

Course:	<b>Calculus III</b>
Professor:	Lyudmyla Barannyk
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Office Hours:	by appointment via Zoom
Book:	<i>Calculus</i> 8th edition by James Stewart

**Course website:** <http://www.webpages.uidaho.edu/~barannyk/Teaching/Math275.html>.

The course webpage has written lecture notes. Homework assignments, Matlab project, announcements and exam information will be posted in Canvas.

### Topics:

- Vectors and the Geometry of Space (Chapter 12)
- Vector Functions (Chapter 13)
- Partial Derivatives (Chapter 14)
- Multiple Integrals (Chapter 15)
- Vector Calculus (Chapter 16)

**Exams:** There will be three midterm exams and a final. Before each exam there will be a review session.

Exam 1: Friday, February 11

Exam 2: Tuesday, March 1

Exam 3: Friday, April 1

Final exam: Thursday, May 12

**Calculator Policy:** Calculators are not to be used on exams.

**Homework:** Written and online (WebAssign) homework will be assigned for each section we study. Students are expected to read the corresponding sections of the book and do the assigned homework in order to gain a better understanding of the course material. Please work on your homework before taking tests. The written part of your homework should be scanned using either scanners or phone apps like the iPhone Files app or the Genius Scan app, for example. You may use your tablets to write solutions as well. Please save your homework assignments as a single .pdf file for each assignment and upload to Canvas. There is a 3 business day grace period. Late homework after the grace period will not be accepted. Random written problems will be graded. Online homework scores will also be included in the overall homework score.

**Class key for WebAssign homework:** uidaho 1224 3190

Website: <http://webassign.net/login.html>

**Matlab Project:** There will be a brief introduction to Matlab. We will learn about how to use Matlab to visualize some geometric objects, in particular how to plot curves, surfaces etc.

Matlab project is available in Canvas. It is due by March 21.

**For Your Information:**

Matlab software is available through VLAB at <http://vlab.uidaho.edu>. Students are encouraged to contact IT help desk if help is needed to find where to store files and how to access Matlab as soon as possible. Some Matlab tutorials are available on the course web site.

Information Technology Services (ITS) Help Desk

Phone: 208-885-4357 (HELP); Email: [support@uidaho.edu](mailto:support@uidaho.edu)

Physical Address: Teaching Learning Center Room 128

IT help desk website: <http://www.uidaho.edu/its/>

**Course Grade:**

Exam 1	15%
Exam 2	20%
Exam 3	25%
Final	30%
Written, Online Homework and Matlab project	10%

Websites for help with MatLab.

- <http://www.mathworks.com/>
- <http://www.math.ufl.edu/help/matlab-tutorial/>
- <http://www.engin.umich.edu/caen/technotes/matlab.pdf>
- <http://www.me.pdx.edu/~gerry/MATLAB/>
- <http://www.engin.umich.edu/class/ctms/basic/basic.htm>

**Learning Outcomes for Math 275**

- The student will develop the ability to reason geometrically in dimensions higher than two, including mastery of basic notions of vector geometry and equations of lines, planes, and spheres.
- The student will be able to think geometrically about the graphs of functions of two variables, including the significance of partial derivatives, directional derivatives, and gradients.
- The student will learn to set up and evaluate integrals in two and three variables, including working with any of the standard coordinate systems.
- The student will understand correctly interpret the basic notions of vector calculus, including line integrals of vector fields and Green’s Theorem.

**DISABILITY SUPPORT SERVICES REASONABLE ACCOMMODATIONS STATEMENT**

Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through Disability Support Services, located in the Idaho Commons Building, Room 306, in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course. Contact DSS at 208-885-6307, email [dss@uidaho.edu](mailto:dss@uidaho.edu) or go to [www.uidaho.edu/dss](http://www.uidaho.edu/dss).