MATH FOR ELEMENTARY TEACHERS 2, MATH 257-P01
3.0 CREDIT HOURS

Semester: Fall 2008
Instructor: Paul E. Morgan
Office Location: Shields 206-B
Office Hours: 11:00 am – 12:00 pm
E-Mail Address: pmorgan@csi.edu
Office Phone: 208-732-6821

COURSE DESCRIPTION: This course includes algebraic reasoning, functions, probability, introduction to statistics, geometry and concepts of measurement.

PRE-REQUISITES: Math 157 with a “C” or higher.

REQUIRED TEXTBOOKS AND EQUIPMENT: The required materials listed below can be purchased as a package through the CSI Bookstore. To order these materials from the CSI Bookstore, call (208) 732-6550 or (208) 732-6551 or 1 (800) 680-0274, ext 6550 toll free in ID and NV. Fax: (208) 736-3015. The ISBN number for this package is 0-536-51068-7. The contents of the package are:
- MyMathLab Access Code

Compass
Protractor
Ruler
You can download different types of graph paper free from the site http://www.mathematicshelpcentral.com/.

COURSE OBJECTIVES:
1. The student will master course content as presented in lecture and assigned homework.
2. The student will apply mathematics to real world situations.
3. The student will develop skills in working with peers to solve mathematical problems.
4. The student will be able to communicate mathematically.

OUTCOMES ASSESSMENT:
1. The students will have achieved the course objectives when they successfully:
   (a) demonstrate their understanding of the course content by completing homework assignments.
   (b) complete individual or group projects that involve real-world situations.
   (c) develop solutions to application problems.
   (d) communicate solutions to problems.

2. When students have successfully completed this course they will be able analyze real-world problems and mathematically structure strategies to determine the solution to the problems.
3. Success will be measured by homework presentations, regular exams and a comprehensive final exam.

4. 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.

ON-LINE COURSE EVALUATION:
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 will be available online during the last two weeks of the course at http://evaluation.csi.edu. 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. Your honest feedback is greatly appreciated.

POLICIES AND PROCEDURES
1. EXAM POLICY: If an emergency arises and you cannot attend an exam, you must contact me via voice mail at 732-6821 or e-mail at pmorgan@csi.edu. Regular exams will be given at the Testing Centers.
   The Twin Falls Center hours:
   Monday thru Thursday: 8:00 am – 9:30 pm
   Friday: 8:00 am – 5:00 pm
   The Blaine County Outreach Center hours:
   Monday, Thursday and Friday: 8:00 am – 4:30 pm
   Tuesday and Wednesday: 8:00 am – 7:00 pm
   The Burley Testing Center hours:
   Monday and Tuesday: 11:00 am – 8:30 pm
   Wednesday and Thursday: 8:00 am – 8:30 pm
   Friday: 8:00 am – 5:00 pm.
   You must have a photo ID and arrive at least one hour before closing times. Chapter exams may include questions from material in chapters that have already been tested. The lowest exam score may be replaced by the score of your Final Exam. The Final Exam will be given in the classroom.

2. CHEATING POLICY: Cheating is unacceptable. Students caught cheating will be assigned 0 points for that exercise or test. A pattern of cheating may be grounds for dismissal from the course.
3. HOMEWORK POLICY: Homework will be assigned during most class sessions and is due at the beginning of the next class session. Each assignment must be on separate pages. I will not accept papers that include two or more assignments on the same page. Approximately 13 assignments will be chosen and collected for grading; late homework will not be accepted. Each page must have your name and the exercise section number on it. Homework should include the work and not just be a list of answers. Credit may not be given if work is not shown.

4. ATTENDANCE POLICY: The instructor will drop a student from the course after the first week if the student has not attended class. The student is then responsible for his or her enrollment. If the student is still enrolled in the course after the “last day to withdraw” date of November 14, 2008, he or she will receive a grade.

5. STUDENT BEHAVIOR STATEMENT: Please refer to the 2008-2009 College of Southern Idaho Catalog under “STUDENT CODE OF CONDUCT & OTHER POLICIES”, on pages 31-33. This can also be found online at www.csi.edu.

6. COMPUTER LITERACY: Please refer to the 2008-2009 College of Southern Idaho Catalog under Computer Literacy in the section, “DEGREE AND CERTIFICATE REQUIREMENTS”, on page 43. This can also be found online at www.csi.edu.

7. PROGRESS REPORTS:
   a. If a student’s progress is unsatisfactory as indicated by lack of attendance, poor test scores, incomplete or poor homework, or classroom behavior, the instructor may institute the PASS (Positive Action for Student Success) Program and alert the Advising Center of the difficulties. A letter may be sent to the student with the intent to provide the student with the resources necessary to be successful in the class. This is the “early alert” system.
   b. If a student continues to have difficulties through the course, the instructor may institute the SMART (Students Making A Right Turn) program which aims at contacting students who may need a “wake up” alert in making academic decisions before it’s too late in the semester. These “wake up” red flags may arise from a broad spectrum of issues: attendance, coursework, classroom behavior, and other factors impeding the student’s success at CSI. The intent of this “late alert” program is to develop positive student/teacher communication in order to map out a course of action for student achievement and success, before the last day to drop.

