

Math 111: Applied Calculus

<p>Gretchen Renfert</p> <p>Office: B152 Science Bldg Phone: 715-346-2919 *Email: grenfert@uwsp.edu</p> <p>* preferred</p>	Office Hours	Course Meeting Times
	<p>Mon, Tues, Wed, Thur</p> <p>4:00 – 4:45 PM or <i>by appointment</i></p>	<p>Mon, Tue, Wed, Thur</p> <p>Sect 3: 11:00 - 11:50AM CCC111 Sect 4: 1:00 - 1:50PM SCI A201 Sect 6: 3:00 - 3:50PM SCI A207</p>

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.

Calculators: A graphing calculator can be a helpful tool for understanding concepts and working homework problems in this class. The TI graphing calculator such as the TI-84 is most familiar to me. Computers, phones, Ipads, and calculators with a “QWERTY” keyboard are not allowed during exams or quizzes. You will not always be allowed to use a calculator on all parts of quizzes and tests, so do not become too dependent on using them. You may not share a calculator with another student during a quiz or exam.

Prerequisites: Math 100 (College Algebra) or a suitable placement test score.

General Course Goals: In addition to achieving the Quantitative Literacy learning outcomes of the university’s General Education Program, students will develop communication skills, and problem-solving approaches to applied problems in fields such as biology, natural resources, and social science, using the central concepts of introductory differential and integral calculus.

Learning Outcomes: 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.

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

- 15 % for quizzes (your lowest score of the five quizzes will be dropped)
- 20 % for **Exam 1**, in-class on **Thursday, October 12th**
- 20 % for **Exam 2**, in-class on **Tuesday, November 7th**
- 20% for **Exam 3**, in-class on **Tuesday, December 5th**
- 25% for the **Comprehensive Final Exam** (See next page for date & time.)

100%

Course Grades (%) at or above	93	90	87	83	80	77	73	70	67	60
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.

Homework: Almost every day a list of homework problems will be given in class. Each of these will be a *minimal* list of problems which you need to understand in order to do well in this course. Doing the homework is extremely important, so make sure you stay on top of it and ask questions on whatever you don't understand. The homework will not be graded, but it is highly recommended that you practice doing problems on your own.

Attendance is expected at every class meeting. Everyone becomes ill sometimes. I expect you to make a reasonable effort to come to class. If an illness or an emergency require absence from class, I expect you to contact me immediately, preferably by email. I expect you to keep up with what is being taught by following D2L and your book and making every attempt to do the homework.

*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.

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 *IF* the student was passing when the circumstances arose.

Disability Accommodations: 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 by one or more of the following:

Visit their office on the 6th floor of Albertson Hall (the library), in room 609.

Call 715-346-3365,

email DATC@uwsp.edu

Visit their website: <http://www.uwsp.edu/disability/Pages/default.aspx> .

***Desire to Learn (D2L)** <https://uwsp.courses.wisconsin.edu/d2l/home>.

To access D2L, use your regular campus logon ID and password, and then click on our course:

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

All students are expected to know the UWSP Community **Rights & Responsibilities** and the **Student Academic Standards and Disciplinary Procedures** found on the Dean of Students webpage at <http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>.

Food/Beverage: I would prefer that you not eat in class. It is a distraction.

Cell Phones: I understand that occasionally you may want to take a picture of what is on the board. Other than that, cell phones should be silenced and put away once class begins.

For Academic Support:

- 1) Ask questions as they arise.
- 2) Come to see me before or after class, stop by during my office hours, or check to see if I am available at other times.
- 3) Tutoring services are available for this course. **The Math Help Room** in the Science Building offers free drop-in tutoring just off the round Main Lobby in the older part of building, room **SCI A113A**.
- 4) **The Tutoring Learning Center** (lower level of the **ALB**) offers support as well.

Tutoring

Tutoring in Math and Science (TIMS) in the Tutoring-Learning Center (TLC) offers free group and drop-in tutoring to support you in your math classes. In addition, TIMS offers the option for individual math tutoring sessions. The math tutors are UWSP students who have done well in their classes and who are here to share their successful study habits and math content knowledge to help others succeed. Discussing math concepts and practicing problems together clarifies and solidifies knowledge, and the tutors are eager to study with you. If you have questions about the schedule or would like to make an appointment, please visit the TLC in room **018 ALB**, email tlctutor@uwsp.edu or call **(715) 346-3568** for information.

