MATH 1220-01 CALCULUS

SUMMER 2011

Instructor: COSTEL IONITA
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Time: 11:00 am-12:50 pm MTWTh
Place: NIB 135
Office Hours: 8:00-8:30 MTWTh
1:00-1:30 MTWTh or by appointment
Text: Calculus, Concepts and Contexts, 4th edition, by James Stewart

1. OBJECTIVES: All classes in mathematics at Dixie College support the general education goal of the college. Within the limitations imposed by the nature of mathematics (i.e. the dependency on prior learning and the need for content fluency) each class will:

• Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations and/or calculus techniques.
• Provide students with application problems that use a variety of methods including arithmetical, algebraic and geometric methods.
• Challenge students to make inferences from mathematical models that include formulas, graphs and tables.
• Provide students with real-life applications that use a variety of mathematical functions.

Upon successful completion of MATH 1220, a student will demonstrate through testing the ability to:

1. Solve separable differential equations.
2. Use the definite integral to find areas between curves and volumes of solids of revolution.
3. Find the length of a curve.
4. Find the area of a surface of revolution.
5. Find moments and centers of mass.
6. Perform polar coordinates transformations and graph the results.
7. Use calculus techniques on equations defined using parametric and polar coordinates.
8. Graph conics in both rectangular and polar coordinates.
9. Use various tests to determine convergence/divergence of series.
10. Represent functions as power series.
11. Perform vector arithmetic, including dot products and cross products.
12. Determine lines and planes in space.
13. Represent coordinates and equations in rectangular, cylindrical, and spherical coordinates.
14. Use plane and space vectors to solve applications in geometry and physics.
15. Use space curves to analyze the motion of an object.

CLASS ATTENDANCE AND PARTICIPATION: It is your responsibility to attend class although it is not required. Be willing to be involved in the class as an active participant. ASK questions, contribute toward solutions, and be interested in the class activities.

DMAIL: Important class and college information will be sent to your Dmail email account. This information includes your DSC bill, financial aid/scholarship notices, notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a Dmail email account. If you don't know your user name and password, go to www.dixie.edu and select "Dmail," for complete instructions. You will be held responsible for information sent to your Dmail email, so please check it often.

DISABILITIES: If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your Professor(s) from the Disability Resource Center within the first two weeks of the beginning of classes. Students are to contact the Center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability. You may call (435) 652-7516 for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973.

IMPORTANT DATES Go to: http://new.dixie.edu/reg/?page=summer2011

GETTING HELP: Use the office hours! I do not plan anything during those times so if you do not stop by I am getting very bored. Use me as much as you can. That's why I am here.

HOMEWORK: Keep in mind that math is a skill that can only be learned and mastered by doing it yourself with lots of practice. Do not attempt to do a whole chapter's assignment at one sitting. A minimum of two hours spent studying outside of class for each hour in class is usually required for college courses.

GRADING: There are five tests worth 50% of your grade. The assignments are worth 25% of your grade. The final exam will be comprehensive and worth 25% of your grade. All tests count toward your grade. The lowest test score can be replaced by the percent on the final exam. Make-up exams as a general rule will not be given.

GRADING SCALE: **A**(90-100%), **B+** (87-89%), **B**(83-86%), **B-**(80-82%), **C+**(75-79%), **C**(70-74%), **C-**(65-69%), **D+**(64-60%), **D**(55-59%), **D-**(50-54%), **F**(0-50%).

Monday	Tuesday	Wednesday	Thursday
	05/31 6.1: 1-17 odd, 23 6.2: 1-17 odd 25, 31, 33, 41	06/01 6.3: 1-13 odd, 23 6.4: 1, 7-13 odd	06/02 6.5: 1-11 odd, 16 6.6: 1-9 odd 21, 31, 33, 45
06/06 **TEST 1**	06/07 7.1: 1-13 odd 7.2: 1-11 all	06/08 7.3: 1-21 odd, 45 7.4: 1-13 odd	06/09 7.5: 1-11 odd
06/13 7.6: 1-7 odd	06/14 **TEST 2**	06/15 8.1: 1-33 odd, 44	06/16 8.2: 9-43 odd, 47, 53
06/20 8.3: 1-33 odd	06/21 8.4: 1-15 odd, 21-37 odd	06/22 8.5: 1-27 odd	06/23 8.6: 1-27 odd
06/27 8.7: 1-17 odd, 21, 25, 27, 43, 47, 51, 53, 59-65 odd	06/28 8.8: 1, 3, 5, 7, 11, 15	06/29 **TEST 3**	06/30 9.1: 1-41 odd, except 37 9.2: 1-31 odd
07/04 NO SCHOOL	07/05 9.3: 1-35 odd, 49 9.4: 1-25 odd, 33, 35, 39	07/06 9.5: 1-41 odd	07/07 9.6: 1-15 odd, 23, 25, 27 9.7: 1-31 odd
07/11 **TEST 4**	07/12 10.1: 1-25 odd, 43 10.2: 1-23 odd, 33-39 odd	07/13 10.3: 1-5, 17, 21-25, 37, 45 odd 10.4: 3-13 odd, 17, 23, 27, 33, 35	07/14 10.5: 1-5, 19-25 odd
07/18 **TEST 5**	07/19 Final Review	07/20 Final Review	07/21 FINAL EXAM

FINAL EXAM on Thursday, July 21, 11:00 am-1:00 pm