| | |
|---|---|
| **MATH 1100: BUSINESS CALCULUS** | **INSTRUCTOR: MORTENSEN** |
| **3 CREDIT HOURS** | **OFFICE: NIB 133B** |
| **SUMMER SEM. 2011** | **PHONE: 652-7764** |
| **CLASSROOM: NIB 136** | **OFFICE HOURS: BY APPOINTMENT** |

**TEXTBOOK:** **CALCULUS and Its Applications;** **by Marvin L. Bittinger, 9th edition**

**MATERIALS NEEDED** Graphing Calculator is required.  The teacher will use the TI-89.

**MATHEMATICS AT DIXIE COLLEGE**.  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

**Purpose of Math 1100**

The primary purpose of Math 1100 is to enhance basic college algebra skills and to help students apply them to real-life situations.  Using techniques of differential and intergral calculus, the class is designed for students preparing for careers in business, economics, social sciences and architecture.

**Objectives:**
Upon the sucessful completion of Math 1100, a student will demonstrate through testing;

- Discuss and analyze the concept of limits and the interrelationships of the graphic, numeric and sybolic approaches to limits.
- Discuss and analyze the interpretations of functions and their first and second derivatives.
- Apply basic calculus techniques to real-life data and functions that serve to model real-life data in careers for business, economics, social sciences and architecture.
- Apply the definite integral as the limit of a sum to applications in areas such as business, economics, sociology and ecology.

**CLASS ATTENDANCE:**  In order to be successful in mathematics, you must choose to attend class on a regular basis.  Statistics have definitely shown that grades improve with better attendance.

**CLASS PARTICIPATION:** Be willing to be involved in the class as an active participant.  Ask questions, contribute toward solutions, and be interested in the class activities.  In order to be successful, you must be involved as a participant, not on the sidelines as a spectator.

**MAKING A FRIEND IN THE CLASS**: Attempt to make a friend in your class.  You may find you enjoy sitting together and drawing support and encouragement from one another.  Study together whenever possible!!

**GETTING HELP:** Getting the right kind of help at the right time can be a key ingredient to being successful in math.  When you have gone to class on a reular basis, taken careful notes, read your text carefully, dilligently done your homework, thus making every effort possible to learn the mathematical skills, you may find that you are still having difficulty.  If this is the case, then you need to seek help.  Make an appointment with the instructor to find out what help is availible to you in the form of instructor time, tutoring service, math labs and computer software.

**HOMEWORK ASSIGNMENTS:** Keep in mind that math is a skill that can only be learned and mastered by doing it yourself with lots and lots of practice. **There is no other way!** Set aside some time each day for doing homework assignments. Do not attempt to do a whole chapter's assignments at one sitting. That is a disaster! **A minimum of two hours** spent studying outside of class for each hour in class is usually required for college courses.

**GRADING:** During the quarter, FIVE approx. 100-point tests will be given. These will contain mostly free response questions. Also on the day of the test, all homework for that chapter(s) will be due. The homework is graded on completion and is worth 20 points each chapter. Make-up exams as a general rule will not be given, the teacher may allow them in **rare** cases.

**GRADING SCALE:**

| | | | |
|---|---|---|---|
| 94%-100%=A | 90%-93%=A- | 87%-89%=B+ | 83%-86%=B |
| 80%-82%=B- | 75%-79%=C+ | 70%-74%=C | 65%-69%=C- |
| 60%-64%=D+ | 55%-59%=D | 50%-54%=D- | 0%-50%=F |

**CODE OF CONDUCT:** Dishonesty, including, but not limited to, cheating, plagarism, or knowingly furnishing false information to the college, will result in expulsion from the class.

**DISABILITY NOTICE:**

"If you are a student with a medical, psychological, or learning disability or think you might have a disability and would like accommodations, contact the Disability Resource Center (652-7516) in the Student Services Center. The Disability Resource Center will determine eligibility of the student requesting special services and determine the appropriate accommodations related to their disability."

**CALCULUS  TECHNIQUES SCHEDULE**
**(This is a tentative schedule.  The teacher may change at any time.)**

| DATE | SEC. | ASSIGNMENT |
|---|---|---|
| **MAY** 31 | R.1 | 1-31 ODDS |
|  | R.2 | 1-69 E.O.O. |
| JUNE 1 | R.3 | 1-57 E.O.O. |
|  | R.4 | 1-81 E.O.O. |
| . 2 | R.5 | 1-97 E.O.O. |
|  | R.6 | 1-15 ODDS |

**JUNE 2-6  CHAPTER R TEST**
**(In Testing Center)**

| | | |
|---|---|---|
| **JUNE** 7 | 1.1 | 11-44 ALL, 45,47,49 |
|  | 1.2 | 1-61 E.O.O. |
| 8 | 1.3 | 1-15 ODDS, 29,31,33 |
|  | 1.4 | 1-21 ODDS |
| 9 | 1.5 | 1-69 E.O.O., 81,84 |
|  | 1.6 | 1-47 E.O.O. |
| **JUNE** 14 | 1.7 | 1-69 E.O.O., 74 |
| 15 | 1.8 | 1-43 E.O.O. |
|  |  | CHAPTER REVIEW |

**15-20  CHAPTER 1 TEST**
**(In Testing Center)**

| | | |
|---|---|---|
| 16 | 2.1 | 1-33 E.O.O., 69-77 ODDS |
| **JUNE** 21 | 2.2 | 1-53 E.O.O. |
|  | 2.3 | 1-21 ODDS |
|  |  | 25-53 E.O.O. |
| 22 | 2.4 | 1-85 E.O.O. |
|  | 2.5 | 1-37 ODDS |
| 23 | 2.5 | CONTINUED |
|  | 2.6 | 1-13, 27-53 ODDS |

| | | |
|---|---|---|
| **JUNE** 28 | 2.7 | 1-45 E.O.O. |
|  |  | CHAPER REVIEW |

**28-1  CHAPTER 2 TEST**
**(In Testing Center)**

| | | |
|---|---|---|
| 29 | 3.1 | 1-57 E.O.O |
|  | 3.2 | 1-73 E.O.O. |
| 30 | 3.3 | 1-37 E.O.O. |
|  | 3.4 | 1-21 ODDS |
| **JULY** 5 | 3.5 | 1-35 ODDS |
|  |  | CHAPTER REVIEW |

**5-10 CH. 3 TEST**
**(In Testing Center)**

| | | |
|---|---|---|
| 6 | 4.1 | TBA |
|  | 4.2 | 1-65 E.O.O. |
| 7 | 4.3 | 1-57 E.O.O. |
|  | 4.4 | 1-41 E.O.O. |
| **JULY** 12 | 4.5 | 1-57 ODDS |

**12-17 CHAPTER 4 TEST**
**(In Testing Center)**

| | | |
|---|---|---|
| 13 | 5.1 | 1-13 ODDS |
|  | 5.2 | 1-33 ODDS |
| 14 | 5.3 | 1-31 ODDS |
|  | 5.6 | 1-17 ODD |
| **JULY** 19 | 5.7 | 1-31 ODDS |
|  | 6.1 | 1,3,5,7 |
|  | 6.2 | 1-39 ODDS |
| 21 |  | CHAPTER REVIEW |
| 22 |  | **CH. 5 & 6 TEST** |