

## Ohio University Fall 2008 Math 163A Section A04 Course Information

**Instructor:** Mark Barsamian

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**Office Hours:** Monday - Thursday 9:10am-10:00am

**Course Description:** A survey of basic concepts of calculus for students who want an introduction to calculus, but who do not need the depth of 263A-B-C.

**Prerequisites:** Math 113 or Placement level 2 or higher.

**Note:** Students cannot earn credit for both 163A and either of 263A or 266A.

**Text:** Calculus for Business, Economics, Life Sciences, and Social Sciences, 11th Edition, by Barnett, Ziegler, and Byleen, published by Pearson/Prentice Hall, 2007, ISBN 0-13-232818-6

**Calculators:** Will be used in class and on homework but will not be allowed on exams.

### Resources Online:

- Math 163A Web page: <http://www.math.ohiou.edu/courses/math163/index.php>
- Section A04 Web Page: <http://www.math.ohiou.edu/~barsamian/2008f163A/2008f163A.html>
- Section A04 Blackboard site: <https://blackboard.ohiou.edu/>
- The Academic Advancement Center's Math Center website: <http://cscwww.cats.ohiou.edu/aac/math/>
- Supplemental Instruction (SI) website: <http://www.ohiou.edu/AAC/supins/>

### Resources on Campus:

- The Academic Advancement Center's Math Center has drop-in help tutors, online help, and a phone hotline.
- Supplemental Instruction (SI) provides free, out-of-class study sessions.

**Special Needs:** If you have physical, psychiatric, or learning disabilities that require accommodations, please let me know as soon as possible so that your needs may be appropriately met.

### Grading:

In Math 163A Section A04, you will accumulate points as shown in the table at right.

Written Homework (7 assignments, 25 points each):	175	points
Midterm Exam #1:	125	points
Midterm Exam #2:	200	points
Midterm Exam #3:	200	points
Final Exam:	300	points
<b>Total Points Possible for the Quarter:</b>	<b>1000</b>	<b>points</b>

Your course letter grade will be computed from your total score using the percentage scale shown in this table.

(The Learning Objectives for the course can be found on the main Math 163A web page.)

Total Score	Percentage	Grade	Interpretation
900 - 1000	90% - 100%	A	You mastered all concepts, with no significant gaps
850 - 899	85% - 89.9%	A-	
800 - 849	80% - 84.9%	B+	You mastered all essential concepts and many advanced concepts, but have some significant gaps.
750 - 799	75% - 79.9%	B	
700 - 749	70% - 74.9%	B-	
650 - 699	65% - 69.9%	C+	You mastered most essential concepts and some advanced concepts, but have many significant gaps.
600 - 649	60% - 64.9%	C	
550 - 599	55% - 59.9%	C-	
400 - 549	40% - 54.9%	D	You mastered some essential concepts.
0 - 399	0% - 39.9%	F	You did not master essential concepts.

**Attendance:** In Math 163A Section A04, attendance is mandatory and is recorded. Attendance is not part of your grade. However, data from previous quarters shows that there is a very strong correlation between attendance and performance in this course. If you do miss a class, it is your responsibility to copy a classmate's notes and study them. I will not use my office hours to teach topics that were discussed in class to students that were not in class.

### Fall 2008 Math 163A Section A04 Topic List and Tentative Schedule

Date	Class topics	Homework/Exam
Mon Sep 8	2-1 Functions	
Tue Sep 9	2-1 Functions	
Thu Sep 11	2-2 Graphs and Transformations	
Fri Sep 12	2-3 Quadratic Functions	Homework 1 Due
Mon Sep 15	2-4 Exponential Functions	
Tue Sep 16	2-5 Logarithmic Functions	
Thu Sep 18	2-5 Logarithmic Functions	
Fri Sep 19	Exam 1 on Chapters 1 and 2	Exam 1
Mon Sep 22	3-1 Introduction to Limits	last day to drop without a W
Tue Sep 23	3-1 Introduction to Limits	
Thu Sep 25	3-2 Continuity	
Fri Sep 26	3-3 Infinite Limits and Limits at Infinity	Homework 2 Due
Mon Sep 29	3-3 Infinite Limits and Limits at Infinity	
Tue Sep 30	3-4 The Derivative	
Thu Oct 2	3-4 The Derivative	
Fri Oct 3	3-5 Basic Differentiation Properties	Homework 3 Due
Mon Oct 6	3-5 Basic Differentiation Properties	
Tue Oct 7	3-6 Differentials	
Thu Oct 9	3-7 Marginal Analysis in Business and Economics	
Fri Oct 10	Exam 2 on Chapter 3	Exam 2
Mon Oct 13	4-1 The Constant $e$ and Continuous Compound Interest	last day to drop
Tue Oct 14	4-2 Derivatives of Exponential and Logarithmic Functions	
Thu Oct 16	4-2 Derivatives of Exponential and Logarithmic Functions	
Fri Oct 17	4-3 Derivatives of Products and Quotients	Homework 4 Due
Mon Oct 20	4-4 The Chain Rule	
Tue Oct 21	4-4 The Chain Rule	
Thu Oct 23	4-5 Implicit Differentiation	
Fri Oct 24	4-6 Related Rates	Homework 5 Due
Mon Oct 27	4-7 Elasticity of Demand	
Tue Oct 28	Exam 3 on Chapter 4	Exam 3
Thu Oct 30	5-1 First Derivative and Graphs	
Fri Oct 31	5-1 First Derivative and Graphs	
Mon Nov 3	5-2 Second Derivative and Graphs	
Tue Nov 4	5-4 Curve Sketching and Graphs	
Thu Nov 6	5-4 Curve Sketching and Graphs	
Fri Nov 7	5-5 Absolute Maxima and Minima	Homework 6 Due
Mon Nov 10	5-5 Absolute Maxima and Minima	
Tue Nov 11	Holiday: no class	
Thu Nov 13	5-6 Optimization	
Fri Nov 14	5-6 Optimization	Homework 7 Due
Wed Nov 19	Cumulative Final Exam 8:00am – 10:00am in Morton 237	

