

**Gannon University**  
**Math 140-03, Fall 2008**  
**Calculus 1**  
**MWF 1:25pm – 2:20pm**  
**Palumbo 2005**

**Instructor:** Dr. Geoffrey D. Dietz  
**Department:** Mathematics  
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**Office Phone:** 871-7595  
**Office Hours:** MWF 9am–11am or by appointment  
**Text:** **Essential Calculus, 1st Edition.** Stewart, 2007.  
**Web Site:** [http://www.gannon.edu/faculty\\_staff/faculty/dietz005/teaching/F08-140.html](http://www.gannon.edu/faculty_staff/faculty/dietz005/teaching/F08-140.html)  
**WeBWorK:** <http://webwork.gannon.edu>

1. **Credits and Prerequisites.** Math 140 is worth 3 credits. The prerequisite is Trigonometry.
2. **Course Content.** Limits; derivatives of algebraic and trigonometric functions; graphing; related rates; optimization problems. We will cover Chapters 1–3 from the text listed above. You are expected to read the assigned sections before every class and be prepared to answer questions.
3. **Course Outcomes.** Understand and explain the concepts of a limit and a derivative. Give examples of continuous and non-continuous functions. Calculate limits of functions numerically, algebraically, and by using theorems. Explain the connection between derivatives, slopes of tangents, and rates of change. Use the definition of the derivative to find rates of change. Compute derivatives of algebraic, trigonometric, and implicitly-defined functions using various differentiation formulas, including the product, quotient, and chain rules. Apply these techniques to problem solving in various scientific fields, including related rates and optimization problems. State and use the Mean Value Theorem. Employ a graphing calculator to study graphical and tabular data related to differential calculus.
4. **Evaluation.** Quizzes will be given approximately once per week and will always be announced ahead of time. Ordinarily make-up quizzes will not be offered, but the lowest quiz grade will be dropped. Homework problems from the text will be assigned in class. Although they will not be collected and graded, correctly solving these problems is essential to prepare for the quizzes and exams. Online homework (*WeBWorK*) problems will also be assigned and graded regularly. Further instructions, including due dates, can be found below or at the URL listed above. Three exams will be held during regular class time, and the dates may be subject to change. In addition to the regular exams and final exam, you must pass an online Gateway Exam covering differentiation techniques.
5. **Grading.** Final grades will be based on  
A: 90–100 B+: 85–89 B: 80–84 C+: 75–79 C: 70–74 D: 60–69 F: 0–59.  
The ranges may be widened at my discretion. The grades are weighted as follows:

Quizzes:	5%
WeBWorK:	6%
Gateway Exam (Th. 10/23 – Fri. 11/7):	7%
Exam 1 (Fri. 9/19):	18%
Exam 2 (Mon. 10/27):	18%
Exam 3 (Fri. 11/21):	18%
Final Exam (Wed. 12/17, 1:30–3:30pm):	28%
6. **WeBWorK Guidelines.** All graded homework in this course will be submitted using the *WeBWorK* system at <http://webwork.gannon.edu>. To log in initially, use your Gannon network ID (e.g., last-name001) as the Username and your 7-digit student ID number as the Password. After logging in the first time, you should change your password to anything that you wish. Please note that your WeBWorK password is completely separate from your Gannon network password. Once you are logged in, you will

see any assignments that are currently available for you to work on, the due dates for those assignments, and can access past submissions. New assignments will appear after a new section has started in class. Each person will be assigned similar but slightly different problems, so working together will help with ideas but not with final answers. Most problems will allow *six* submissions. You should work out the problems by hand before submitting them. A PDF copy may be produced and then printed for each problem set. Make sure to *preview* your answers before submission. If you have any questions or problems, contact me immediately. **Warning!** *WeBWorK* problems are not a substitute for practice problems in the text. Make sure you work out textbook problems also, particularly ones that involve sketching graphs or pictures.

