

# MATH 152 - Calculus 2

Fall 2015, 4 Credits

## Course Information:

**Instructor:** Dr Cheyne Homberger

**Office:** MP 239

**Email:** cheyneh@umbc.edu

**Office Hours:** Mondays and Wednesdays 4:45 - 5:20pm, 6:50 - 7:25pm

## Class Times:

**Lecture:** Sections 11,12,13,14,15

Mondays and Wednesdays, 5:30 - 6:45pm, Lecture Hall 1 101

## Discussions:

Teresa Lebair

12 — Mondays and Wednesdays, 4:00 - 4:50pm SOND 204

14 — Mondays and Wednesdays, 7:10 - 8:00pm SOND 108

John Zylstra

13 — Mondays and Wednesdays, 4:00 - 4:50pm SOND 111

15 — Mondays and Wednesdays, 7:10 - 8:00pm SOND 109

**Course Description:** This course will cover techniques and applications of integral calculus, including integration by parts, trigonometric substitution, sequences and series, Taylor series, and calculus in parametric equations and polar coordinates. Students will attend two lectures and two discussions each week.

**Textbook:** *Calculus, Early Transcendentals* by James Stewart, 7th edition, Thomson/Brooks Cole Publishing, 2010. A personal Webassign code is also required for your online homework. This code comes bundled with a new text or can be purchased separately online at the publishers at Webassign.com or in the book store. If the enhanced code is purchased, an e-book is already included online and students can decide if they want the hard copy as well as the text online. You do not need a class key, you will be linked to Webassign through BlackBoard.

**Testing and Grading:** The usual 90-80-70-60 % grading system will be used in this course. Time spent outside of class on this course will be (at minimum!) between 12 and 15 hours per week.

Points will be allocated as follows:

Best 10 homeworks — 10 points each	= 100 points
Best 8 quizzes — 25 points each	= 200 points
3 Exams — 100 points each	= 300 points
Final Exam — 200 points	= 200 points
<b>TOTAL</b>	<b>= 800 points</b>

Exams will be given during lecture and quizzes will be given during discussions, according to the schedule below.

**Quiz 0 will be taken by all students taking Math 152.** See Blackboard for details — you have received emails regarding Quiz 0. You must read them carefully and follow the instructions. I will not be answering questions about the topics covered in this quiz. This will be counted as one of your quizzes, but cannot be dropped.

**Make-up Policy:** There will be no make-ups, but there will be drops to compensate for this. The lowest three quizzes will be dropped. Make-up exams will be given at my discretion — you must notify me by email well in advance of the exam date if you are unable to attend. **Calculators are not allowed on quizzes and exams**, but may be used on homework (though they are not required).

**Academic Conduct and Policy:** By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal.

**To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory.**

## Approximate Course Schedule:

Date	Sections	Topics Covered	Quizzes
W 8/26	6.1	Introduction, and areas between curves	
M 8/31	6.2, 6.3	Volume using washers and shells	
W 9/2	6.3, 6.5	Average values	Quiz 1 on 6.1 - 6.2
M 9/7		Labor Day — No Class	
W 9/9	7.1	Integration by parts	Quiz 2 on 6.3, 6.5
M 9/14	7.2	Trig integrals	
W 9/16	7.3	Trig Substitution	Quiz 3 on 7.1, 7.2
M 9/21	7.4	Partial Fractions	
W 9/23	7.5, 7.7	Strategies for integrals, and approximation	Quiz 4 on 7.3
M 9/28		Review	
W 9/30		Exam 1 on 6.1 - 7.5	
M 10/5	7.7, 7.8	Approximation and improper integrals	
W 10/7	8.1, 8.2	Arc length, area of a surface of revolution	Quiz 5 on 7.7 - 7.8
M 10/12	11.1, 11.2	Sequences and series	
W 10/14	11.2, 11.3	The integral test	Quiz 6 on 8.1 - 11.1
M 10/19	11.4, 11.5	Comparison tests and alternating series	
W 10/21	11.6, 11.7	Ratio and root tests, strategies	Quiz 7 on 11.2 - 11.4
M 10/26		Review	
W 10/28		Exam 2 on 7.7 - 11.7	
M 11/2	11.8	Power Series	
W 11/4	11.9	Functions as power series	Quiz 8 on 11.8
M 11/9	11.10	Taylor series	
W 11/11	11.11	Applications	Quiz 9 on 11.10
M 11/16	10.5, 10.1	Conic sections, parametric equations	
W 11/18	10.1	Parametric equations, review	Quiz 10 on 11.11, 10.5, 10.1
M 11/23		Exam 3 on 11.8-10.1	
W 11/25		No Class	
M 11/30	10.2, 10.3	Parametric equations and polar coordinates	
W 12/2	10.4	Areas and lengths in polar coordinates	Quiz 11 on 10.2, 10.3
M 12/7		Review — Last Day of Class	
		Final Exam — December 10th, 3:30pm - 5:30pm	