

Ohio University Winter 2008 Math 163A Sections A02 and A03 Course Information

Instructor: Mark Barsamian

e-mail: Mark.Barsamian.1@ohio.edu

Office: Morton Hall Room 538

Office phone: (740) 593-1273

Office Hours: Monday 9:10am-10:00am
 Tuesday 9:10am-10:00am
 Wednesday 8:10am-12:00pm
 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 with Applications (Brief Version), 8th Edition, by Lial, Greenwell, and Ritchey, published by Addison Wesley, 2005; ISBN: 0-321-22829-4

Calculators: will not be allowed on exams

Resources Online:

- Math 163A Web page: <http://www.math.ohiou.edu/courses/math163/index.php>
- Sections A02 and A03 Web Page: <http://www.math.ohiou.edu/~barsamian/2008w163A/2008w163A.html>
- Sections A02 and A03 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 Sections A02 and A03, 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
Total Points Possible for the Quarter:	1000	points

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 Sections A02 and A03, attendance is mandatory, but is not part of your grade. If you miss a class, it is your responsibility to copy a classmate's notes and study them.

Winter 2008 Math 163A Sections A02 and A03 Syllabus and Tentative Schedule

Date	Class topics	Homework/Exam
Mon Jan 7	1.1 Slopes and Equations of Lines	
Tue Jan 8	1.2 Linear Functions and Applications	
Thu Jan 10	2.1 Properties of Functions	
Fri Jan 11	2.2 Quadratic Functions; Translation and Reflection	Homework 1 Due
Mon Jan 14	Handout 3: Sign Charts	
Tue Jan 15	2.3 Polynomial and Rational Functions	
Thu Jan 17	2.3 Polynomial and Rational Functions	
Fri Jan 18	Exam 1	Exam 1
Mon Jan 21	Holiday: no class	
Tue Jan 22	3.1 Limits: Basic Definitions (Last day to drop without a W)	
Thu Jan 24	3.1 Limits and 3.2 Continuity (do class drill 1)	
Fri Jan 25	3.2 Continuity	Homework 2 Due
Mon Jan 28	3.3 Rates of Change	
Tue Jan 29	3.3 Rates of Change (do class drill 2)	
Thu Jan 31	3.4 Definition of the Derivative	
Fri Feb 1	3.4 Definition of the Derivative	Homework 3 Due
Mon Feb 4	3.5 Graphical Differentiation (do class drill 3a)	
Tue Feb 5	3.5 Graphical Differentiation (do class drill 3b)	
Thu Feb 7	Review	
Fri Feb 8	Exam 2	Exam 2
Mon Feb 11	4.1 Techniques for Finding Derivatives (Last day to drop)	
Tue Feb 12	4.2 Derivatives of Products and Quotients	
Thu Feb 14	4.3 The Chain Rule	
Fri Feb 15	4.3 The Chain Rule	Homework 4 Due
Mon Feb 18	5.1 Increasing and Decreasing Functions	
Tue Feb 19	5.2 Relative Extrema	
Thu Feb 21	5.3 Higher Derivatives and Concavity (class drills 4,5)	
Fri Feb 22	5.3 Higher Derivatives and Concavity	Homework 5 Due
Mon Feb 25	5.4 Curve Sketching (class drill 6)	
Tue Feb 26	5.4 Curve Sketching	
Thu Feb 28	Review	
Fri Feb 29	Exam 3	Exam 3
Mon Mar 3	6.1 Absolute Extrema (do class drill 7)	
Tue Mar 4	6.1 Absolute Extrema	
Thu Mar 6	6.2 Applications of Extrema	
Fri March 7	6.2 Applications of Extrema	Homework 6 Due
Mon Mar 10	9.1 Functions of Several Variables	
Tue Mar 11	9.2 Partial Derivatives (do class drill 8)	
Thu Mar 13	9.3 Maxima and Minima	
Fri Mar 14	9.3 Maxima and Minima (do class drill 9)	Homework 7 Due
Mon Mar 17	163 Section A03 Cumulative Final 8:00am – 10:00am in Morton 326	
Thu Mar 20	163 Section A02 Cumulative Final 8:00am – 10:00am in Morton 326	

Winter 2008 Math 163A Sections A02 and A03 Homework Assignments

One learns math primarily by trying to solve problems. For that reason, homework plays a central role in Math 163A Sections A02 and A03. 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* that are referred to in the table are found at the web page for Sections A02 and A03. (The web address is on page 1, above.) The assigned homework sets are graded. For each of the assigned homework sets, you should do the following:

- From the course web page, follow the link to the cover sheet for the homework set and print it out.
- Work the assigned problems on separate pages.
- You are encouraged to work together, but the words that you write should be your own.
- Staple the cover sheet 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)
H1	Assigned Homework Set #1 download from web	1.1#1, 3, 4, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 39, 47, 51, 53, 57, 59
		1.2#1, 2, 3, 4, 9, 13, 15, 17, 23, 27
		2.1#1, 3, 5, 7, 15, 17, 23, 25, 27, 29, 37, 41, 43, 45, 55, 57, 59, 63, 65
		2.2#1, 2, 3, 5, 7, 9, 11, 21, 25, 26, 27, 29, 49
		Handout 3: Sign Charts, Problems #1, 2, 3, 4, 5, 6
		2.3#1, 2, 3, 5, 7, 9, 11, 13, 15, 17, 21, 25, 27, 31, 33, 39
H2	download from web	3.1#1, 3, 5, 7, 9, 10, 11, 25, 29, 31, 39, 41, 43, 47, 49
		3.2#1, 3, 5, 7, 9, 11, 13, 19, 23, 25
H3	download from web	3.3#1, 3, 5, 7, 9, 11, 13, 15, 21, 27
		3.4#1, 2, 3, 4, 5, 9, 10, 11, 13, 15, 17, 19, 21, 33, 47
		3.5#3, 5, 7, 9, 11, 13
H4	download from web	4.1#3, 5, 7, 13, 19, 27, 29, 31, 37, 41, 45, 46, 53, 54
		4.2#1, 7, 15, 21, 23, 27, 28, 30*, 31 (*hint for #30: Do the derivative yourself, then compare.)
		4.3#1, 3, 7, 13, 19, 21, 27, 37, 45, 54a
H5	download from web	5.1#7, 11, 15, 19, 21, 29, 41
		5.2#7, 11, 15, 21, 29, 30, 35, 49
		5.3#3, 5, 9, 29, 31, 35, 37, 51
		5.4#5, 9, 11, 13, 17, 18, 19, 20, 35, 36, 37
H6	download from web	6.1#1, 3, 11, 15, 17, 19, 27, 35
		6.2#1, 3, 7, 9, 11, 13, 16, 18, 23, 27
H7	download from web	9.1#3, 7, 21, 22, 23, 24, 25, 26, 27
		9.2#1, 3, 5, 11, 17, 21, 25, 33, 35, 51
		9.3#7, 9, 11, 13, 21, 22, 23, 24, 25, 26, 35