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

Location: BEH 105  Time: Tu Th 5:00 - 6:45 P. M.

Office: CDC-1020 Office Phone: 895-0387 (Voice mail is available.)
Office Hours: Monday and Wednesday 3:50 - 4:50 P. M.
Tuesday and Thursday 4:00 - 4:55 P. M.

E-mail address: muleshko@unlv.nevada.edu
Web site: http://faculty.unlv.edu/muleshko/

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, algebraic functions of exponential 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 (min. grade C) (C− is not enough.)

The final grade for the course is obtained from the total (max. 600 points) of the following:

-- weekly homework - 60 points
-- weekly quizzes - 150 points
-- midterm test - 140 points
-- final exam (partially comprehensive) - 210 points
-- instructor’s discretion - 40 points

There is going to be a recitation/discussion class taught by my graduate student Mr. Tan Nguyen every Monday. During his class, Mr. Tan Nguyen is going to solve problems, answer questions, collect and return homework, and administer quizzes. There will be a quiz (on the material covered in class during the previous week at the end of Monday’s recitation) or a test (on Thursday) every week with a few exceptions, e.g. the last week. No calculators or other electronic devices, notes, or textbooks are allowed to be used during the examinations.

The homework (on my Web site) for a section is due at the beginning of the recitation on the first Monday after the section has been fully covered in class. All work must be shown 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. Since MATH 182 is a continuation of and more difficult than MATH 181, the student who studies MATH 182 needs to know the material of MATH 181, Precalculus, College Algebra and Trigonometry very well. Integration techniques (Section 6) are most fundamental for mathematics and sciences and will be emphasized in this class.

In this class, the textbook is only a tool. Many times, alternative methods (much easier and stronger) will be presented. Only material covered in class is due. Besides coming to class, students need to review past material, work on homework, prepare for quizzes and tests, read the text, and consult the instructor, GA, and/or tutors. Accordingly, students should plan to allow sufficient time. Regular attendance, prompt arrival, and taking elaborate notes are strongly recommended. Students who do not maintain these good habits do not usually succeed in this course. Knowledge of phone number of and keeping in touch with a classmate could be very helpful. Participation in a study group is even better.

Handouts are essential part of this course. 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. Students are encouraged to review them extensively from the beginning of the semester and seek Mr. Nguyen's and my assistance if needed.

All work must be shown 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. Neither textbooks, nor handouts, nor notes, nor calculators, or any other electronic devices are allowed on any of the examinations.

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