## Fall 2008 Math 163A Section A04 Homework Assignments

One learns math primarily by trying to solve problems. For that reason, homework plays a central role in Math 163A Section A04. The table below shows a list of *suggested homework problems* and refers to *assigned homework sets*.

The *suggested homework problems* shown in the table are selected from the textbook. These problems are not to be turned in and are not part of your grade. But in order to learn the material covered in the course, you should do as many of the suggested problems as possible and keep your solutions in a notebook for study.

The seven *assigned homework sets* are graded. For each of the assigned homework sets, do the following:

- From the web page for Section A04, follow the link to the homework set cover sheet and print it out.
- The cover sheet has the assigned problems on it. Solve them on separate paper, not on the cover sheet.
- You are encouraged to work together, but the words that you write should be your own.
- Print your name on the cover sheet and staple it to the front of your pages
- Submit the completed homework set in class on the date indicated. Late work will not be accepted.

The assigned homework sets contain custom problems that are similar in style to the questions that I put on exams. These custom problems are based on the suggested textbook problems, but the custom problems more often ask you to show your work, or explain, or draw a graph. It is my hope that by working on the assigned homework sets, you will become accustomed to my style of questions and thus be better prepared for the exams.

	Assigned Homework Sets (turn in)	Suggested Homework Problems (do not turn in) Problems requiring use of a calculator are shown in [square brackets]
H1	download H1 cover sheet from web page for Section A04	1-1#11,21,23,25,33,34,35,36,39,41,53,59,65,67,69
		1-2#17,23,25,35ab[cd],37,49,51,53,57,59,61,69,77
		2-1#35,37,39,45,47,49,51,67,69,70,93,97,99,103,105,109,113,115,117,119,121,123,126
		2-2#3,5,7,9,11,17,19,21,23,25,30,31,32,33,34,35,37,39,47,49,51,53,55,56,57,61,63a,65,67
		2-3#9,13,15,19,21,23,25,[31],[41],45,47,51,52,57,59,61,63
		2-4#1,3,5,7,15,17,19,21,23,25,27,29,31,33,39,43,45,47,49,51,61,63,65,67,73,75
		2-5#2,3,5,9,11,13,15,17,19,21,23,31,33,35,37,39,41,43,45,47,49,51,53,57,61,63,[67],[69],[71],[73],[77],87,[91],[93],[95],99,100a[b]cd,[104]
H2	download cover sheet	3-1#1,3,5,7,11,17,21,35,37,39,41,45,47,49,55,57,59,63,71
		3-2#1,3,5,7,9,10,14,15,17,19,25,27,29,31,33,35,41,43,43,47,49,53,59,61,63,65,71,73,75
H3	download cover sheet	3-3#1,2,3,4,5,6,7,8,9,11,13,15,17,19,21,23,25,27,31,33,35,37,39,49,57,59,61,63,67,69,[71]
		3-4#1,3,5,7,13,17,19,21,27,29,31,32,33,34,35,36,37,38,39,41,43,45,46,47,49,57,59,61
		3-5#1,3,7,9,11,15,17,23,25,29,31,33,35,37,39,41,43,45,47,51,55,[61],65,67,75,77,79,83,89
		3-6#1,3,7,9,11,13,15,19,21,25,37,41,43,45,47
		3-7#1,3,5,9,11,13,15,[19]
H4	download cover sheet	4-1#[1],[3],[5],[9],[11],[13],[17],[19],[21],[25],[27],[31],[33],[35],[37],[39]
		4-2#1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,41,51,53
H5	download cover sheet	4-3#1,3,5,9,11,15,17,23,25,27,35,39,43,47,51,53,55,57,59,61,67,71,77,83,85,87
		4-4#1,3,5,7,23,27,29,31,33,35,37,39,41,45,47,49,51,57,61,63,67,71,79,83,89,93,[97],[99]
		4-5#3,7,13,15,17,19,25,27,29,31,35,43,47
		4-6#1,3,5,7,9,11,13,17,19,21,25,27,29,31
		4-7#5,7,9,15,19,21,23,25,27,29,31,41,47
H6	download cover sheet	5-1#1,3,5,6,7,9,11,13,15,17,21,23,25,27,29,33,[41],[43],51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,83,89,91,93,95,101
		5-2#1,3,5,7,9,11,13,15,19,21,25,29,31,33,37,41,45,51,55,59,61,71,73,79,81,89
		5-4#1,3,5,7,9,11,15,17,21,23,24,25,41,43,57,59,65,75,83
H7	download cover sheet	5-5#1,3,5,7,11,15,17,19,21,23,25,27,29,33,35,37,41,43,51,55,57,59,61,63
		5-6#1,3,5,11,17,23,25,31,37