CASPER COLLEGE COURSE SYLLABUS

COURSE NUMBER AND TITLE: **MATH 1000-07 Problem Solving**
SEMESTER / YEAR: **Fall, 2015**

LECTURE HOURS: 3, LAB HOURS: 0, CREDIT HOURS: 3

CLASS TIME: 7:00-8:30 p.m. MW CLASS ROOM: PS 107

INSTRUCTOR: William Ferrell INSTRUCTOR'S OFFICE #: NONE
PHONE: (307) 235-4118 (with Voice Mail) E-MAIL: possumjack@bresnan.net
Cell: (307) 262-7941

OFFICE HOURS:
6:45-7:00. TTH If these times don't work for you, please feel free to make an appointment!

PREREQUISITES: A grade of "C" or better in DVST 0920 within the past year, an ACT score of 21 or better within the past year, or the appropriate placement by the COMPASS exam again within the past year.

COURSE DESCRIPTION**:** Focuses on the strategies of problem solving. Topics in the course are taken from financial mathematics, logic, probability, statistics, and geometry.

GENERAL OBJECTIVES: This course is designed to give you a solid preparation for further math courses. We will investigate various topics in math such as Problem Solving Techniques, Logic, Statistics, Probability, Finances, Geometry, and Discreet Math. Students who successfully pass this class with a grade of "C" or better will be prepared to enter STAT 2005, Elementary Statistics, or STAT 2070, Social Science Statistics.

SPECIFIC OBJECTIVES: Students will learn about problem solving techniques and strategies, and then use them to solve problems involving finance, probability, statistics, geometry, and logic. If time permits, students will learn the terms used in voting theory.

METHODOLOGY: This is primarily a lecture course with classroom activities when appropriate. We will collect homework; take quizzes and exams and apply our knowledge to complete written projects, as scheduled. In the beginning of each class, unless it is an examination day, we will begin with questions and clarifications. After that, we will either finish up a topic or continue with new material.

It may be necessary for you to search the internet for information or research a topic, so it will be assumed that any student in this class has access to the Internet. Having Internet access at home is convenient but not necessary as long as you have access somewhere, such as one of the computer labs at Casper College. Let me know if you need any help.

Students will be assessed on a regular basis by homework, projects, quizzes, and exams. Points may be deducted for not showing work even if the answer is correct, because the process is in some way much more important than the answer and is a way to continue to measure the problem-solving process.

What if you need more help or have questions!?!?!?!? Please see a partial list of options for you:
1) **BEFORE CLASS** - either in person, by e-mail (possumjack@bresnan.net) or by phone ((307) 262-7941).
2) **MATH LEARNING CENTER LOCATED IN PS 104**. Hours will be from 7 am - 2pm and 5-7pm MTuWTh and 7 am - 1pm Fridays.
3) **PEER TUTORING** -

ASSESSMENT:
1) **HOMEWORK:** Problems will be assigned from the textbook - these will be collected. As with any class - it is important to stay current and ask questions as they arise. Whereas late homework is not ideal, no homework will be accepted after a quiz or test is given over a particular set of information.

2) **QUIZZES**: Quizzes will typically be problems from the homework assignments. My way of seeing how you are doing when your books and notebooks are closed. It is my hope that these will help you be better prepared for the exam.

3) **PROJECTS**: The projects are a little more involved than homework assignments. Projects will require you to work with your textbook, your instructor, the Internet, and other outside sources. There may be some research involved, and there will be a graded writing component with each project. This may be a new assessment to you in the world of math. I have come to believe that it is an important inclusion into our curriculum. It is meant to test how well you can "talk math" - if you can explain something, then you are better apt to understand something deeper and for a longer period of time.

4) **EXAMS**: See the tentative schedule at the end of this document for the material for each exam and for the timing of each exam. If you miss an exam or quiz you will want to talk to me about a makeup.

EVALUATION CRITERIA: An approximate breakdown of your grade in this course is as follows:

- Homework Average
- Quizzes
- Projects
- Exams
- Final exam

Your points will be averaged to determine your grade with the following distributions: 90-100%=A, 80-89%=B, 70-79%=C, 60-69%=D, 0-59%=F.

REQUIRED TEXT, READINGS, MATERIALS:
1) "Thinking Mathematically" by Blitzer, 6th edition, published by Pearson/Prentice-Hall is the required textbook. There is also an optional student guide available for purchase. You can purchase the textbook by going to the Casper College bookstore in person or by visiting their web site at: http://shop.efollett.com/htmlroot/storehome/caspercollege184.html or simply go on line.
2) A scientific calculator. You will not need a graphing calculator, but if you already have one that would be fine. If your calculator only does addition, subtraction, multiplication, and division, you will need to buy or borrow a scientific calculator. A good scientific calculator will probably cost less than $20 at most stores. If the calculator doesn't say "scientific" on it - look for keys that have things like "log", "ln", "sin", etc on them.
3) Access to the Internet.

LAST DATE TO CHANGE TO AUDIT STATUS OR TO WITHDRAW:

Thursday, November 11th, 2015

NO Audits will be allowed after this date

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.

- If you have a complaint, problem, suggestion, etc. concerning this course, please consult with me, the instructor, first. If we can't resolve the issue, we will then consult with the Dean of the School of Sciences.
- 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 a Casper College counselor or me at your earliest convenience.

TENTATIVE SCHEDULE WITH COURSE CONTENT

Week # Beginning:	Tuesday	Thursday	Comments
#1: **8/24**	Introduction Class Projects	Chapter1 Estimation, graphs math models 1.1 &1.2	Welcome Back!
#2: **8/31**	1.3 Problem solving	Chapter 2 Set theory 2.1, 2.2	
#3: **9/7**	**Labor day no class**	2.3 Venn diagrams and set operations, 2.4 and 2.5 survey problems	
#4: **9/14**	Finish Chapter 2	**Exam Chapters 1&2**	
#5**: 9/21**	Chapter 8 8.1 Per cent, taxes	8.3 8.4 interest- simple and compound	
#6:**9/28**	8.5, 8.6 8.7 Annuities, installment loans, amortizations	8.8 credit cards	
#7**: 10/5**	**Exam Chapter8**	Chapter 9 Measurement 9.1,9.2, &9.3	
#8:**10/12**	Chapter 9 Measurement 9.1,9.2, &9.3	**Exam Chapter 9**	midterms
#9:**10/19**	**Fall break no class**	Start geometry	
#10:**10/26**	Chapter 10 Geometry 10.1,10.2	10.3 and 10.4	
#11: **11/2**	10.5,10.6,10.7 Finish chapter10	**Exam chapter 10**	
#12:**11/9**	Chapter 11 11.1 Fundamental counting principle	11.2 and 11.3 Perm/combinations	**Last day to withdraw from this or other college class w/ audit 11/12/15@5pm**
#13**: 11/16**	11.4 and 11.5 Probability	**11.6,11.7**	
#14: **11/23**	Review Chapter 11	**Thanksgiving break no class**	
#15: **11/30**	**Exam Chapter11**	Chapter 12 12.1, 12.2 Sampling; Measure	
#16: 12/7	12.3, 12.4,12.5 Dispersions, distributions, Scatter plots	**Exam Chapter 12**	
#17: 12/14	**Finals week**		