INSTRUCTOR: Anna Durakiewicz   MATH 264
OFFICE: Room 623 G   Calculus III HYBRID
CONTACT: Office: 505-662-0348   MEETING TIMES: M 1:45 -3.30 PM
                  e-mail: adurakie@unm.edu (preferred)
                  web: http://www.unm.edu/~adurakie/

LIVE OFFICE HOURS: M 12:45-13:45 PM, T 8:30-9:30 AM

Expect to do 2-3 hours of homework for every hour of class meeting time including watching and making notes from recorded (on average 9-15 hours per week).

Table of Contents

THE UNIVERSITY OF NEW MEXICO - LOS ALAMOS
COURSE SYLLABUS

Catalog Description

Vector operations, vector representation of planes and curves, functions of several variables, partial derivatives, gradient, tangent planes, optimization, multiple integrals in Cartesian, cylindrical and spherical coordinates, vector fields, line integrals and Green's theorem. Prerequisite: C (not C-) or better in Math 163.

OFFICE HOURS

UNM–Los Alamos: M 12:45-13:45 PM and T 8:30-9:30 AM
    .

INSTRUCTOR

Your instructor is Anna Durakiewicz. To contact me about this course, you may email me at adurakie@unm.edu (this is the preferred method), phone me at 505-662-0344, or at home at 505 672 9516. I will try to respond to any email message within 24 hours (usually quicker) except on weekends. If you have an issue that needs a quick response time, please give me a call.

I will be sending messages from time to time using the announcement and email within MyMathLab. This will be sent to the same email you use to register in MyMathLab**. Be sure to register using the email address you use/check frequently when registering for our course in MyMathLab.**

TEXT BOOK
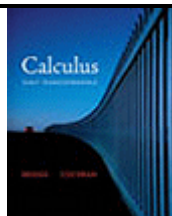
Textbook ISBN-13: 9780321570567: Calculus: Early Transcendentals 1/e by William Briggs and Lyle Cochran with MyMathLab access. (Chapters 11-14)

Course ID: durakiewicz53495

To register see the last page of this syllabus or go to MyMathLab at: http://www.coursecompass.com
Go to "How to Register" under STUDENTS title, or go to
http://www.coursecompass.com/html/student_how_to_register.html

ASSESSMENT

UNM-Los Alamos conducts ongoing assessments of student learning so that we can continue to improve the curriculum to give students the best education possible. The data collected for this assessment will be selected by the instructor and may come from exams, projects or other assignments. The assessment will focus on the learning outcomes listed in this syllabus. The data from this assessment will be collected and reported anonymously. Data summaries will be reported to the department, to the Office of Instruction, and posted on the web. The information collected will be used to make improvements to curriculum and teaching. This assessment is not a reflection of your grade and is not a grading exercise; it is simply an evaluation of how well students are mastering certain skills.

Course Objectives

1. To extend the students' familiarization with the calculus to more than one independent variable
2. To help students further develop their analytical thinking problem-solving skills in mathematics
3. To help students perceive the relationships between the various subjects covered in calculus rather than see calculus as a series of unconnected topics
4. To help the students recognize that each mathematics course builds upon past courses and to help them integrate their knowledge
5. To provide applications of the calculus to real world problems, including the proper use of units and dimensions that arise in the use of the calculus

Learning Outcomes:

At the conclusion of the course, students should be able to:
1. Manipulate vectors in 2- and 3-space, including vector representation of curves and surfaces, and perform dot product and cross product operations;
2. Recognize and develop the equations of lines and surfaces (planes, cylinders and quadrics) in 3-space;
3. Understand and compute the derivatives and integrals of vector functions;
4. Solve application problems in dynamics/kinematics;
5. Determine the principal unit tangent, normal and binormal vectors to a curve;
6. Compute arc length and curvature in 3-dimensions;
7. Demonstrate an understanding of the extension of the concepts of limit and continuity to functions of several variables;
8. Compute partial derivatives and differentials, including use of the chain rule, for multiple independent variables;
9. Demonstrate an understanding and use of directional derivatives and gradient vectors, and determine normal lines and tangent planes to a surface;
10. Demonstrate an understanding of extrema: optimization problems, Lagrange multipliers;
11. Demonstrate an understanding of the generalization of the definite integral to 2 and 3 independent variables;
12. Evaluate iterated integrals in Cartesian, cylindrical and spherical coordinates;
13. Solve application problems related to calculation of volume and mass properties;
14. Demonstrate an understanding of vector fields and how to calculate the divergence and curl of a vector field
15. Calculate line integrals in a plane;
16. Use Green's Theorem in a plane.
17. Use a Computer Algebra System (CAS) to solve multivariable vector calculus problems and to plot lines, planes, and general surfaces in 3-dimensions.

