Math Calculus II, Syllabus Fall 2016

Class meets: Tuesday and Thursday 10:00 AM - 12:00 PM, Smith Hall 234, Newark

Instructor: Dr. Anastasiia Tsvietkova, Assistant Professor, office: Smith Hall 203B; email: a.tsviet@rutgers.edu, office phone: 973-353-3913 (contact by email is preferred).

Office hours: Tuesday and Thursday 12:05 -12:45 pm or by appointment, Smith Hall 203B. For appointments, please email me at least a day in advance.

Grades: Grades will be determined using the scale below. You should keep all of your graded work until final grades are posted. It’s your responsibility to keep track of your grades. Please do not email me asking to compute your expected course grade - rather take it as a simple exercise.

Grading scale
2 Midterm Exams for total of 50%
Quizzes and worksheets 20%
Final Exam 30%
Total Possible 100%

Letter grades: 90-100% A
80-89% B+
70-79% B
60-69% C+
50-59% C
40-49% D
< 40% F

Final exam: All students are required to take the final exam. Final Exam is tentatively scheduled for 8:30 - 11:30 am Dec 22, Thursday, Smith Hall 234.

Make-up policy: There will be no make-ups. In very special circumstances and when the explaining documentation is provided within a week from the exam date, final may be counted twice (instead of a midterm). It is up to the instructor whether to consider the documentation sufficient and the situation special enough. There will be no make-ups for the final and for the rest of graded work (quizzes, worksheets). In very special circumstances and when the explaining documentation is provided within a week from the quiz/worksheet date, the missed quiz/worksheet grade can be dropped.

Other exam policies: No books, calculators or notes will be allowed on exams unless otherwise stated by instructor. Please no talking or leaving exam room without permission. Please bring your ID to the exam and be ready to show it to the instructor. Students are responsible for ensuring they do not have conflicting exams.

About a week before exam, the “Review Worksheet” with problems that will help you to prepare will be posted. You do not have to turn it in and may discuss the problems and solutions with the instructor, the teaching assistant and with each other.

Quizzes and worksheets: Quizzes and worksheets can be given during any lecture without a prior notice.
Quizzes include homework or homework-like problems (after the homework was due), and are individual, timed, closed-book assignments. They are intended to help you to prepare for exams and to evaluate your strengths ahead of the exams.

Worksheets are given in the end of class and include problems on recently discussed material. Worksheets are done in groups of 1-4 students. You may use the textbook or your notes, and may ask me questions during the worksheets. Worksheets are intended to help you understand the recent material.

If you miss a quiz or a worksheet, you get 0 for it. Thus attendance is important. If you are late for the lecture or leave early without securing the permission ahead, the quiz/worksheet grade may be reduced. There are no make-ups for quizzes/worksheets, but several lowest quiz/worksheet grades are dropped.

The homework assignments will be given in class. While homework is not collected, it is important to do all of the problems, since later they might appear on quizzes and exams. Discussing homework problems with fellow students is allowed; but copying or allowing to copy the exact solution is not. Thus the recommendation is to write everything down individually after any discussions took place.

Add/Drop Dates: see the academic calendar
http://registrar.newark.rutgers.edu/office-registrar-fall-academic-calendar#add-drop

Students with disabilities: Any student with a documented disability who needs to arrange reasonable accommodations must contact the Office of Disability Services (ODS). If your request for reasonable accommodations is approved, you will receive a Letter of Accommodations (LOA), which you should present privately to the instructor as early in the semester as possible. Accommodations are not retroactive and are effective only upon submission of the LOA to the instructor. Instructor is authorized to provide only the accommodations requested by the ODS.

Classroom etiquette: Please be considerate of the instructor and those around you. Come to class on time and stay the entire period. Turn off cell phones and beepers during class. Do not talk to classmates at inappropriate times. Refrain from reading newspapers or working on other coursework during class. No taping, filming, or photography in class without a prior permission. No listening to iPods or other electronic recording devices during class. Etiquette violations might result in reducing quiz and worksheet grades for that day.

Academic Standards of Conduct: All students are expected to follow Rutgers Code of Academic Conduct. Cheating and plagiarism will not be tolerated. More at http://academicintegrity.rutgers.edu/academic-integrity-policy/

Tentative Schedule: There are 28 lectures from September 6th till December 14th. The list of topics, as well the text book that you need to have for the course, is below.
CALCULUS II
21:640:136 (4 credits)

COURSE DESCRIPTION:
Applications of integrals, calculus of trigonometric and inverse trigonometric functions, techniques of integration, indeterminate forms, infinite series and Taylor series, polar coordinates.

PREREQUISITE:
21:640:135 (Calculus I) or 21:640:155 (Honors Calculus I.)

IMPORTANT NOTE:
Students who took 21:640:135 (Calculus I) or 155 (Honors Calculus) for 3 credits, prior to Spring 2000, should arrange with the Mathematics Department Undergraduate Program Director to complete the missing credit in Calculus I before taking Calculus II.

TEXTBOOK:

DEPARTMENT WEB SITE:  http://www.ncas.rutgers.edu/math

FREE TUTORING:  is available in the Rutgers Learning Center, Room 140 Bradley Hall (973-353-5608.)

THIS COURSE COVERS THE FOLLOWING CHAPTERS AND SECTIONS:

Chapter 5:
5.5 Substitution Rule (a quick review)

Chapter 6:
6.1 Velocity and Net Change
6.2 Regions between Curves
6.3 Volume by Slicing
6.4 Volume by Shells
6.5 Length of Curves
6.6 Physical Applications
6.7 Log and Exponential Functions Revisited
6.8 Exponential Models
Chapter 7:
7.1 Integration by Parts
7.2 Trigonometric Integrals
7.3 Trig Substitutions
7.4 Partial Fractions
7.5 Other Integration Strategies
7.6 Numerical Integration
7.7 Improper Integrals
7.8 Introduction to Differential Equations

Chapter 8:
8.1 An Overview of Sequences and Series
8.2 Sequences
8.3 Infinite Series
8.4 The Divergence and Integral Tests
8.5 The Ratio, Root, and Comparison Tests
8.6 Alternating Series, Absolute and Conditional Convergence

Chapter 9:
9.1 Approximating Functions by Polynomials
9.2 Properties of Power Series
9.3 Taylor Series
9.4 Working with Taylor Series

Chapter 10:
10.1 Parametric Equations
10.2 Polar Coordinates
10.3 Calculus in Polar Coordinates
10.4 Conic Sections

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