

Math 2413 – Calculus I
Odessa College, Summer I, 2012
Dr. Jack Bennett

Course Information:

- Start Date: June 4, 2012
- End Date: July 5, 2012

Contact Information:

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Course description: Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Prerequisite: MATH 2412—Pre-Calculus Math or equivalent preparation

Learning outcomes: Upon successful completion of this course, students will:

1. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and integrals.
2. Draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point.
3. Determine whether a function is continuous and/or differentiable at a point using limits.
4. Use differentiation rules to differentiate algebraic and transcendental functions.
5. Identify appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems.
6. Evaluate definite integrals using the Fundamental Theorem of Calculus.
7. Articulate the relationship between derivatives and integrals using the Fundamental Theorem of Calculus.

Text: Calculus. By Larson and Edwards, 9th ed. *This Text is Required.*

Exams: There will be four exams and a final.

You will not be allowed to use a cell or smart phone on the exams or the final.

Homework: Homework will be assigned and turned in on a weekly basis. Homework will count for 30% of your final grade.

Course Grade:

Your Course Grade will be computed as follows:

Homework: 30%

Exams: 50%

Final: 20%

I will assign a grade based on the following schedule:

<u>Average</u>	<u>Grade</u>
90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Learning Resource Center (The Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service provide additional help.

Student Email

Please access your [Odessa College Student E-mail](http://www.odessa.edu/gmail/), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or students' and instructor's right to academic freedom can be found in the Odessa College Student Handbook.

The Odessa College Student Success Coaches will help you stay focused and on track to complete your educational goals. If an instructor sees that you might need additional help or success coaching, he or she may submit a Retention Alert or a Starfish Alert. A Student Success Coach will contact you to work toward a solution.