CASPER COLLEGE COURSE SYLLABUS
MATH 1400-01 Pre-Calculus Algebra

Semester / Year: Fall 2015

Lecture Hours: 4   **Credit Hours:** 4

Class Section(s) / Days/Times: MTWTh   10:00 - 10:50 am

Classroom: PS 222

Instructor's Name: Claudia Stewart

Office: PS 344

Office Phone: 307-268-2520

Email: cstewart@caspercollege.edu or use Moodle Class Communication

Office Hours: See page 4. Other times are available by appointment.

Course Description: (From The Casper College Catalog)
MATH 1400 Pre-Calculus Algebra (4L, 4CR) Elementary functions and graphing for mathematics, science, business, and engineering majors preparing for the regular calculus sequence. Includes exponential and logarithmic functions**.**

Statement of Prerequisites: A grade of "C" or better in MATH 0930, MATH 0934, an ACT math score of 23 or better or appropriate COMPASS exam score (Algebra 66 -100 or College Algebra 0 – 64) or other appropriate placement test score within the past year.

Outcome:
Use quantitative analytical skills to evaluate and process numerical data. Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

General Objectives: Chapter 1: Introduction to Functions and Graphs, Chapter 2: Linear Functions and Equations, Chapter 3: Quadratic Functions and Equations, Chapter 4: More Nonlinear Functions and Equations, Chapter 5: Exponential and Logarithmic Functions, Chapter 9: (Sections 9.1 & 9.3 only): Systems of Equations

Specific Objectives: Students who successfully complete this course will:

- Be able to use function concepts including; evaluating, operations, composition, inverses, and transformations.

- Be able to solve polynomial, exponential, and logarithmic equations and relate and interpret these solutions.

- Be able to graph linear, polynomial, exponential, logarithmic, absolute value, square root, piecewise defined, and rational functions.

- Be able to model and interpret real-world problems using polynomial equations or regressions.

- Be able to solve systems of equations.

- Be eligible to take Math 1405, Math 2350, Stat 2050 or Stat 2070 within the next academic year.

Methodology: This class is taught using ***Precalculus with Modeling and Visualization*** by Rockswold, 5th Edition, Pearson Publishing. We will also be using a variety of technology including a TI-83/84 calculator, Geometer's Sketchpad and MyMathLab online homework. Each class will begin with

questions from the class. Questions for class may also be submitted via e-mail or Moodle Class Communication if you feel uncomfortable asking in class. Please keep in mind that all questions regarding coursework are welcomed. After questions have been answered, new material will be presented.

Evaluation Criteria: Your grade in this course will be determined by overall points on homework, quizzes, tests, and a cumulative final exam.

- **Homework** will be assigned for all sections. They may include the following types:

  - Written homework and worksheets: These must be done by hand, **in pencil**, and on graph paper as appropriate. **Please** show all of your work so that I can give you partial credit if it is due. All answers must be clearly indicated with either in a box or a <u>double colored-line</u> underneath your answer.

  - MyMathLab, through the publisher. You must keep a notebook of your work for your online homework.

  - **Notebook of all MML homework assignments**. These should be written out like regular homework problems, organized by section, give original problem, showing work and answer. This will be turned into me on each test day for grading.

  - Screen prints of your calculator (TI-83, 83+, 84, Nspire, etc.) either using TI-connect (free software) or a printed out picture. Silver-link cord (for use with TI connect) is available in the MLC for use in the MLC only.

  - **Late homework policy:** You will be allowed three late homework assignments. After that late homework will not be accepted unless you have made prior arrangements with me.

- **In-Class Labs**: We may be using the computer lab. Classes in the computer lab will be annouced prior to class. Participation in these activities is mandatory.

- **Tests & quizzes:** There will be four or five tests and some quizzes. All exams must be taken. If you need to miss or reschedule an exam, please let me know prior to the test or the day of the test. Exams will only be rescheduled for doctor's appointments, or for an emergency. Please notify the college in case of an emergency. Quizzes will be done on MyMathLab.

- **Final:** The final exam date and time will be announced at a later date. All students must take the final.

- **Attendance** is NOT part of the course evaluation, but I do keep an attendance record. New material will be presented daily and it is **your responsibility** to keep up with the course if you need to miss a class. PLEASE let me know in advance if possible if you need to miss class or an exam and we can make arrangements to review the new material or reschedule your exam. Exams will be rescheduled **only** for excused absences (ones with a documented reason, i.e. doctor's appt., etc.). Please notify student services if you have an emergency.

Your grade in this course will be based on points:

Homework: written and MML	2 – 30 points each
Online homework notebook	1.5 – 5 points per chapter
Tests and Quizzes	50 – 100 points each
Final	Approximately 100 points

Point Scale:

Points will be totaled and students will be assigned letter grades based upon the percentage of the total points they earned in the course.

