CASPER COLLEGE COURSE SYLLABUS

COURSE NUMBER & TITLE: MATH 1400, Section 3, Pre-Calculus Algebra

SEMESTER: Fall 2006

LECTURE HOURS: 4 CREDIT HOURS: 4

CLASS TIME: 10:00-10:50 AM DAYS: MWThF ROOM: PS 202

INSTRUCTOR’S NAME: Diane Ginsbach EMAIL: ginsbach@caspercollege.edu

INSTRUCTOR’S OFFICE: PS 130 PHONE: Office 268-2866

Academic Assistant 268-2513

OFFICE HOURS: Monday 12 - 12:50 PM
Tuesday 7 – 7:50 AM
Wednesday 9 - 9:50 AM & 12 - 12:50 PM
Thursday 11 - 11:50 AM
Friday 9 - 9:50 AM
or by appointment.

COURSE DESCRIPTION: Elementary functions and graphing for mathematics, science, business, and engineering majors preparing for the regular calculus sequence. Includes exponential and logarithmic functions.

PREREQUISITE: “C” or better in DVST 0930 or an ACT Composite Math score of 23 or better, within the past year, or an appropriate COMPASS Exam score.

GENERAL OBJECTIVES: The general objectives are:
1. Graphs
2. Functions and Their Graphs
3. Polynomial and Rational Functions
4. Exponential and Logarithmic Functions

SPECIFIC OBJECTIVES (Outcomes): The specific objectives are:
1. Rectangular Coordinates: Graphing Utilities
2. Solving Equations in One Variable Using a Graphing Utility
3. Circles
4. The Graph of a Function
5. Linear Functions and Models
6. Properties of Functions
7. Quadratic Functions and Models
8. Properties of Rational Functions
9. Polynomial and Rational Inequalities
10. Complex Zeros: Fundamental Theorem of Algebra
11. One-to-one Functions: Inverse Functions
12. Logarithmic Functions
13. Logarithmic and Exponential Functions
14. Graphs of Equations in Two Variables
15. Lines
16. Functions
17. Properties of Functions
18. Library of Functions: Piecewise-defined Functions
19. Mathematical Models: Constructing Functions
20. Polynomial Functions and Models
21. The Graph of a Rational Function: Inverse & Joint Variation
22. The Real Zeros of a Polynomial Function
23. Composite Functions
24. Exponential Functions
25. Properties of Logarithms
26. Compound Interest
27. Exponential Growth and Decay; Newton’s Law; Logistic Growth and Decay
28. Building Exponential, Logarithmic, and Logistic Models from Data
METHODOLOGY: I plan to teach this class with short lectures followed by examples and then interspersed with student/team activities. I would like to implement some small group work where appropriate. Please feel free to ask questions at any time. I encourage small group, math related discussions during the activities.

EVALUATION CRITERIA: Homework is assigned every class period. Remember you are in college and it is your RESPONSIBILITY to complete the homework! Always make sure and get your questions answered. There will be announced and/or unannounced and/or take-home quizzes throughout the semester. There will be correction assignments for each test. Each quiz and assignment will be worth 10 points. I will drop one to three 10 point assignments for the semester. The remaining 10 points assignments will be added to your cumulative point total. Additionally, there might be some other assignments for points during the semester.

There will be a test over each chapter (maximum of 4 chapter tests). They will be worth approximately 100 points each. There will be a comprehensive final exam (1-3 PM Monday, Dec 18th) worth at most 150 points. Grades are determined by the total points earned divided by the total points for the semester (90%+ A, 80-89% B, 70-79% C, 60-69% D, 59% and below F). Keep track of your points throughout the semester so you will always know your grade. Please let me know ahead of time if you are unable to make it to class for an exam. These need to be made up before the test date.

REQUIRED TEXTS, READINGS, MATERIALS: Precalculus – Enhanced with Graphing Utilities (Fourth Edition) by Sullivan and Sullivan, graphing calculator (preferably a TI-83 or TI-83+ or TI-84). Calculators can be leased from the Math Learning Center.

LAST DATE TO CHANGE TO AUDIT STATUS OR TO WITHDRAW WITH A “W” GRADE: Friday, October 27, 2006.

STUDENT RIGHTS & RESPONSIBILITIES: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College student. It is the policy of Casper College to provide appropriate accommodations to any student with a documented disability. If you have a need for accommodation in this course, please make an appointment to see me at your earliest convenience. If you have any problems with this class, please go through the proper chain of command: myself, Head of the Math Department, Division Chair, VP Student Services, VP Academic Affairs.

TENTATIVE SCHEDULE WITH COURSE CONTENT: We will cover Chapters 1 through 4. We will cover approximately one section each class period and homework will be assigned after each section.

My best suggestions for succeeding in this class are:
1. Attend class.
2. Complete the homework.
3. Get your questions answered.

Remember the best ability anyone can have is respons”ability”! 😊