

**MATH 1065: PRECALCULUS W/TRIG.**  
**5 CREDIT HOURS**  
**SPRING SEM. 2012**  
**CLASSROOM: NIB 133**

**INSTRUCTOR: MORTENSEN**  
**OFFICE: NIB 133B**  
**PHONE: 652-7764**  
**OFFICE HOURS:11-12 DAILY,1-2 TR**

**TEXTBOOK: PRECALCULUS :Sullivan**

**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 1065, College Algebra/Precalculus**

The primary purpose of Math 1065 is to intensify the skills learned in the student's previous math class. This class is principally for those students moving on to a Calculus or Physics series, although it can be used to fulfill the general education requirements of Dixie College or other colleges and universities.

**Objectives:** Upon successful completion of Math 1065, a student will demonstrate through testing

- \* Apply functional notation.
  - \* Determine symmetries that exist in the graph of an equation.
  - \* Graph polynomial functions and find their intercepts, maxima, and minima.
  - \* Analyze the key components of the graph of polynomial and rational functions.
  - \* Compute the composition and inverses of functions.
  - \* Graph exponential and logarithmic functions
  - \* Apply properties of logarithms and exponents in simplifying expressions and solving equations.
  - \* Solve systems of linear equations using substitution, eliminations, matrices, and Cramer's Rule
  - \* Perform matrix arithmetic, including determinants
  - \* Solve non-linear systems of equations and inequalities
  - \* Find terms and sums of terms of arithmetic and geometric sequences and series.
  - \* Compute the terms of a binomial expansion.
- Manipulate and evaluate trigonometric functions.  
Use proofs to work with the trigonometric functions to prove trigonometric identities.  
Demonstrate the ability to use trigonometric identities to solve real world applications.  
Use vectors geometrically and algebraically to solve problems.

**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. Make-up exams as a general rule will not be given, the teacher may allow them in **rare** cases.

**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 regular basis, taken careful notes, read your text carefully, diligently 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 available 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, TEN or ELEVEN 100-point(approx) tests will be given. These will contain mostly free response questions. Also on the day after the test, all homework for that chapter(s) will be due. The homework is graded on completion and is worth 20 points each chapter. The final exam will be **comprehensive(including chapters, 7 and 13)** and worth approximately 200 points. **All** tests will 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, the teacher may allow them in **rare** cases. **Reading quizzes will be given at the discretion of the teacher.**

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

**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

**\*\*ALL GRADES WILL BE EMAILED TO A DMAIL ACCOUNT ONLY.**

**DISABILITY STATEMENT**

"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 service and determine the appropriate accommodations related to their disability."

**PRECALCULUS W/TRIG-SPRING  
2012(DAILY) (This is a tentative schedule. The  
teacher has the right to modify if necessary)**

**DATE SEC. ASSIGNMENT**

JAN.	9	R.1	1-53 E.O.O.
	10	R.2 R.3	1-65 E.O.O. 1-93 E.O.O.
	11	R.4	11-41 E.O.O.
	12	1.1	17-85 E.O.O.
	13	1.2	1-8 ALL 9-27 ODDS
<b>JAN.</b>	<b>16</b>	<b>MARTIN LUTHER KING DAY NO SCHOOL</b>	
	17	1.3	11-69 E.O.O.
	18	1.4 1.5	9-16 ALL, 25-37 ODDS 7-18 ALL, 39-67 E.O.O.
	19	1.7	3-39 E.O.O.
	20	CHAPTER R & 1 REVIEW	
	<b>TBA</b>	<b>CHAPTER R &amp; 1 TEST (IN TESTING CENTER)</b>	
<b>JAN.</b>	<b>23</b>	2.1 2.2	13-45 E.O.O. 17,18
	24	2.3	13-93 E.O.O.
	25	2.4	19-53 E.O.O.
	26	2.5	3-21 ODDS
	27	2.6	3-17 ODDS
<b>JAN.</b>	<b>30</b>	2.7 2.8	9-33 E.O.O. 17-61 E.O.O.
	31	CHAPTER 2 REVIEW	
	<b>TBA</b>	<b>CHAPTER 2 TEST (IN TESTING CENTER)</b>	
<b>FEB.</b>	<b>1</b>	3.1	15-25 ODDS, 41-93 EOO
	2	3.2	13-23, 43-53 ODDS
	3	NO CLASS (SLC MEETINGS)	
<b>FEB.</b>	<b>6</b>	3.3	7-43 EOO

