# **Applied Calculus - Math 111, Section 1**

Professor Mick Veum	Class Meets	Office Hours
Office: B207 Science Building	M, Tu, W, Th,	Tues, Thurs 10:00 – 10:50 am;
Phone: 715-346-3095	in SCI A208	Immediately After Class
Email: <u>mveum@uwsp.edu</u>	4:00 – 4:50pm	or by appointment

**Text (rental):** Applied Calculus for the Managerial, Life, and Social Sciences: A Brief Approach, 10th Ed., by S. T. Tan (published by Cengage, ISBN: 978-1-285-46464-0). Topics include most of those in Chapters 1 - 6 and a selection from Chapters 7 and 8.

Calculators: A scientific calculator or a graphing calculator is required and should be brought to class daily. While I recommend a graphing calculator like the TI-83 or TI-84 models, I have to admit that I use a less powerful calculator, and I do my graphing on my laptop. You may not share resources during exams since I want to know what you can do and to allow each of you to show what you can do. Computers, phones, smartwatches, and devices 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.

Prerequisites: MATH 107 or suitable placement test score. May not take Math 225 for credit after successful completion of Math 120. Please verify that you have met the prerequisites so you are prepared to have a successful semester. Feel free to ask questions about your preparation or mathematical background.

#### **Learning Outcomes** for this course: Students will be able to

- 1) find limits, derivatives, and integrals from graphs and from formulas.
- 2) determine when limits, derivatives, or integrals are useful in applied problems.
- 3) use rules for finding derivatives and integrals and identify which rules apply.
- 4) identify features of a graph using derivatives.
- 5) optimize a function or value using derivatives, and construct a conclusion using quantitative justification.
- 6) use the Fundamental Theorem of Calculus to relate derivatives & integrals to each other.
- 7) find exact area under a curve and area between two curves, and estimates for these areas.
- 8) communicate their conclusions and justifications using mathematical notation and language and using English sentences. This includes the use of mathematical terminology.

## GEP (General Education Program) Quantitative Literacy Learning Outcomes

- Select, analyze, and interpret appropriate numerical data used in everyday life in numerical and graphical format.
- Identify and apply appropriate strategies of quantitative problem solving in theoretical and practical applications.
- Construct a conclusion using quantitative justification.

Communication: Announcements, homework assignments, course grade information, and other course information will be primarily in Canvas. If I am trying to communicate with an individual student, I will use often use email. Be in the habit of checking email in addition to Canvas. Email is a reliable way to contact me (myeum@uwsp.edu). To access Canvas, go to https://www.uwsp.edu, choose Canvas from the "Logins" dropdown menu, and use your regular campus login ID and password. Occasionally I may send the class an email also, using your uwsp address.

### **Evaluation:** Semester grades will be determined by the following:

20% for in-class guizzes (best 4 scores; lowest score is dropped)

13% for sustaining work, including HW checks (3 points each; top 20 scores used)

20% points for Exam 1 (in-class on *Tues. Mar 1*)

20% for Exam 2 (in-class on *Tues. April 19*)

27% for the comprehensive Final Exam (May 17. See last page for details.)

Total: 100% for this course (It all adds up!!)

Semester Grades at or above	93.3	90	86.7	83.3	80	76.7	73.3	70	66.7	60
this percentage										
will receive at										
least a grade of	Α	A -	B +	В	B -	C +	C	C -	D +	D

I reserve the right to exercise discretion in raising a student's grade if the final course grade 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 last page. They are also in the calendar in Canvas. The lowest one of your five regular quiz grades will be dropped at the end of the semester.

Most class days, a list of homework exercises will be assigned. You will then submit your work to Canvas. Each assignment is intended to 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.

There will be **homework checks** through Canvas two times per week. Your score out of 3 points for one of these "sustaining work" activities will be based on evaluations of Solid performance -3 points, Substantial work done -2 points, Partial understanding exhibited -1 point, or No contribution – 0 points. The homework check scores will be based on your Canvas submission work or your work done on paper, as well as your contributions during class that day. The top 20 scores for homework checks will be used in your course grade, leaving 10 days to allow for times you had to miss class or come to class unprepared.

**Attendance Policy:** 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 only be made up in special circumstances, and normally only if arranged with me ahead of time. If a medical emergency occurs, contact the Dean of Students as soon as possible (contact information below). They will then contact me and your other professors, and we can see if an exception is in order.

### Support is available:

- 1) Ask questions as they arise. See me 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!
- 2) Tutoring services are available. For mor information, see https://www.uwsp.edu/tlc/Pages/CAtutoring.aspx.

UWSP is committed to providing reasonable and appropriate accommodations to students with disabilities and temporary impairments. If you have a disability or acquire an impairment or injury during the semester and you need assistance, please contact the Disability and Assistive Technology Center as soon as possible, on the 6<sup>th</sup> floor of Albertson Hall (library), at 715-346-3365, or at DATC@uwsp.edu. You may also want to visit 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. Information on Academic Concerns is available at https://www.uwsp.edu/dos/Pages/stu-academic.aspx. Information on Conduct Concerns and on Personal Concerns are also available on the Dean of Students site.

**Incompletes:** A grade of incomplete may be given when circumstances arise which are beyond the student's control, and which result in the student being unable to complete the course. A grade of incomplete will only be used if the student is passing when the circumstances arise.

Weekly Schedule – Spring 2022

Week	Approximate text sections	Events this week				
	to discuss this week					
<b>1.</b> Jan. 24 – 28	1.1 - 1.4, 2.1					
<b>2.</b> Jan. 31 – Feb. 4	2.1 - 2.4	Practice Quiz Thursday				
<b>3.</b> Feb. 7 − 11	2.4 - 2.6	Quiz 1 Tuesday				
<b>4.</b> Feb. 14 – 18	2.6, 3.1, 3.2					
<b>5.</b> Feb. 21 – 25	3.3, 3.5, 3.6	Quiz 2 Tuesday				
<b>6.</b> Feb. 28 – March 4	Review, 4.1	Exam 1 Tuesday, March 1				
<b>7.</b> March 7 – 11	4.2, 4.3					
<b>8.</b> March 14 – 18	4.4, 4.5	Quiz 3 Tuesday				
March 21 – 25		Spring Break – no classes				
<b>9.</b> Mar 28 – Apr 1	5.1, 5.2, 5.4					
<b>10.</b> April 4 – 8	5.4 - 5.6	Quiz 4 Tuesday				
<b>11.</b> April 11 – 15	5.6, 6.1, 6.2					
<b>12.</b> April 18 – 22	Review, 6.3	Exam 2 Tuesday, April 19				
<b>13.</b> April 25 – 29	6.3 – 6.6					
<b>14.</b> May 2 – May 6	6.6, 7.4, 8.1	Quiz 5 Tuesday				
<b>15.</b> May 9 – 13	8.1, 8.2, Review					

**Final Exam Times:** Section 1 - Tuesday, May 17, 5:00 – 7:00 pm

Final Exams take place in our regular classroom, SCI A208.