All these need to be done with at least 75% accuracy

Technical and Academic Support

Students may contact the UNM-LA Academic Support Center for help or tutoring in their coursework. See the ASC website at http://asc.unm.edu . Any questions related to course organization or requirements should be directed to the instructor.

Technical support is available at these sources:
- Phone: (505) 277-5757 (M-F 8:00 am – 5:00 pm) – IT support on main campus.
- Phone: (505) 277-0857 (M-F 8:00 am – 5:00 pm) – Blackboard Learn support on main campus.
- UNM Fast Info: http://fastinfo.unm.edu   (UNM searchable knowledge base)
- UNM-LA IT support: go to http://losalamos.unm.edu/campus-life/computing-services/index.html or email unmla-itsupport@unm.edu

ATTENDANCE

You are expected to attend all classes. If there are unusual extenuating circumstances, please discuss them with the instructor before the fourth absence to avoid instructor withdrawal. For each missed class the student will need to complete the quiz that contains questions from the missing material. The student needs to contact instructor to get the copy of the quiz.

Drop Policy

If students decide to drop the class, it is their responsibility to do so; they should be aware of University-wide posted deadlines for tuition refunds and mandatory assignment of grades. Students should not assume that the instructor will drop them before a deadline if they simply stop attending a live class or logging in to an online class.

Dropping a course may affect students' financial aid status and/or tuition refund. A drop will result in a W. Students who do not officially drop the class will receive the grade earned based on the syllabus grading criteria, which may be an F.

ONLINE LECTURES

It is a hybrid class which requires additional time of your work outside of the classroom. As part of the hybrid class activities you are required to watch video recording of the lectures before each class meeting. The lectures are available in MML under [Lectures recording] button. You need to click on the chapter and chapter sections scheduled for the next class meeting, watch YouTube recording making notes. The notes would be collected by the instructor as you **entry tickets** to the class and evaluated. It is important that you write down your questions. These questions would be addressed at the beginning of the class meeting.

HOMEWORK

Your homework is your most important effort in this class; homework is how you actually learn the material that will be on the quizzes and exams. You are expected to take notes from the recorded lectures, these count as the homework assignments. Expect to do 2-3 hours of homework for every hour of class meeting time (on average 10-15 hours per week). Keep all of your homework notes together in a folder so that if you are having trouble in the course, you can bring it with you when you go to see your instructor or get tutoring. Homework assignments will be completed within MyMathLab. This homework is 25% of your grade. Homework problems can be re-worked if you are not happy with your score. The homework has due dates for each assignment, but you may continue to work on the homework past the official due date with 10% penalty.

Although the homework assignments will never be closed to you, allowing you to complete these assignments at any time, if you do not stay up to date, you will likely be unable to complete the course in a satisfactory manner.   All the homework assignments are closed at the last day of instruction.

You can expect quizzes over homework, in-class exercises, and group work as well. Be sure to show all of your work in your homework journal. The process is just as important as the answer. For any work done on paper, including all in-class work, ANSWERS ONLY WILL RECEIVE NO CREDIT!!!

QUIZZES

Quizzes may be given in class from time-to-time. Sometimes these will be closed book quizzes, and sometimes they will take the form of a graded group exercise or worksheet. We will try to have one per week.   If helpful will be allowed to use your journal as reference, so please remember to write assignment numbers, problem numbers and show your work in your journals for use during these quizzes and group exercises.

CHAPTER TESTS

Tests should be taken on time with the class. If you have an unavoidable conflict, you must make arrangements with me before you miss a planned test. If you do not let me know ahead of time that you will miss a test, you may not be allowed to make it up. Being unprepared is not a reason to miss a test. You may retake any of the tests you wish for a maximum score of 75%. However, in order to retake a test, you must request access to a new test from your instructor. This will be entirely up to you; I will probably not remind you of this option again. All retakes must be completed before the final exam.

MAKE-UP POLICY

The homework has due dates for each assignment, but you may continue to work on the homework past the official due date with 10% penalty.

If you took the test in time and scored less than 75% you may retake the test, before the next test is given. The maximum score for the retake test would be 75%.

