current or former student, teaching assistant, or tutor) as your own. Further, if you feel you are being misguided, it is your responsibility to report this to your instructor before testing, so they can correct the situation and give you proper clarification.

Academic dishonesty will not be tolerated; the College of Sciences emphasizes zero tolerance for academic dishonesty. All acts of academic dishonesty may result in: automatic zero on the assignment, F in the course, disciplinary review, revoking of degree, probation, expulsion, etc.

GRADING POLICY: I encourage you to review your exam and seek clarification on your mistakes, and you are welcome to do this at any time outside the classroom. Should you approach the professor in this manner, under no circumstances will your grade be adjusted downward.

Grading issues will not be reviewed in the lecture room.

FREE TUTORING: Free tutoring through the Department of Mathematical Sciences is available for this course. Call 895-3567 or email math@unlv.edu for more information, including location and hours. OR GO TO CDC Building 7 and GET HELP IMMEDIATELY! Additional free and pay tutoring is available in the Academic Success Center, [http://academicsuccess.unlv.edu/tutoring](http://academicsuccess.unlv.edu/tutoring).

UNIVERSITY POLICIES:
(1) The Disability Resource Center (DRC) determines accommodations that are “reasonable” in promoting the equal access of a student reporting a disability to the general UNLV learning experience. In so doing, the DRC also balances instructor and departmental interests in maintaining curricular standards so as to best achieve a fair evaluation standard amongst students being assisted. In order for the DRC to be effective it must be considered in the dialog between the faculty and the student who is requesting accommodations. For this reason faculty should only provide students course adjustment after having received this “Academic Accommodation Plan.” If faculty members have any questions regarding the DRC, they should call a DRC counselor.

UNLV complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The DRC is located in the Student Services Complex (SSC-A), Room 143, phone (702) 895-0866, fax (702) 895-0651. For additional information, please visit: [http://drc.unlv.edu/](http://drc.unlv.edu/).

(2) Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the
instructor no later than the last day of late registration of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university which could have been avoided. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=4&navoid=164

(3) The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/committees/copyright/.

(4) By policy, faculty and staff should e-mail students’ Rebelmail accounts only. Rebelmail is UNLV’s Official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students’ e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.

(5) One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student’s Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/

(6) The grade of I (Incomplete) can be granted when a student has satisfactorily completed all course work up to the withdrawal date of that semester/session but for reason(s) beyond the student’s control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. A student who receives an I is responsible for making up whatever work was lacking at the end of the semester. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the Inc grade.
Student's Responsibilities

- *Attend all lectures and breakouts.* Staying home and just reading the book or a friend's notes is a recipe for disaster. Experience shows that doing this will result in a poor grade or even failing the course.
- *Read the textbook and lab manual ahead of time.* To fully benefit from a lecture you must read the material in advance. Stay on top of the material, not behind. Your instructor will be counting on you to read the text. You may be required to learn topics which will not be formally discussed in the classroom.
- *Promptly do the homework problems.* Doing the homework is the best way to be prepared for the exams. You are encouraged to work with other students in the course.
- *Participate in class and breakouts.* Ask relevant questions and try to participate in any activities that your instructor initiates.
- *Seek help immediately if you are having problems understanding the material.* Attend your instructor's office hours.
- *Behave responsibly during the lecture.* Arrive to your seat on time and remain until the class ends. On the rare occasions when you must leave early or arrive late, please be as quiet as possible. Refrain from talking, reading the newspaper or otherwise distracting your classmates. Cellphone use, tablet or laptop use and texting are not allowed during the class.

Study Tips

- *Read the book.* Really really read it. While reading pay close attention to what you are understanding and not just to the mechanics of the examples.
- *Recopy your notes.* Speak to your instructor about things that are still unclear.
- *Participate in a study group.*

Academic Dishonesty

As you surely know violating the Code of Academic Conduct can have serious consequences. Some examples of cheating include:

- Submitting work that has been previously submitted in another term or another section of the course.
- Using information from another student or another student's paper on an examination which is supposed to be individual work.
- Altering a test after it has been returned, and then resubmitting the work claiming that it was improperly graded.
Calculus 3 Homework: See schedule or web page for latest version.

Chapter 10
10.1 Number 1-37 every 3rd
10.2 Number 2, 5-30, 33-37
10.3 Number 2-10, 14-39
10.4 Number 1-9, 13, 17-20, 25-41
10.5 Number 1-43, 47-52
10.6 Number 3-8, 11-30
10.7 Number 3-22, 33-52
10.8 Number 1-4, 9-10, 13-21, 23-27, 37-40
10.9 Number 1-25

Chapter 11
11.1 Number 1-11 odd, 13-35, 41-50
11.2 Number 3-28
11.3 Number 1-64
11.4 Number 1-6, 11-34
11.5 Number 1-30
11.6 Number 1-36
11.7 Number 1-28
11.8 Number 1-19, 29-39 odd, 42-44

Chapter 12
12.1 Number 7-26, 29-35
12.2 Number 1-12, 15-32, 43-48
12.3 Number 1-26
12.4 Number 1-16
12.5 Number 1-20, 23-42
12.6 Number 1-25, 28-30
12.7 Number 1-27, 37-39
12.8 Number 1-10, 15-21, 23-26

Chapter 13
13.1 Number 1-32
13.2 Number 1-22, 37-40, 43
13.3 Number 1-22
13.4 Number 1-21
13.5 Number 1-30
13.6 Number 1-4, 15-22, 29-44, 46
13.7 Number 1-31
13.8 Number 1-17