Welcome to Calculus with Review!

Words of Encouragement:

Mathematics can be a difficult subject to learn and an even harder one to master. A common misconception is that people either "get" math or they do not. In reality, learning math can be fun! It "merely" takes time, dedication, and practice. If you do not understand a concept, you are in the same boat with most other students. The role of your lecturer and TA is to help everyone understand the material and to help individual students iron out any specific difficulties that arise while working the course exercises.

Studies have shown that both failing and successful calculus students believe they can succeed if they try hard and put equal amounts of time into the course. However, successful students know where and when to get help, study by searching for overall patterns and relationship amongst problems rather than just repeatedly doing examples, and use their time more effectively to study.

In most traditional calculus courses, many students struggle with important algebra and pre-calculus concepts. Calculus with Review I is a course designed with an equal emphasis on reviewing and developing these fundamental pre-calculus skills as they apply to calculus. During the course of the semester, many students may wish to take advantage of this integrated approach and join this course.

From the OSU Math Department:

The Math Department has worked very hard to design this course to meet the following goals:

1. To develop a thorough understanding of calculus concepts both graphically and analytically
2. To develop a conceptual understanding and computational proficiency of single variable differential calculus.
3. To demonstrate relevant applications of mathematical principles by modelling problems arising in a variety of disciplines using calculus and analyzing their solutions.

Philosophy of Assessment:

Mathematics is a field full of conceptual richness and practical applications. While the practical application of mathematical concepts is extremely important, a conceptual understanding is imperative in order to use mathematics as an effective tool. The course assessment material will contain both computational questions as well as problems that require you to demonstrate your conceptual understanding of the material.

All of the course practice has been designed with the aforementioned goals and assessment philosophy in mind. There is ample practice material available on Canvas in the worksheets, recitation handouts, and sample exams. This material will serve as the basis for the

assessments (quizzes and exams) for this semester. We have worked very hard to create this material, and we hope that you utilize it diligently.

Learning Path:

The following is a recommended strategy for learning the course material:

1. Attend lecture and recitation. Take good notes and ask your instructor about anything you do not understand. Spending a short amount of time before lecture skimming the section to be covered that day is highly recommended!
2. The same day that you learn a new concept, work a few problems from the worksheets, your Ximera assignments, or the recitation handouts to make sure you can do problems. The only way to learn math is to do math!
3. Work all of the problems on the worksheets. These problems along with the Ximera homework questions will serve as the basis for your quiz and exam questions! In addition, detailed step-by-step solutions are provided for every problem!
4. If there is anything you do not understand from the worksheets, homework or recitation handouts, ask your TA or recitation instructor!

When working problems and reviewing your notes, you should search for overall patterns and relationships amongst problems rather than just repeatedly doing examples!

General Advice:

- Do not fall behind or rush through the assignments. If you get stuck, take a step back and evaluate how you are thinking about the problem, and don't be bashful about asking questions!
- Log into Carmen every weekday for announcements and discussion posts.