FINAL EXAM

There will be a comprehensive final exam given during the last week of the semester in December. It will contribute 25% to your final grade. **In order to pass this course you need to score at least 60 % from your final exam.**

GRADES

Your final grade will be calculated by using the following formula:

Homework, Lecture notes	25%
Quizzes	5%
Tests	45%
Final Exam	25%

The following letter grades will be assigned to you at the end of the semester according to your average:

A+	99–100	C+	77–79
A	94–98	C	74–76
A–	90–93	C–	70–73
B+	87–89	D+	67–69
B	84–86	D	64–66
B–	80–83	D–	60–63
		F	Below 60

CHEATING

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

Academic dishonesty includes, but is not limited to, dishonesty on quizzes, tests or assignments; claiming credit for work not done or done by others; and hindering the academic work of other students.

Cheating will not be tolerated. Do not do homework, quizzes or tests for another student, and do not ask anyone else to do your work for you. You may certainly work together or get help on homework, but you should complete your own work. Each instance of cheating will be dealt with on an individual basis with consequences that are appropriate.

COMPUTER ACCOUNT POLICY

All students are required to have a UNM campus account (NetID). Students will use this account to register for classes through MyUNM, http://my.unm.edu. This account is also used to read and send email (the UNM e-mail address looks like NetID@unm.edu), print transcripts, check financial status, and check degree progress.

Students are **required** to check their UNM email (LoboMail) periodically, as this is the main communication method used by the university. Students may forward their LoboMail to another email address; however, this is not encouraged by UNM and not supported by University IT personnel.
https://unm.custhelp.com/app/answers/detail/a_id/6701/kw/forward%20lobomail.

Students can access MyUNM by clicking on the "My UNM" link on either the UNM–Los Alamos web page (http://losalamos.unm.edu) or the main campus web page (http://www.unm.edu), or by typing in the web address http://my.unm.edu. Students must then login using their NetID and password.

From the UNM-LA campus, students can access MyUNM from public computers, from computers in computer labs, and from computers in the library. If students wish to use their own computers, they can connect to one of the UNM-LA Wireless networks. Instructions for accessing these are given here: http://losalamos.unm.edu/campus-life/computing-services/wireless-network.html.

Students should be aware of the computer use policies as they affect any aspect of their education at UNM-LA. See Computer Use Policy links on this page: http://losalamos.unm.edu/campus-life/computing-services/index.html.

COURSE EMAIL POLICY

I will generally be using the email address you enter into MyMathLab. Often, I will email corrections to your quizzes and tests. If you would like for me to return your papers to you in a more secure fashion, please let me know. Be sure to use an email address that you will be checking often, and to which no one else has access. **You are expected to respond to any email I send to you requesting information or feedback. Please do not ignore a message from me. This is the only way we have to communicate**. Students should allow the instructor 24 hours on weekdays and 48 hours on weekends to respond to email messages or phone calls. Students who receive emails from instructors should attempt to reply within 24 hours.

AMERICAN DISABILITIES ACT

In accordance with University Policy 2310 and the American Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as the instructor is not legally permitted to inquire. Students

who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Services at 505-661-4692 for additional information

NEEDED SUPPLIES

You will need the following to successfully complete this course:
- Computer and printer
- MyMathLab access
- Book (optional if you choose to use the e-book)
- Pencil & eraser for homework
- Spiral notebook to use as a homework notebook
- Spiral notebook to use for note taking
- Scientific Calculator

COURSE EVALUATION

Students will be requested to participate in a course evaluation near the end of the course. UNM-LA requests that all students participate, because the information they provide is helpful in improving courses for future students.

PARTING COMMENTS

My wish is for every one of you to be successful in this course. To work toward that end, I will do everything within my power to help you. Don't hesitate to ask for help. I am willing to help you at any time that I am available. I ask for your commitment to do everything you can to complete the course successfully. Remember you will receive the grade that you earn! GOOD LUCK!

Congratulations for making it all the way to the end of this syllabus. If you have any questions or issues send Anna Durakiewicz an email at adurakie@unm.edu
The next pages contain the schedule of topics and due dates.

