

MATH 151
4 credits

CALCULUS I
Summer, 2012

COURSE INFORMATION:

LECTURE: MWTh 6:00 p.m.-8:05 p.m. Math Psychology Room 101

DISCUSSION: MW 5 -5:50 Math Psychology Room 101

INSTRUCTOR: Ms. Jyoti Saraswat **OFFICE:** MP 237

OFFICE HOURS: MW 8:05-8:30 pm, Th 5:00-5:50 am or by appointment

E-MAIL ADDRESS: jyoti@umbc.edu

TA: Anna Sun

Office: SOND 401

TA office hours: 12-2 pm Tuesday

E-Mail: asun1@umbc.edu

TEXT: CALCULUS. Early Transcendentals, by James Stewart, 7th Edition
Thomson/Brooks.Cole Publishing, 2012.

TESTING AND GRADING: The grading system used in this course is as follows
A+ (97-100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C
(73-76), C- (70-72), D+ (67-69), D (65-66), F (below 65). This is a fast paced course.
We will have one quiz every week and one home work. The quizzes will be based on the
material covered in the class and the homework will be through webassign. You will be
assigned practice problems from each section. It will be a good idea to attempt them. The
quizzes will have at most six problems. The problems may or may not have subparts
depending on the section. Quizzes will be hour long. The quizzes will be given during the
discussions and the exams during lecture. Mini exams will be hour long and will be given
towards the end of the lecture.

Class participation points will be awarded on attendance, classroom behavior, active
participation in class activities etc.

MINIMUM! POSSIBLE POINTS ARE AS FOLLOWS:

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|------------------------------------|----------------------|
| Best 6 quizzes @ 30 points each | = 180 points |
| Best 5 home works @ 40 points each | = 200 points |
| Two mini exams @ 150 points | = 300 points |
| Midterm | = 200 points |
| Class participation | = 20 points |
| 1 Final Exam @ 200 points | = 200 points |
| TOTAL | = 1100 points |

How to be successful in the course:

You should spend enough time going over the material and working out the problems. Mathematics is all about practice. Just knowing how a problem is worked out, is not enough. Things look easier if someone else is showing you how to do a problem. The main idea is to reproduce it of your own without any books or notes. There is a difference between seeing and understanding things. There are plenty of formulas which you will be expected to memorize. Start making flash cards from the very beginning of the course, they will be a handy tool to remember all of them. Time spent outside of class on this course will be between 12 and 15 hours per week.

MAKE-UP QUIZZES/EXAMS! One lowest quiz will be dropped. Make-up quizzes/exams will be given at my discretion and provided I have been notified prior to the scheduled time of the exam that you will be unable to attend. Leave messages at 410-455-2412 in the Mathematics office or on my email above. The make-up time will be arranged using email. **No calculators will be required during this course.**

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, and they are wrong. 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.

MATH 151 Syllabus

SUMMER 2012

| DATE | SECTIONS COVERED | QUIZZES OR EXAMS |
|----------|---|---------------------------|
| W 05/30 | Review of Algebra and Trigonometry | |
| Th 05/31 | 2.1 Tangents and velocities 2.2 Limits of functions | |
| M 06/04 | 2.3 Limits & 2.4 Precise definition of a limit | Quiz 1 on 2.1-2.2 |
| W 06/06 | 2.4 again & 2.5 Continuity | |
| Th 06/07 | 2.6 Limits at infinity & 2.7 Derivatives as rates of change | |
| M 06/11 | 2.8 Derivatives as functions | Mini exam I |
| W 06/13 | 3.1 Derivative of polynomials 3.2 Product and Quotient rules | Quiz 2 on 2.7-2..8 |
| Th 06/14 | 3.3 Derivatives of Trig functions 3.4 The Chain rule | |
| M 06/18 | 3.5 Implicit Differentiation 3.6 Log differentiation | Quiz 3 on 3.1-3.4 |
| W 06/20 | Midterm | 2.1-3.6 |
| Th 06/21 | 3.8 Exponential growth and decay 3.9 Related Rates | |
| M 06/25 | 3.10 Linear Approximations 3.11 Hyperbolic Functions | |
| W 06/27 | 4.1 Max and Min 4.2 The Mean Value Theorem | Quiz 4 on 3.8-3.9 |

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| Th | 06/28 | 4.3 Derivatives and Graphs & 4.4 L'Hospital's Rule | |
| M | 07/02 | 4.5 Curve Sketching 4.7 Optimization | Quiz 5 3.10-3.11 |
| W | 07/04 | Independence Day | Holiday |
| Th | 07/05 | 4.8 Newton's Method 4.9 Antiderivatives, | |
| M | 07/09 | 4.9 & 5.1 Areas and Distance 5.2 The definite integral | Quiz 6 4.1-4.4 |
| W | 07/11 | 5.3 The Fundamental Theorem of Calculus | |
| Th | 07/12 | 5.4 Indefinite Integrals | Mini exam II |
| M | 07/16 | 5.5 Substitution | |
| W | 07/18 | Review for the Final | Quiz 7 5.4-5.5 |
| Th | 07/19 | Final Exam | |

Disclaimer:

The instructor reserves the right to modify the information given here for the class. The exam dates and the quiz dates are subject to change. The changes, if any will be announced in the class and also via e-mail. It is the student's responsibility to stay informed.