Math Assistance – Fall 2017

Name	Day	Time	Location	Cost
Drop-in Tutoring (Begins Week 2 of the Semester)	Mon.– Fri.	8:00 a.m.-9:00 p.m. <u>See</u> http://www.uwsp.edu/tlc/Pages/dropInTutoring.aspx for specific math drop-in hours	Drop-In Tutoring Center, DUC 205	Free
Group Tutoring and Supplemental Instruction (SI)	Mon. – Fri.	<u>See</u> http://www.uwsp.edu/tlc/Pages/schedules.aspx	varies	Free
One-on-One Tutoring	Mon. – Fri.	By appointment only, limited availability	<u>Sign up</u> in TLC, ALB 018 Mon.-Fri. 9:00 am - 4:30 pm	May have a fee
The Math Room	Mon. – Thurs.	9:00 a.m. - 4:00 p.m. 7:00 p.m. - 9:00 p.m. http://www.uwsp.edu/mathsci/Pages/tutoring.aspx	SCI A113A	Free
The Math Pad (Math 90, 95, 100 and 107 only)	Mon. – Fri.	http://www.uwsp.edu/mathsci/Pages/tutoring.aspx	CCC 302	Free

Tentative Math 111 Schedule

Week	Dates	Sections	Topic
1	Sept 5 - 7	1.1 1.2	<i>Labor Day--No Class</i> Precalculus Review I Precalculus Review II
2	Sept 11 - 14	1.4 2.1 2.2	Straight Line Models Functions and their Graphs The Algebra of Functions
3	Sept 18 - 21	2.3 Quiz 1 2.4	Functions and Mathematical Models Wednesday, Sept 20th Limits Graphically
4	Sept 25 - 28	2.4 2.6	Limits Algebraically The Derivative
5	Oct 2 - 5	3.1 3.2 3.2 Quiz 2	The Basic Rules of Differentiation The Product Rule The Quotient Rule Thursday, Oct 5th
6	Oct 9 - 12	3.3 Exam #1	The Chain Rule Thursday, Oct. 12th
7	Oct 16 - 19	(3.4) 4.1 Quiz 3	(Marginal functions in Economics) Applications of the 1st Derivative Thursday, Oct. 19th
8	Oct 23 - 26	4.2 4.3 Quiz 4	Applications of the 2nd Derivative Curve sketching Thursday, Oct. 27th
9	Oct 30 - Nov 2	4.4, 4.5	Optimization
10	Nov 6 - 9	Exam #2 5.1 5.2	Tuesday, Nov. 7th Exponential functions Logarithmic functions
11	Nov 13 - 16	5.4	Differentiation of Exponential Functions
12	Nov 20 - 22 <i>Thanksgiving Week</i>	5.5 5.6	Differentiation of Logarithmic Functions Exponential Functions as Models
13	Nov 27 - 30	Quiz 5 6.1 6.2	Tuesday, Nov. 28th Antiderivatives and Integration Integration by Substitution
14	Dec 4 - 7	Exam #3 6.4	Tuesday, Dec 5th Fundamental Theorem of Calculus
15	Dec 11 - 14	6.5 6.6	Evaluating Definite Integrals Area between two curves
Final Exam	Section 4 Section 6 Section 3	8:00AM – 10:00AM 8:00AM – 10:00AM 10:15AM – 12:15PM	Tuesday, Dec. 19th Thursday, Dec. 21st Thursday, Dec. 21st

My Office/Schedule: Science Building, B152
(at the end of a little hallway at end of B/D hallway)

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-11:00	<i>Off Campus</i>				
11:00-11:50	Math 111.3 CCC 111	Math 111.3 CCC 111	Math 111.3 CCC 111	Math 111.3 CCC 111	
12:00-12:50	<i>Available by appointment</i>				
1:00-1:50	Math 111.4 SCI A201	Math 111.4 SCI A201	Math 111.4 SCI A201	Math 111.4 SCI A201	
2:00-2:50	<i>Available by appointment</i>				
3:00-3:45	Math 111.6 SCI A207	Math 111.6 SCI A207	Math 111.6 SCI A207	Math 111.6 SCI A207	
4:00-4:50	Office Hour	Office Hour	Office Hour	Office Hour	
5:00-6:00					

Emergency Response Guidance:

In the event of a medical emergency, **call 9-1-1** or use **Red Emergency Phone**.

Offer assistance if trained and willing to do so. Guide emergency responders to victim.

In the event of a tornado warning, proceed to the lowest level interior room without window exposure.

See www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx for floor plans showing severe weather shelters on campus. Avoid wide-span structures (gyms, pools or large classrooms).

In the event of a fire alarm, evacuate the building in a calm manner. Meet at _____.
 Notify instructor or emergency command personnel of any missing individuals.

Active Shooter/Code React – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Call 9-1-1 when it is safe to do so. Follow instructions of emergency responders.

See UW-Stevens Point Emergency Procedures at <http://www.uwsp.edu/rmgt/Pages/em/procedures> for details on all emergency response at UW-Stevens Point.

