1. Course Description: This survey course is designed for liberal arts and technical students. The course provides an opportunity to acquire an appreciation of the nature of mathematics and its relation to other aspects of our culture. The course is rigorous but not rigid. Core topics include critical thinking, problem solving, number systems, number theory, ratios, proportions, quadratic equations, functions, graphs, consumer math, financial management, metric measurement, set theory, and selected topics from geometry, probability and statistics.

2. Prerequisites: MATH 010 with a "C" or higher or COMPASS Algebra (not Pre-Algebra) score of 46 or higher.


4. Course Objectives:
The student will demonstrate a working knowledge of the material covered in Chapters 1-13 of the textbook. A detailed list of course objectives is attached to this syllabus.

5. Policies and procedures:
Exam Policy: Plan on attending class when exams are scheduled. If circumstances force you to miss a scheduled exam you must let me know before class. If you miss an exam without prior notification you will not be allowed to make it up. You may reach me at either number above or leave a message on my machine at home. Assignments: Practice is a necessary part of understanding mathematics. Homework assignments will be given each week and due the following week. If the assignment is late it you will lose 10% per day. If you have questions call me or email. Cheating: See 2003-2004 CSI catalog, page 16 under “Honesty”
No cell phones, pagers etc in class!!!!

6. Outcomes Assessment:
Students will be asked to complete a student evaluation at the end of the semester. Weekly assignments, tests, and a comprehensive final exam will be used to assess how well students achieve the course objectives. As part of departmental analysis of outcomes in this course and its place in the Mathematics program, student completion of the pre-requisite, success in the current course, success in subsequent courses and student satisfaction will be reviewed by the instructor. A report containing this information will be submitted by department faculty to determine what, if any, changes can be made to improve the course in terms of content, focus, and instruction.

7. Grading Procedure: 3 exams (65%) Homework (10%) Final Exam (25%) Letter grade will follow the usual 90, 80, 70, 60% scale.

8. Aids available to you for this course: Call or email me if you are having trouble in the course. Tutors are available in the Burley Center, check flyers for times and dates. Videos are available in the office for checkout.

9. Disabilities: Any student with a documented disability may be eligible for related accommodations. To determine eligibility and secure services, students should contact the
coordinate of Disability Services at their first opportunity after registration for a class. CSI
Student Disability Services is located on the second floor of the Taylor Building on the Twin
Falls Campus, 208-732-6250 (voice) or 734-9929 (TTY) or aflannery@csi.edu

10. **On-line course evaluation statement:**
Students are strongly encouraged to complete evaluations at the end of the course. Evaluations
are very important to assist the teaching staff to continually improve the course. Evaluations are
available online at: http://evaluation.csi.edu. Evaluations open up two weeks prior to the end of
the course. The last day to complete an evaluation is the last day of the course. During the time
the evaluations are open, students can complete the course evaluations at their convenience from
any computer with Internet access, including in the open lab in the Library and in the SUB. When
students log in they should see the evaluations for the courses in which they are enrolled.
Evaluations are anonymous. Filling out the evaluation should only take a few minutes. Your
honest feedback is greatly appreciated!
Math 123 – Math in Modern Society
Unit I – Number Theory

Jan 17- Chapter 1 Problem Solving and Critical Thinking
Sect 1.1 Inductive and Deductive Reasoning
p. 8 #2, 4, 12, 22, 26, 30, 38, 43
Sect 1.3 Problem Solving
p. 32 #4, 8, 10, 20, 24, 30, 37, 40, 46

Chapter 4 Number Representation and Calculation
Sect 4.1 Our Hindu-Arabic System and Early Positional Systems
p. 169 #16, 28, 36, 48
Sect 4.2 Number Bases in Positional Systems
p. 175 # 4, 12, 32, 42, 44

Jan 24- Chapter 5 Number Theory and the Real Number System
Sect 5.1 Number Theory: Prime and Composite Numbers
p. 201 #32, 35, 48, 60, 68, 74, 94
Sect 5.2 The Integers: Order of Operations
p. 211 #81, 84, 85, 88, 92, 95, 98
Sect 5.3 The Rational Numbers
p. 225 #27, 38, 50, 79, 84, 88, 90, 94
Sect 5.4 The Irrational Numbers
p. 234 #19, 25, 33, 45, 50, 51, 58, 65
Sect 5.5 Real Numbers and Their Properties
p. 242 #1, 3, 10, 13, 26, 30, 32, 34
Sect 5.6 Exponents and Scientific Notation
p. 251 #2, 7, 11, 15, 28, 32, 58, 67, 73, 92, 99