A = 100 – 90%   B = 89 – 80%   C = 79 – 70%   D = 69 – 60%   F = <60%

Required Materials:
- Publisher Resources: **MyMathLab (MML) Access** is needed for many homework assignments. MML comes with electronic version of textbook therefore the actual textbook is NOT required.
- Calculator with capability to do graphing and multi-step mathematics. **Cell phones are not acceptable under any circumstance.** You may rent a TI-84 from the Math Learning Center.
- Internet access. There are several locations around campus where the internet can be accessed.
- A 3-ring binder that should contain all class handouts, notes, and assignments. This binder should be brought to each class. Organization is a factor in student success!
- Notebook for online homework work.
- Colored pencils, pens or highlighters.
- Graph paper for graphing homework and note-taking. Engineer paper works well for this.
- Pencils, eraser, and straight-edge.

Recommended Materials:
- Small pencil sharpener – the sharpeners in the classrooms do not work very well.
- Stapler or make sure any multiple page assignments are stapled prior to coming to class to turn in.
- 3-hole punch for organizing your materials in your binder.

Class Policies

Electronics:
a. Cell phones and other electronic devices are to be turned off (or at least to "silent/vibrate" mode) during class. If you have an emergency, please leave the classroom to handle it.
b. **No laptops or tablets unless they are strictly used to access the online textbook, homework or to take notes.**

Attendance, Preparedness & Participation:
a. Attendance is crucial to student success. However, being in the seat doesn't guarantee a passing grade! It is expected that you will have regular attendance, however, if you have a problem and must miss class, please call, leave a voice-mail, e-mail, or moodle-mail me so that I know you're okay and can update you on missed material! Students who get behind on their assignments are often unsuccessful in the course. If something happens in your life that makes it a real hardship for you to meet the deadlines, please speak to me in class, e-mail me, call me, or stop by my office **before** you are so far behind that you can't finish the course. I'm here to help you learn and reach your goals, and I'm always willing to work with my students to make that happen.

b. When you've missed a class, it is your responsibility to contact classmates and/or me to get the information you missed. Students needing to miss class due to college-related activities (debate, livestock judging, athletics, etc.) should submit assignments early or make personal contact with me to discuss alternative dates. Missing for school activities does not relieve students of their

responsibilities to the class. **Remember to check moodle for class notes or other handouts and reference material!**

c. **Late assignments will not be accepted**.

d. No makeup work will be allowed for assignments, group activities or quizzes completed during class without instructor permission. Permission to complete makeup work is at the discretion of the instructor and seeking permission for make-ups is the student's responsibility.

Last Day to Withdraw: Thursday, November 12, 2015. This is a firm deadline; no exceptions.

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Academic Dean, and lastly the Vice President for Academic Affairs.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly.

Academic Dishonesty - Cheating & Plagiarism: Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately outside of class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu. The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

Claudia's Schedule for Fall 2015*					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9:00 AM	Office	Math 0930-04 PS 222	Math 0930-04 PS 222	Math 0930-04 PS 222	Math 0930-04 PS 222
9-10:00 AM	Math 0900-01 PS 222	Math 0900-01 PS 222	Math 0900-01 PS 222	Math 0900-01 PS 222	Office
10-11:00AM	Math 1400-01 PS 222	Math 1400-01 PS 222	Math 1400-01 PS 222	Math 1400-01 PS 222	Office
11:00AM-12:00PM	Office	Office	Office	Office	
12:00-2:00PM		Office			
2-3:00 PM		Math Meeting			
* I am also teaching an online course: Math 0900-N1 and am in my office most afternoons					

Tentative Schedule

Week	Dates	Topics
1	24-Aug to 27-Aug	Intro to class, Review factoring, 1.2 - 1.3 Distance & midpoint formulas, circles
2	31-Aug to 3-Sep	1.4 Min, max, rate of change, difference quotient, 2.1 Lines and modeling functions
3	7-Sep to 10-Sep	*Labor Day Holiday*, **Chapter 1 test**, 2.4 modeling functions and linear regression
4	14-Sep to 17-Sep	2.4 Modeling, regression and piecewise
5	21-Sep to 24-Sep	2.5 Absolute value and inequalities; 9.1 & 9.3 Systems of equations
6	28-Sep to 1-Oct	**Chapter 2 & 9 Test**, 3.1 Quadratic functions, graphs and applications
7	5-Oct to 8-Oct	3.2 Solving quadratics and applications
8	12-Oct to 15-Oct	3.2 - 3.5 More quadratics, complex numbers, inequalities, transformations
9	19-Oct to 22-Oct	*Fall Holiday,* 3.5 Transformations, 4.1 Other functions
10	26-Oct to 29-Oct	**Chapter 3 Test**, 4.1 More non-linear functions and equations, 4.2 polynomial models
11	2-Nov to 5-Nov	4.2 - 4.4 Polynomial functions, models, piece-wise, dividing polynomials, Rational zeros
12	9-Nov to 12-Nov	4.4 - 4.6 Zeros of polynomials, rational functions
13	16-Nov to 19-Nov	4.6 Rational functions and graphs; 5.2 & 5.3 Inverse and exponential functions
14	23-Nov to 26-Nov	**Chapter 4 Test**, 5.3 Inverse and exponential models
15	30-Nov to 3-Dec	5.4 - 5.6 Logarithmic functions, properties, solving exponential and logarithm equations
16	7-Dec to 10-Dec	5.6 & 5.7 Exponential, logarithmic, logistic modeling, **Chapter 5 Test**
17	14-Dec to 15-May	Finals (no classes)