7. **Gateway Guidelines.** The Gateway Exam is a test of the major techniques of differentiation. The exam may be taken in the Mathematics Center during open hours on the dates listed in the Grading section. In order to pass, you must achieve a score of at least 6 out of 7 on a *proctored* exam within a 30 minute time limit. Calculators are not permitted during this exam. You may take practice exams anytime after the Fall Break using the *WeBWorK* system. While you may practice as much as you like, you may only attempt a proctored exam twice in a single day and must meet with me or a tutor before taking the exam a second time in a day. Your recorded grade for this exam will either be 0 (if not passed by the deadline), 6, or 7 (depending on the number correct on a passing exam). Additionally, a 1 point bonus will be given for any passing score achieved before November 1.
8. **Attendance.** Attending every class is necessary to maximize your success in this course. Regular attendance of scheduled office hours is also recommended if you have additional questions or concerns about any aspect of the course. You are responsible for obtaining any information missed due to absence.
9. **Excused Absences.** An excused absence from an exam will only be given when the absence is truly unavoidable and beyond your control. If you have advanced warning of a situation that will cause you to miss an exam, you must arrange to take a make-up exam before your absence. An exam missed due to illness must be made up the following day unless excused by a doctor.
10. **Technology.** A graphing calculator is recommended for this course and will be useful during class and on exams. The TI-83 and TI-84 are the preferred models. The TI-89, TI-92, and other devices capable of symbolic differentiation and integration will not be allowed for exams and quizzes. It is your responsibility to understand how to operate your calculator.
11. **Academic Integrity.** Students are assumed to be familiar with the Academic Integrity Policy found in the current edition of the student handbook. Cheating or dishonesty may result in a failing course grade or even expulsion from the University.
12. **Student Disabilities.** Gannon University is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with me as early in the semester as possible. You must also be registered with The Program for Students with Learning Disabilities prior to receiving accommodations in this course.

## Math 140-03 Tentative Schedule for Fall 2008

Date	Day	Sect.	HW (odds only unless stated otherwise)	Quiz	
8/27	W	1.1	2, 8, 15, 24, 31, 32, 33, 39, 45–51, 54, 56, 57–61	#1 9/8	
8/29	F	App. A	1–11, 19, 25, 27, 29, 37, 65, 69, 73, 81		
9/1	M	No Class			
9/3	W	App. A		#2 9/15	
9/5	F	1.2	5, 7, 8, 10, 15–31, 35, 38, 39, 45, 53, 57, 63		
9/8	M				
9/10	W	1.3	3, 5, 6, 8, 9, 11, 12, 15, 19, 21, 27(a,b),		
9/12	F		23*, 27c*, 35*, 39*		
9/15	M	1.4	1–7, 11–19, 23, 29, 37, 53, 54, 55		
9/17	W	Review			
9/19	F	<b>Exam #1</b>			
9/22	M	1.5	3, 7, 9, 13–23, 27–31, 33(a,b), 35, 37, 43, 47,	#3 10/1	
9/24	W		36*, 45*		
9/26	F	1.6	1–7, 11–15, 19, 21, 25, 35(a,b), 39, 44		
9/29	M	2.1	1–11, 15, 17, 21, 23, 29, 31, 37, 41, 43	#4 10/10	
10/1	W				
10/3	F	2.2	1–9, 17, 21, 27, 29, 33, 36, 41		
10/6	M				
10/8	W	2.3	1–23, 27–33, 37, 42, 43, 47, 54(a), 62, 65, 68*		
10/10	F	2.4	1, 2, 3–13, 19–23, 27, 31–35, 41–45, 49, 53, 51*	#5 10/22	
10/13	M				
<b>Fall Break 10/15–10/17</b>					
10/20	M	2.5	1–39, 43, 47, 51, 56, 58, 64, 68*		
10/22	W				
10/24	F	Review			
10/27	M	<b>Exam #2</b>			
10/29	W	2.6	1–9, 15–19, 31, 39	#6 11/5	
10/31	F	2.7	3–9, 13, 16, 20, 25, 29		
11/3	M				
11/5	W	2.8	1–5, 11–15, 23, 26(a), 27	#7	
11/7	F	3.1	3–11, 23–29, 35, 41, 42, 55(a,b), 57*	11/12	
11/10	M	3.2	1, 5, 7, 11, 23, 25, 32, 33, 17*, 21(a)*	#8 11/17	
11/12	W	3.3	1, 3, 4, 7, 11–21, 27, 35, 37, 41*		
11/14	F				
11/17	M	3.4	5, 13, 17, 29, 31		
11/19	W	Review			
11/21	F	<b>Exam #3</b>			
11/24	M	3.5	2–6(all), 9, 11, 12, 13, 19, 35, 37, 17*	#9 12/3	
<b>Thanksgiving Break 11/26–11/28</b>					
12/1	M	3.5	Extra Optimization Problems(1–8(all), 9*, 10*)		
12/3	W				
12/5	F	3.6	3, 5, 9, 11, 21, 22, 23	#10	
12/8	M	3.7	1–11, 12, 13, 15, 19, 23, 25, 29–35, 47	12/10	
12/10	W	Review			
12/12	F	Review			
12/17	W	<b>Final Exam, 1:30pm–3:30pm</b>			

Note: Problems marked with \* are required for mathematics majors.