

MATH108: Introductory Calculus with Business Applications

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Office Hours: TR 4.15–4.45 and 5.15–5.45 (or by appointment).
Webpage: <http://math.gmu.edu/~harbir/m108>
- Textbook:** *Calculus for Business, Economics, and the Social and Life Sciences*, 9th (brief, not expanded) edition, by Hoffmann and Bradley.
- The Course:** We will cover most of the sections in Chapters 1–5 — see the homework questions on the next page.
- Calculators:** You should own a scientific calculator in order to get answers to homework questions but you will not be allowed to use it during the tests.

The homework questions for the semester are on the next page. These will not be collected or graded but you are **STRONGLY** advised to attempt them and write out your solutions as if they would be. You are encouraged to discuss these problems amongst yourselves and to make use of the office hours. I will go through the majority of the homework questions in the next class and you will only benefit from this if you have attempted them properly beforehand. Note that the above list of homework questions is the **ABSOLUTE MINIMUM** you should be doing each week. All of the odd-numbered questions in the book have solutions in the back and you should attempt as many of those as you feel you need to.

The course will be evaluated with 4 (1 hour) in-class exams on Thursday February 12th, Tuesday March 17th, Tuesday April 7th and Thursday April 30th. Your 3 best results (relative to the class average for that test) will each contribute 20% towards the evaluation and the remaining 40% will come from a (cumulative) final exam on Thursday May 12th (although this may change because of Inauguration Day). I shall explain the grading system in more detail in the first lecture ¹. If you miss more than one of the in-class exams then you will need to provide very good (and well-documented) reasons for missing **EACH** of them. There will be no make-up tests or ‘extra-credit’ assignments. You are expected to abide by the University Honor Code and all suspected violations will be reported to the Honor Committee. No outside materials will be allowed during any of the examinations.

Additional Remarks:

- 1) Feel free to ask questions in class. It makes things more interesting for everyone, myself included.
- 2) There is help available for this course at the Math Tutoring Centre.
- 3) It is **YOUR** responsibility to regularly check the course webpage and your official university email address for announcements.
- 4) Please check the course webpage or this handout for the answers to any questions you may have before emailing me.
- 5) Please turn off your PDAs, phones etc. And if I see anyone texting in class I will throw them out.

¹NOTE: I DO NOT GRADE ON A CURVE. The formula I use to rank you depends upon the class average but the grade boundaries are determined by absolute, not relative, performance!

| Chapter | Section | Homework Questions |
|----------------|---|---|
| Appendix | Algebra Review A1 and A2 | Do as many questions as you need to! |
| Chapter 1 | Functions, Graphs and Limits | |
| | 1.1 | 1,5,11,13,15,19,21,23,29,33,35,39,47,51,53,69 |
| | 1.2 | 1,7,11,15,19,21,27,29,31 |
| | 1.3 | 5,9,17,21,31,33,35,39,47 |
| | 1.4 | 3,9,11,33,41,45,47 |
| | 1.5 | 11,15,21,23,25,27,31,35,37,51,55 |
| | 1.6 | 7,9,11,15,17,21,25,33,39,47 |
| Chapter 2 | Differentiation: Basic Concepts | |
| | 2.1 | 3,7,11,13,15,17,19,27,35,39 |
| | 2.2 | 3,5,7,9,11,21,25,29,31,37,45,51,69 |
| | 2.3 | 3,5,7,9,15,17,21,23,27,35,37,41,43 |
| | 2.4 | 1,3,7,11,15,19,23,29,31,39,43,65 |
| | 2.5 | 3,7,13,17,21,25 |
| | 2.6 | 1,3,5,7,11,15,25,29,37 |
| Chapter 3 | Additional Applications of the Derivative | |
| | 3.1 | 3,5—8,11,17,21,25,31,35,41,49,55,61 |
| | 3.2 | 1,3,7,13,19,25,29,37,41,43,47,51,60 |
| | 3.3 | 3,5,11,19,25,35,39,41 |
| | 3.4 | 3,7,11,17,23,25,31,40 |
| Chapter 4 | Exponential and Logarithmic Functions | |
| | 4.1 | 1,5,7,11,17,19,21,27,31,33,35,39,49 |
| | 4.2 | 1,3,5,7,9,11,13,17,23,27,31,33,41,45,47 |
| | 4.3 | 3,7,11,13,19,23,27,29,31,35,39,43,47 |
| Chapter 5 | Integration | |
| | 5.1 | 1,3,5,7,9,11,15,19,23,25,27,33,45,53 |
| | 5.2 | 5,9,13,17,23,27,31,35,39,49,53 |
| | 5.3 | 1,5,9,13,17,21,25,29,31,37,55 |

If time permits we will cover Sections 3.5, 4.4, 5.4 and 5.5 at the end of the course.