Jan 31- Chapter 6 Algebra: Equations and Inequalities
Sect 6.4 Ratio, Proportion, and Variation
p. 308 #8, 10, 14, 20, 22, 24, 25, 26, 32, 36
Sect 6.6 Solving Quadratic Equations
p. 329 #8, 17, 20, 25, 28, 30, 43, 46, 47, 53, 58, 64

Chapter 7 Algebra: Equations and Inequalities
Sect. 7.1 Graphing and Functions
p. 343 #6, 12, 24, 28, 35, 38, 49, 53, 55, 57-62
Sect. 7.2 Linear Functions and Their Graphs
p. 354 #18, 26, 34, 49, 50, 53
Sect. 7.3 Quadratic Functions and Their Graphs
p. 364 #2, 6, 14, 20, 28
Sect. 7.4 Exponential Functions
p. 370 #2, 6, 11, 12
Sect. 7.5 Systems of Linear Equations
p. 382 #2, 5, 8, 20, 24, 28, 32, 40, 49

Feb 7-Unit I Test
Unit II – Measurement and Geometry, Consumer Math

Feb14 - Chapter 8 Consumer Mathematics and Financial Management
Sect 8.1 Percent
p. 413 #6, 16, 34, 38, 42, 48, 52, 54, 60, 62
Sect 8.2 Simple Interest
p. 419 #4, 10, 16, 22, 29
Sect 8.3 Compound Interest
p. 425 #2, 4, 6, 8, 10, 14, 16, 19
Sect 8.4 Installment Buying
p. 435 #1, 2, 11, 12, 15
Sect 8.5 The Cost of Home Ownership
p. 444 #2, 3, 6, 8

Feb 21 - Chapter 9 Measurement
Sect 9.1 Measuring Length; The Metric System
p. 469 #8, 14, 22, 24, 28, 32, 42, 50, 52, 54, 58, 60, 62, 64, 70
Sect 9.2 Measuring Area and Volume
p. 477 #10, 14, 18, 22, 28, 32, 34, 38, 40, 42, 44, 46
Sect 9.3 Measuring Weight and Temperature
p. 485 #4, 8, 14, 16, 24, 32, 38, 44, 46, 48, 50, 55

Feb 28 - Chapter 10 Geometry
Sect 10.1 Points, Lines, Planes, and Angles
p. 497- #4, 8, 14, 16, 22, 28, 31, 32 Bonus 45
Sect 10.2 Triangles
p. 506 #4, 6, 8, 10, 12, 14, 16, 21, 25, 28, 31, 33
Sect 10.3 Polygons, Quadrilaterals, and Perimeter
p. 513 #3, 9, 13, 17, 19, 22, 25, 30, 32, 35, 36

Mar 7 - Sect 10.4 Area and Circumference
p. 523 #2, 6, 8, 13, 16, 19, 24, 28, 31
Sect 10.5 Volume
p. 531 #2, 8, 10, 13, 18, 24, 25, 27, 29
Sect 10.6 Right Triangle Trigonometry
p. 539 #4, 10, 13, 17, 21, 24, 26, 28, 36, 38

Mar 14 - Unit II Test

Mar 19-23 Spring Break

Unit III – Probability and Statistics
Apr 4 - Counting Methods and Probability Theory
Sect 11.1 The Fundamental Counting Principle
p. 564 #1, 4, 8, 13, 15, 17, 22
Sect 11.2 Permutations
p. 571 #1, 5, 7, 13, 20, 23, 30, 35, 36, 41, 45, 51
Sect 11.3 Combinations
p. 578 #2, 4, 12, 16, 21, 26, 28, 33, 37, 39
Sect 11.4 Fundamentals of Probability
Apr 11- Chapter 12 Mathematical Systems
Sect 12.1 Sampling, Frequency Distributions, and Graphs
  p. 641 #1, 3, 10-18, 24, 27
Sect 12.2 Measures of Central Tendency
  p. 655 #4, 14, 19, 26, 29, 39, 49, 50, 58, 69
  Sect 12.3 Measures of Dispersion
    p. 663 #8, 12, 36, 38, 40, 42

Apr 18- Sect 12.4 The Normal Distribution
  p. 680 #3, 12, 24, 27, 34, 38, 40, 49, 57, 60, 70, 77, 83, 94, 98
  Sect 12.5 Scatter Plots, Correlation, and Regression Lines
    p. 691 1, 6, 9-27 all

Apr 25- Unit Test

May 2
Review Day

May 7-10- Final Test