	7	3.4	19-47 ODDS
	8	CHAPTER 3 REVIEW	
	<b>TBA</b>	<b>CHAPTER 3 TEST (IN TESTING CENTER)</b>	
	9	4.1	13-57 EOO
	10	4.2	11-79 EOO
<b>FEB</b>	13	4.3	33-81 EOO
	14	4.4	9-53 EOO
	15	4.5	13-89 EOO
	16	4.6	5-57 EOO
	17	4.7	9-49 EOO
<b>FEB. 20</b>	<b>PRESIDENTS DAY (NO SCHOOL)</b>		
	21	4.8	1-12 ALL
	22	CH. 4 REVIEW	
	<b>TBA</b>	<b>CH. 4 TEST (In testing ctr.)</b>	
	23	5.1	1-29 E.O.O., 39,4113-93 EOO
	24	5.2	13-91 EOO
<b>FEB. 27</b>	5.3	11-87 EOO	
	28	5.4 5.5	21-57 EOO TBA
	29	CHAPTER 5 REVIEW	
	<b>TBA</b>	<b>CHAPTER 5 TEST (IN TESTING CENTER)</b>	
<b>MAR. 1</b>	6.1	7-51 EOO 6.2	TBA
	2	6.3	11-79 EOO <b><u>LAST DAY TO DROP</u></b>
<b>MAR. 5</b>	6.4	19-87 EOO	
	6	6.4	CONTINUED
	7	6.5	23-67 EOO
	8	6.6	7-27 ODDS

9 6.7 11-33 ODDS

**MAR. 12-16 SPRING BREAK  
NO SCHOOL)**

**MAR. 19** CH. 6 REVIEW

**TBA CH. 6 TEST  
(IN TESTING CENTER)**

20 7.1 9-57 E.O.O.

21 7.2 9-41 EOO

22 7.3 9-45 EOO, 47  
7.4 5-21 EOO

23 CHAPTER 7 REVIEW

**TBA C HAPTER 7 TEST  
(IN TESTING CENTER)**

**MAR. 26** 8.1 9-81 EOO  
8.2 13-27 ODDS, 37-59 E.O.O.

27 8.3 11-59 E.O.O.

28 8.4 9-69 EOO, 73,75,77,81,89

29 8.5 7-25 ODDS

30 8.7 23-47 EOO

**APR. 2** CH. 8 REVIEW

**TBA CH. 8 TEST  
(In testing ctr.)**

3 9.1 TBA  
9.2 11-18 ALL, 19-71 EOO

4 9.3 13-16 ALL, 17-69 EOO, 71

**5** 9.4 15-18 ALL, 19-59 EOO

6 9.6 7-35 EOO

**APR. 9** 9.7 7-25 ODDS

10 CH. 9 REVIEW

**TBA CH. 9 TEST  
(In testing ctr.)**

11 10.1 9-69 EOO

12 10.3 7-14 ALL, 15, 17, 33

13 10.5 5-45 EOO

**APR.** 16 10.6 5-41 EOO

17 10.7 11-51 EOO, 53

18 CH. 10 REVIEW

**TBA CH. 10 TEST  
(IN TESTING CENTER)**

19 11.1 9-77 EOO

20 11.2 15-59 EOO

**APR. 23** 11.3 19-67 EOO, 88,90

24 11.5 5-41 EOO

25 CH. 11 REVIEW

**TBA CH. 11 TEST  
(In testing ctr.)**

26 TBA OR FINAL REVIEW

**APR. 27** **FINAL EXAM  
9:00-12:00 IN CLASS**