

Math 222 – Calculus III

Syllabus

Spring 2017

Professor Cindy McCabe Office: D354 Science Building Phone: 715-346-2085 Email: cmccabe@uwsp.edu www.uwsp.edu/mathsci	Office Hours 10:00-10:50 Mon. & Fri. 12:00-12:50 Tuesdays 1:00-1:50pm Thursdays 2:00-2:50pm Wednesdays <i>or by appointment</i>	Class meets M,Tu,W,F Sec. 1: 9:00 – 9:50am Science A225 Sec. 2: 1:00 – 1:50pm CCC 111
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Text (rental): *Multivariable Calculus*, 8th Edition, by James Stewart, published by Cengage, ISBN 978-1-305-26664-3. Topics include most of Chapters 10, 12, 13, 14, and 15.

Clicker (lease): This class uses Clickers to do interactive polling.

See details on the last page of this syllabus.

Optional Purchase Item: Online homework system *WebAssign*. Access code may be purchased, but wait to hear about the free trial period which will be discussed in class.

Calculators: Daily access to a graphing calculator is required. Sharing is not permitted.

Recommended calculators are the TI-83 or TI-84 models.

Computers, phones, Smartwatches, and calculators with a “QWERTY” keyboard, and any device with internet access are not allowed during exams or quizzes. They must be stowed out of sight, set to a silent mode, and not used at these times.

Prerequisite: Math 121: Calculus II

Learning Outcomes for this course: Students will be able to

- 1) work in 3 dimensions with equations of curves, surfaces, and their linearizations, and to find relationships between them, such as angle at an intersection
- 2) analyze qualities of curves, such as arc length, speed, and curvature
- 3) analyze qualities of surfaces, such as slope (from partial derivatives and gradients) and locations of maximum and minimum points
- 4) determine formulas for and values of areas, volumes, and other applications, using double and triple integrals in multiple coordinate systems
- 5) recognize and classify new problems into one or more known problem types
- 6) improve skills for communicating these concepts using mathematical notation and language and using English sentences, reaching a level above the beginner’s level

These objectives align with the following Program Learning Outcomes of the Department of Mathematical Sciences:

- 1) Problem Solving – Students can apply problem solving techniques in new situations.
- 2) Mathematical Techniques – Students will demonstrate a set of mathematical techniques and be able to use them in appropriate situations.
- 3) Patterns – Students can recognize, characterize, and generalize patterns using mathematical language.
- 4) Communication – Students can accurately interpret, clearly write, and orally express mathematical concepts in a variety of settings. This includes mathematical terminology, mathematical theorems, and mathematical proofs.

Desire to Learn (D2L): Homework assignments, grade information, and other class announcements can be found on the web in Desire to Learn (D2L),

<http://www.uwsp.edu/d2l/Pages/default.aspx> . To access D2L, use your regular campus logon ID and password, and then click on our course: Calculus III... under SEM II 2016-17.

Evaluation: Final course grades will be determined by the following:

- 100 points for in-class quizzes (best 4 at 25 pts each: lowest score is dropped)
- 34 points for participation with clickers
- 66 points for in-class work, possibly in groups, including HW checks (top 22 scores)
- 100 points for Exam 1 (in-class on Tues. Feb. 28)
- 100 points for Exam 2 (in-class on Tues. April 18)
- 130 points for the comprehensive Final Exam (Mon. May 15. See next page for time.)

Total: 530 points for this course

Course Grades at or above	93.3	90	86.7	83.3	80	76.7	73.3	70	66.7	60	%
	495	477	459	442	424	406	388	371	353	318	Points
will receive at least a grade of	A	A -	B +	B	B -	C +	C	C -	D +	D	

I reserve the right to exercise discretion in raising a student's grade if the final weighted average does not appear to reflect the quality of a student's work (for example, because of one low exam score early in the course). I will not use discretionary judgments to lower a student's final grade.

Five regular **quizzes** and three **exams** are listed in the schedule on the next page. The lowest one of the five regular quiz grades will be dropped at the end of the semester.

Almost every day, a list of **homework** exercises will be assigned. Each of these will be a *minimal* list of exercises which you need to understand in order to do well in this course. Homework is extremely important to your learning process, so make sure you stay on top of it and ask questions on whatever you don't understand. Doing well with your homework should also help your grades in the areas of clicker questions, quizzes, and exams.

