Instructor: **Dr. A. Muleshkov, Associate Professor of Mathematics**

Location: CBC C113       Time:  Mo Tu We Th Fr 11:20 A.M. – 1:20 P.M.

Office: CDC 1020       Office Phone: 895-0387 (Voice mail is available.)
Office Hours:  Mo Tu We Th  1:20 – 2:15 P.M.
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Textbook: James Stewart, Essential Calculus Early Transcendentals, 2nd E Edition
(Chapters 6, 6, 7, 8, and 9)

Learning Outcomes: Techniques for solving integrals by integration by parts; integrals of rational functions; integrals of algebraic functions, including binomial integrals and integrals containing square roots of a quadratic function, and integrals containing various radicals of a bilinear function; integrals of transcendental functions, including trigonometric functions, rational function of function, etc. Application of integrals in Geometry (length, area, volume), including cases with parameterization of curves, Physics, etc. Determination of convergence/divergence of series by various tests, etc. Expansion of elementary functions in power series and its application for evaluation unsolvable definite integrals. Revisit of polar coordinates and conic sections.

Prerequisite: MATH 181 (minimal grade C)

The final grade for the course is obtained from the total (500 points) of the following:  
-- 6 to 8 quizzes - 130 points  
-- 2 tests - 170 points each  
-- Instructor’s discretion - 30 points

There will be a quiz and a test or two quizzes almost every week (at the end of Tuesday’s and Friday’s lectures).

The homework will not be graded but should be regularly done. In case a grader can be found, up to 40 points will be given for homework for a total of up to 540 points. In case of difficulties, the instructor’s assistance could be sought during the office hours.
In this class, the textbook is only a tool. Very often, stronger and/or easier methods than the ones given in the textbook are going to be presented in class. The handouts are essential part of the instruction. Some of them are the result of tens of years of effort and experience with students’ difficulties. Timely learning of the handouts could facilitate students’ studies a lot. Neither calculators, nor textbooks, nor handouts, nor notes are allowed on any of the examinations. All work must be shown logically to receive any credit. A solution that includes only the answer will receive 0 points. On the other hand, the answer always needs to be given.

This is a very serious course. There are two main reasons for that. Firstly, the student who studies MATH 182 needs to know the material of Calculus I, Precalculus, College Algebra, and Trigonometry very well. Secondly, this summer course is very condensed. The work that would normally be done in fifteen weeks of lectures in a regular semester (interrupted by fourteen weekends and a longer break) must be accomplished in less than five lecture weeks (broken by only four weekends). Besides the time spent in class, the student will need to devote additional time to working problems, reviewing lecture notes and the text, and consulting with the instructor and/or tutors (from three to seven hours a day, depending on talent, prior knowledge, etc.) Accordingly, students should plan to allow sufficient time. Particular measures to take could include, for example, dropping other classes and limiting working hours on jobs. Regular attendance, prompt arrival, and taking notes are strongly recommended. Students who do not maintain these good habits do not usually succeed in this course. Please keep this syllabus for future reference. If you have any questions about the issues raised here or other issues, please come to my office hours. Knowledge of phone number of and keeping in touch with a classmate could be very helpful.

Please keep this syllabus for future reference. If you have any questions or concerns about the issues raised here or other issues, please come to my office hours.

P. S. If you have a documented disability that may require assistance, you may need to contact Disability Services (DS) for coordination in your academic accommodations. Disability Services is located within Learning Enhancement Services (LES) in the Reynolds Student Services Complex (SSC), Room 137. The telephone number is 895-0866 / TDD 895-0652.