

Casper College Course Syllabus

Course Number And Title: MATH 1000-N1 Problem Solving Mathematics

Semester / Year: Fall 2015

Lecture Hours: 3 **Lab Hours:** 0 **Credit Hours:** 3

Class Time: N/A

Days: N/A

Room: N/A

Instructor's Name: Nick DeSalvo **e-mail:** ndesalvo@caspercollege.edu

Instructor's Contact Information: Office #: PS 127 Phone: (307) 268-2504

Office Hours:

Mondays: 10:00 – 10:50 a.m.

Tuesdays: 10:00 – 10:50 a.m. and 1:00 – 1:50 p.m.

Wednesdays: 10:00 – 10:50 a.m.

Thursdays: 10:00 – 10:50 a.m. and 1:00 – 1:50 p.m.

Fridays: 9:00 – 9:50 a.m. and 10:00 – 10:50 a.m.

Other times may be available by appointment.

Course Description: Focuses on the strategies of problem solving. Topics in the course are taken from financial mathematics, set theory, logic, probability, statistics and discrete mathematics and “just in time” algebra topics, such as exponents that are necessary to students in their success in this class and in their major.

Statement of Prerequisites: A “C” or better in MATH 0900; or an ACT Math score of 19 or better; or a COMPASS placement score in the Pre-Algebra domain of 45-100 and Algebra domain of 0-39 within the past year, or final cumulative high school GPA of 3.7 or better.

Goal: The objectives of this course are to introduce the student to a different view of mathematics than that of the traditional algebra curriculum by presenting topics that are applicable to real-life situations. It is also designed to introduce the student to a variety of ways of solving problems they may encounter in their lifetime and show the relevance of mathematics to everyday life.

Outcomes:

Solve problems using critical thinking and creativity. Use quantitative analytical skills to evaluate and process numerical data.

Course Objectives: Students should:

1. Be able to apply simple financial formulas to solve problems involving compound interest, annuities, loans, etc.
2. Be able to use simple financial formulas to analyze problems that require financial decisions.

3. Be able to use the empirical, experimental, and subjective definitions of probability to do probability problems involving one event.
4. Be able to apply the laws of probability to analyze problems involving multiple events and expected value.
5. Be able to describe a data set using basic simple statistics and graphics.
6. Be able to construct an interval estimate from the normal distribution and understand it has a specified certainty of being correct.
7. Have a greater appreciation for the beauty, utility and significance of mathematics as a liberal art.

Methodology: This is an internet course, so there are no face-to-face lectures. We will be using Moodle to participate in discussions and know what is required to be done each week. Quizzes will be done with the online learning system MyMathLab. The process on how you will register and use Mymathlab will be described in a link on the Moodle class site.

All exams will be proctored (some exams may be on MyMathLab, and some may be “pencil and paper”). Those who live in Casper will take their exams at the Academic Testing Center at Casper College. Those who don’t live in Casper will need to take their exams at an approved testing center, and a proctoring fee may be required. Each student is responsible for making an appointment for each exam ahead of time (24 hours ahead, during business hours, if you are taking exams at Casper College).

This class is not self-paced, meaning there are deadlines for quizzes and exams. If there is a reason you can’t take a quiz or exam by the deadline, contact me as soon as possible.

Evaluation Criteria: The total of your exams, assignments, and final exam will be divided by the points possible. Your grade will be determined as follows: 90-100%=A, 80-89%=B, 70-79%=C, 60-69%=D, and 0-59%=F.

Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

Required Text, Readings, Materials:

- Regular access to the internet for accessing the e-book version of the textbook, and for doing online quizzes, accessing help, videos, etc. You do not need to purchase the physical book ("Thinking Mathematically", by Blitzer, 6th edition, published by Pearson / Prentice Hall).
- You will need an account at Pearson, either an account you already have, or you can create a new one at www.pearsonmylabandmastering.com . The course ID for this class is **desalvo11387**.
- The MyMathLab access code for this class must be purchased. You can purchase the code at the college bookstore, or with a credit card or PayPal when you register at Pearson. You can request a 14 day free trial, but you will eventually need to purchase.
- A graphing calculator (such as a TI-83, TI-84, etc.) is strongly recommended, although a scientific calculator might suffice.

Class Policies:

Last Date to Change to Audit Status or Withdraw with a W Grade: Thursday, November 12.

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 Dean, and lastly the Vice President for Academic Affairs.

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 for more information on this topic.

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

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after 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.

Tentative Calendar or Schedule Indicating Course Content:

(This schedule is tentative and subject to change. Frequently consult Moodle for schedule updates.)

Week #1 August 24-28	1.1 Inductive and Deductive Reasoning
	1.3 Problem Solving
Week #2 Aug. 31 – September 4	8.1 Percent, Sales Tax, and Discounts
	8.2 Income Tax
Week #3 September 8-11	8.3 Simple Interest
	Exam 1
Week #4 September 14-18	8.4 Compound Interest
	8.5 Annuities, Methods of Saving, and Investments
Week #5 September 21-25	8.6 Cars
	8.7 The Cost of Home Ownership
Week #6 Sept. 28 – October 2	8.8 Credit Cards
	Exam 2
Week #7 October 5-9	11.1 The Fundamental Counting Principal
	11.2 Permutations
Week #8 October 12-16	11.3 Combinations
	11.4 Fundamentals of Probability
Week #9 October 21-23	Fall Break (Mon, Tues)
	11.5 Probability with the FCPrincipal, Perm., Comb.
Week #10 October 26-30	11.6 Events Involving Not and Or; Odds
	11.7 Events Involving And; Conditional Probability
Week #11 November 2-6	11.8 Expected Value
	Exam 3
Week #12 November 9-13	12.1 Sampling, Frequency Distributions, and Graphs
	12.2 Measures of Central Tendency
Week #13 November 16-20	12.3 Measures of Dispersion
	12.4 The Normal Distribution
Week #14 November 23-24	12.5 Problem Solving with the Normal Distribution
	Thanksgiving Break (Wed, Thurs, Fri)
Week #15 Nov. 30 – Dec. 4	Parts of chapter 9 if time permits (Metric System, area, volume, weight, temperature)
Week #16 December 7-11	Exam 4
Final Exam week:	Monday December 14 – Thursday December 17
	The comprehensive final exam is optional and can be used to replace a low or missing exam.