Math 264
Tentative Schedule of Topics*

WEEK		MATERIAL TO BE COVERED
Week 1	**Jan 20**	
	Jan 22	Introduction to calculus III, Watch recording Sec 11.1-11,3
Week 2	**Jan 27**	Sections 11.1-11.3
	Jan 29	Watch the recording 11.4-11.6
Week 3	**Feb 3**	Sections 11.4-11.6
	Feb 5	Watch the recording 11.7-11.9
Week 4	**Feb 10**	Sections 11.7-11.9
	Feb 12	Review material for Chapter 11 (meeting in room 625)
Week 5	**Feb 17**	Test on Chapter 11
	Feb 19	Watch the recording 12.1-12.3
Week 6	**Feb 24**	Sections 12.1-12.3
	Feb 26	Watch the recording 12.4-12.6
Week 7	**March 3**	Sections 12.4-12.6
	March 5	Watch the recording 12.7-12.9
Week 8	**March 10**	Sections 12.7-12.9
	March 12	Review material for Chapter 12 (meeting in room 625)
Week 9	**March 17**	Spring Break
	March 19	Spring Break
Week 10	**March 24**	Test on Chapter 12
	March 26	Watch the recording 13.1-13.3
Week 11	**March 31**	Sections 13.1-13.3
	April 2	Watch the recording 13.4-13.7
Week 12	**April 7**	Sections 13.4-13.7
	April 9	Review material for Chapter 13 (meeting in room 625)
Week 13	**April 14**	Test on Chapter 13
	April 16	Watch the recording 14.1-14.3
Week 14	**April 21**	Sections 14.1-14.4
	April 23	Watch the recording 14.5-14.8
Week 15	**April 28**	Sections 14.5-14.8
	April 30	Revision for Chapter 14 (meeting in room 625)
Week 16	**May 5**	Revision for Final Exam
	May 7	Revision for Final Exam

Final Exam will be given May 12, 2013.

*This schedule is subject to change. The most recent version of the syllabus is in MML

MyMathLab®

Welcome Students!

MyMathLab is an interactive website where you can:
- Self-test & work through practice exercises with step-by-step help to improve your math skills.
- Study more efficiently with a personalized study plan and exercises that match your book.
- Get help when YOU need it. MyMathLab includes multimedia learning aids, videos, animations, and live tutorial help.

Before You Begin:
To register for MyMathLab you will need:

- ☑ **A MyMathLab student access code** (packaged with your new text, standalone at your bookstore, available at UNMLA Bookstore, or available for purchase with a major credit card at http://pearsonmylabandmastering.com/)

- ☑ **Your instructors' Course ID number:__** durakiewicz53495 **(no space between my name & the number)**

- ☑ **Your school's zip code:** 87544

- ☑ **A valid email address**

Student Registration:
- Go to http://http://pearsonmylabandmastering.com/ and click the **Register** button under Students.
- Review the **Before You Start** information to ensure you have everything you need to register; click Next.
- On the Course ID page:
  - Enter the Course ID and click on Find Course
  - Choose your enrollment method
    - If your student access code came packaged with your textbook, select Access Code.
      (Select "Buy Now" to purchase online access using your credit card)
    - Enter your student access code as displayed; use the tab key to move from box to box and use all **CAPITAL LETTERS** when entering the access code. Click Next.
- Please read all information in the License Agreement and Privacy Policy. Click on Accept if you agree to the terms.
- On the Access Information screen:
  - **If you have registered for other Pearson online products** and already have a login name and password, **select Yes**. Boxes will appear for you to enter your login information.
  - **If this is the first time you have registered for a Pearson online product, select No.** Boxes will appear for you to enter your desired login name and password. You may want to use your email address as your login name. If you do not use your email address, be prepared with a second login name choice if the one you first selected is already in use. Your login name must be at least 4 characters and cannot be the same as your password.
  - **If you aren't sure whether you have a Pearson account or not, select Not Sure**. Enter your email address and click Search. If you have an account, your login information will be sent to your email address within a few moments. Change your selection to Yes, and enter your login name and password as directed.
- On the Account Information page, enter your first and last name and email address. Re-type your email address to make sure it is correct.
- In the School Location section, select United States from the School Country drop-down menu. Enter your **school zip code**, and then select your school from the drop-down list.
- Select a security question and answer to ensure the privacy of your account. Click Next.
- When your registration process is complete you will see a confirmation screen. Click Log In Now to reach CourseCompass, and click Log In. Enter your login name and password and click Log In.

Logging In:
- Go to http://pearsonmylabandmastering.com/ and click on Log In. Enter your login name and password and click Log in.
- On the MyCourseCompass page, click on the course name to enter your instructor's course.
- The first time you enter your course from your own computer and anytime you use a new computer click the **Installation Wizard** on the announcements page or navigational button at the bottom left of the screen. The wizard (or Browser Check) will detect and then help you install the plug-ins and players you need to access the math exercises and multimedia content in your MyMathLab course. Follow the screen instructions to complete this process. NOTE: Check with your instructor to ensure all plug-ins are installed in the college computer labs.
- After completing the installation process and closing the wizard you will be on your course home page and ready to begin exploring your MyMathLab course.

Need help? Contact Product Support at http://pearsonmylabandmastering.com/students/support **for live CHAT, email or phone support; 1-800-677-6337**