

Fall 2017

Math 222-01

9:00 MTWF
Sci A207

Instructor: Dale M. Rohm
Office: Sci D356

Office Hours: 11:00-3:00 on Wednesdays,
or by appointment.

Phone: (715)346-3798

e-mail: drohm@uwsp.edu

url: <http://www.uwsp.edu/mathsci/Pages/faculty/dRohm.aspx>

Text: Stewart, Multivariable Calculus, 8th ed.

ISBN: 978-1-305-26664-3

url: www.stewartcalculus.com

Course Description:

MATH 222. Calculus III. 4 cr. Introduction to solid analytic geometry; parametric and polar equations; vectors; differentiation of functions of several variables; multiple integrals using different coordinate systems; applications. **Prereq: 121.**

Math 222 - *Calculus III* is the final semester of a three-semester comprehensive coverage of the calculus of single and multivariable functions. It completes the study of differential and integral calculus begun in Math 120 and 121 with an overview of the multivariable calculus expected to be mastered by any undergraduate engineering or physical science student. **In order to be enrolled in Math 222, a student must have received credit for Math 121, or have been determined to be exempt from the Math 121 prerequisite using established department test-out policies.**

Technology Policy: You are required to have daily access to a graphing calculator for this course. Some assignments may require the use of a computer algebra system such as *Mathematica* or other on-line applications. I reserve the privilege of designating some or all questions of an examination or quiz as "non-calculator". When permitted, only one calculator may be used during any quiz or test. Sharing of calculators is prohibited. **Use of any computing device capable of remote transmission, including smart-phones, is expressly prohibited during any in-class portion of this course. Please turn your phones off, or put them in airplane mode, before class begins.**

Course Schedule: Throughout the semester, you will be expected to gain understanding of concepts and methods from calculus, and be able to apply them in order to answer specific questions from the physical and mathematical sciences. **Critical understanding of assigned readings and assignments will be necessary in order for you to receive a satisfactory grade.**

The course begins with an introduction to vector geometry as found in Sections 12.1-5. We then explore the calculus of curves in the plane as discussed in Chapter 10. This discussion concludes by exploring the calculus of curves described using polar coordinates. This material will be the focus of your first in-class examination.

Examination I: Friday, September 29, 2017.

The second portion of the course begins by exploring curves and surfaces in space. This material, found in Chapters 13 and Sections 14.1-4, is an introduction to the differential calculus of functions of several variables. This material will be the focus of your second in-class examination.

Examination II: Friday, October 27, 2017.

The third portion of the course completes the standard topics of differential calculus for functions of several variables found in Chapter 14, and then introduces double integration, Sections 15.1-3 of functions over regions of the plane. This material will be the focus of your third in-class examination.

Examination III: Wednesday, November 22, 2017. Be aware that this is the Wednesday before the Thanksgiving break.

The final topics of the course are found in remaining sections of Chapter 15 and perhaps a few topics from Chapter 16. This new material, as well as material from all previous parts of the course, will be assessed on your two-hour comprehensive final examination.

Final Examination: 14:45-16:45 on Tuesday, December 19, 2017.

Attendance Policy: Attendance is expected at every class meeting, the only exceptions are for legitimate medical, family emergency, or religious accommodation. Alternate or make-up examinations for religious or university-related accommodation require prior approval. If you miss class for any reason, it is your responsibility to promptly make up assigned work. Quizzes will be announced at least one class day before being given.

There is no easier way to earn an unsatisfactory grade in a university-level mathematics course than to skip class or fail to complete assigned exercises. Most weeks I will distribute a list of suggested problems; your responsibility as a student is to seriously attempt to complete these problems. When you identify difficulties, it is also your responsibility to immediately seek help from your textbook and classmates, me electronically or during office hours, or a university-approved tutor. In order to emphasize the importance of completing homework, I am instituting an extra-credit opportunity described below.

Evaluation and Grading: Your course grade will be determined by your performance on the scheduled examinations and approximately six quizzes given during the semester. Your score will be scaled according to the percentages shown below and totaled to give a numerical score. Final letter grades will be awarded according to the following curve.

<u>Grade Item</u>	<u>Weight</u>	<u>Percentages</u>	<u>Minimum Grade</u>
Examination I	20%	90-100	A-
Examination II	20%	75-89	B-
Examination III	20%	60-74	C-
Quizzes	10%	50-59	D
Final Exam	30%		

For every weekly homework assignment, you will have the opportunity to earn 1% extra credit added to your cumulative score. Each assignment will include a "Due-by" date and time. Assignments turned in when due will be graded quickly to receive a score of 0.0%, 0.5% or 1.0% percent extra credit according to MY evaluation of how complete your work was. You should understand that this is just ordinary homework; you are free to use whatever sources and help you normally would use.

At the end of the course, I reserve the right to raise a student's grade if it is my determination that numerical scores are not reflective of that student's actual comprehension. I will never give a grade lower than that determined by this stated criteria.

**The last day to add/drop a 16-week class is Thursday, Sept. 14.
The last day to drop a 16-week class with a "W" grade is Friday, Nov. 10.**

Welcome to Math 222 – Calculus III

My name is Prof. Rohm; I will be your instructor for this course.

I have posted a copy of my contact information on D2L. You can also find more information about me including my schedule for this semester at

- <http://www.uwsp.edu/mathsci/Pages/faculty/dRohm.aspx>
- <http://www4.uwsp.edu/math/drohms>

Here is the most recent catalog description for the course:

MATH 222. Calculus III. 4 cr. Introduction to solid analytic geometry; parametric and polar equations; vectors; differentiation of functions of several variables; multiple integrals using different coordinate systems; applications. **Prereq: 121.**

I have also posted a copy of the syllabus for this course up onto D2L. This includes a schedule for examinations and grading criteria for the course.

As a new or continuing UWSP student, you should be fully aware of your rights and responsibilities as a UWSP student. You can find these in the UWSP Community Bill of Rights and Responsibilities at

- <http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>

UWSP is committed to providing reasonable and appropriate accommodations to students with disabilities and temporary impairments. If you have a disability or acquire a condition during the semester where you need assistance, please contact the Disability and Assistive Technology Center on the 6th floor of Albertson Hall (library) as soon as possible. DATC can be reached at 715-346-3365 or DATC@uwsp.edu.

Thank you for reading this. I look forward to collaborating with you this semester as a member of the Pointer Community.



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