There will be **homework checks** about twice a week which will be part of your semester grade. You have the option of doing most of the work for these through the online homework system *WebAssign* (at a cost of under \$40). Because not all exercises from the daily assignments are available online, there will be a small number which must be done on paper. Usually, your score on a homework check will be based on evaluations of *satisfactory*, *partially complete*, or *not done*. These homework checks and other in-class work such as worksheets will be worth up to three points each. The top 22 scores will be used in your course grade, leaving at least four extras for days you had to miss class or come to class unprepared.

Also, we will use **clickers** in class, approximately two days each week, with questions to check your knowledge and comprehension. Two points will be recorded for each correct response you give, and 1.6 points for each incorrect response. At the end of each day we use clickers, your points for each question asked will be averaged and a score out of 2 points will go in the grade book. There will be at least 22 days on which you can receive points for clicker questions, which means there are at least **five extra days** to cover days you missed or days you did not have a functioning clicker, or to make up for days with lower scores.

I do not anticipate other graded items, but if any arise, they will be announced in class and the course points will be adjusted.

Support is available. Ask questions as they arise. Come to see me before or after class, stop by during my office hours, or schedule an appointment with me for another time. One of the great parts of my job is working with conscientious students!

Approximate Weekly Schedule - Spring 2017

Week	Approximate text sections to discuss this week	Events this week
1. Jan. 23 – 27	10.1, 10.2	
2. Jan. 30 – Feb. 5	10.3, 10.4	Quiz 1 Friday
3. Feb. 6 – 10	10.5, 12.1, 12.2	
4. Feb. 13 – 17	12.2 – 12.4	Quiz 2 Friday
5. Feb. 20 – 24	12.5, 12.6	
6. Feb. 27 – Mar. 2	Review, 13.1	Exam 1 Tuesday, Feb. 28
7. March 6 – 10	13.2, 13.3	Quiz 3 Friday
8. March 13 – 17	13.3, 14.1	
March 20 – 24		<i>Spring Break – No classes</i>
9. March 27 – 31	14.1 – 14.3	
10. April 3 – 7	14.4, 14.5	Quiz 4 Wednesday
11. April 10 – 14	14.6, 14.7	
12. April 17 – 21	Review, 15.1, 15.2	Exam 2 Tuesday, April 18
13. April 24 – 28	15.2 – 15.5	
14. May 1 – 5	15.6 – 15.8	Quiz 5 Friday
15. May 8 – 12	15.8, 15.9, Review	

Final Exam Times: Section 1: Monday, May 15, Science A225, 12:30 – 2:30 pm
 Section 2: Monday, May 15, CCC 111, 10:15am – 12:15pm

Attendance is expected at every class meeting. It is the student's responsibility to make prompt arrangements with me for finding out what was missed and for making up any assigned work in the case of an absence. Quizzes and exams may not be made up unless arranged with me ahead of time, and then only for sufficient reason. If a dire emergency occurs, contact me as soon as possible to see if an exception is in order.

For information on **accommodations** available to students with disabilities, visit the Disability and Assistive Technology Center in room 609 of the Learning Resources Center (715-346-3365) or their website: <http://www.uwsp.edu/disability/Pages/default.aspx>.

All students are expected to know the UWSP student **responsibilities** found on the Dean of Students webpage. Academic Concerns are available at the link below. Information on Conduct Concerns and on Personal Concerns are also available on the Dean of Students site. <http://www.uwsp.edu/dos/Pages/Academic-Concerns%20for%20Students.aspx>.

Incompletes: A grade of incomplete may be given when circumstances arise which are beyond the student's control, and the student is unable to complete the course, AND the student is passing when the circumstances arise.

More details on Clickers: This class uses “Clickers” to do interactive polling. You are required to lease a clicker from the UWSP Help Desk for the semester. This semester lease fee (of about \$9) will be added to your UWSP student bill. *Your clicker may be used in any class that requires clickers for the semester. You do not need to lease more than one clicker in a single semester.*

You will need to have your **UWSP Student ID** with you in order to lease a clicker.

Clickers are available for check-out at UWSP’s IT Service Desk, located in room 027 in the basement of the ALB (the campus library, formerly called the LRC).

For their hours, see <http://www.uwsp.edu/infotech/Pages/ServiceDesk/default.aspx> .

Please bring your clicker to class every day except on exam days.

Returning clickers: Clickers must be returned to the IT Service Desk before the end of finals week. Students with unreturned clickers will be billed a late fee and/or may be billed the replacement cost of the clicker.