8. LEARNING ASSISTANCE RESOURCES: Videotapes and/or DVDs for Math 257 are part of the packaged textbook materials sold in the CSI Bookstore. The Twin Falls Campus Math Lab is in the Shields Building, Room 207. A tutor will be available during the mornings and part of the afternoons Monday through Friday. You may request additional tutoring through the Learning Center Coordinator in the Meyerhoeffer Building, Room 202.
9. **STUDENTS WITH DISABILITIES:** Any student with a documented disability may be eligible for related accommodations. Students should contact Candida Mumford at the Student Disability Services Office at (208) 732-6260 or (208) 734-9929 (TDD) or cmumford@csi.edu. Please refer to the 2008-2009 College Of Southern Idaho Catalog under “STUDENT DISABILITY SERVICES”, on page 35. This can also be found online at www.csi.edu.

10. **STUDENT EMAIL:** E-mail is the primary source of written communication with all CSI students. Students automatically get a CSI e-mail account when they register for courses. Messages from instructors and various offices such as Admission and Records, Advising, Financial Aid, Scholarships, etc. will be sent to the students’ CSI accounts (NOT their personal e-mail accounts). **It is the student’s responsibility to check their CSI e-mail accounts regularly.** Failing to do so will result in missing important messages and deadlines. Students can check their CSI e-mail online at http://students.csi.edu. Student e-mail addresses have the following format: username@students.csi.edu. At the beginning of each semester free training sessions will be offered to students who need help using their CSI e-mail accounts.

11. **GRADING**

   4 regular exams worth 100 points each  
   Homework worth 100 points total  
   Team Projects worth 100 points  
   Comprehensive final exam worth 200 points

Grades are computed by adding up total points for all exams and homework and dividing the sum by the total possible number of points. This is converted to percent. Your letter grade is determined according to the following table:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
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<td>80-89</td>
<td>B</td>
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<td>60-69</td>
<td>D</td>
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## COURSE OUTLINE WITH ASSIGNMENTS AND EXAMS

**THIS SYLLABUS IS TENTATIVE AND IS SUBJECT TO CHANGE**

<table>
<thead>
<tr>
<th>DAY</th>
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| Tuesday | August 26  | Course Introduction  
Syllabus  
Team selection |
| Thursday| August 28  | **Chapter Eight**  
Section 8.1, “Algebraic Expressions and Equations”, p. 471  
Problem Set 8.1, pp. 479-483, Problems 1, 4, 5, 9, 11, 14, 15, 17, 22, 23, 28 and 29. |
| Tuesday | September 2| **Chapter Eight**  
Section 8.2, “Functions”, p. 483  
Problem Set 8.2, pp. 489-495, Problems 1, 3, 4, 7, 10, 11, 14, 16, 22, 26, 30, 32 and 36.  
Team Project #1, Cooperative Investigation, p. 489, each team is required to use three differently-shaped vases; no need to swap between teams.  
Due Tuesday, Sept. 9th |
| Thursday| September 4| **Chapter Eight**  
Section 8.3, “Graphing functions in the Cartesian Plane”, p. 495  
Problem Set 8.3, pp. 512-516, Problems 3, 4, 5, 6, 8, 11, 12, 13, 18, 24, 26, 28, 32. |
| Tuesday | September 9| **Chapter Eight**  
Team Project #1 due today  
Review for Exam 1 |
| Tuesday | September 9 | Exam 1, Chapter 8  
Exam 1, Chapter 8 |
| through | Thursday   | Campus Testing Center  
Thursday, September 11 |
| Thursday| September 11| **Chapter Nine**  
Section 9.1, “The Graphical Representation of Data”, p. 525  
Problem Set 9.1, pp. 538-546, Problems 2, 3, 4, 6, 8, 9, 12, 13, 16, 23, 31, 32, 33. |
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<th>DAY</th>
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| Tuesday | September 16 | **Chapter Nine** <br>Section 9.2, “Measures of Central Tendency and Variability”, p. 546  
Problem Set 9.2, pp. 561-565, Problems 1, 2, 3, 4, 7, 9, 11, 19, 32.  
Team Project #2, Chapter 9, Activity 4: What’s the Average?, pp. 158-160 and Chapter, Activity 9: Populations and Samples, p. 171-173 including the Extension of Activities Book  
Due Tuesday, Sept. 23rd |
| Thursday | September 18 | **Chapter Nine** <br>Section 9.3, “Statistical Inference”, p. 565  
Problem Set 9.3, pp. 576-579, Problems 1, 4, 6, 7, 11, 12, 13, 15, 17, 18, 19, 20, 33. |
| Tuesday | September 23 | **Chapter Ten** <br>Section 10.1, “Empirical Probability”, p. 591  
Problem Set 10.1, pp. 601-605, Problems 2, 5, 6, 7, 10, 12, 13, 18, 23, 30, 33, 34.  
Team Project #2 due today |
| Thursday | September 25 | **Chapter Ten** <br>Section 10.2, “Principles of Counting”, p. 605  
Problem Set 10.2, pp. 618-621, Problems 2, 3, 4, 6, 9, 11, 13, 14, 15, 17, 18, 32, 41.  
Due Thursday, Oct 2nd |
| Tuesday | September 30 | **Chapter Ten** <br>Section 10.3, “Theoretical Probability”, p. 621  
Problem Set 10.3, pp. 638-642, Problems 1, 2, 5, 6, 9, 12, 14, 15, 17, 18, 22, 27, 36. |
| Thursday | October 2   | **Chapter Ten** <br>Team Project #3 due today  
Review for Exam 2 |
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<th>DAY</th>
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<tbody>
<tr>
<td>Thursday</td>
<td>October 2</td>
<td>Exam 2, Chapters 9 &amp; 10</td>
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<td>Monday</td>
<td>October 6</td>
<td>Campus Testing Center</td>
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<td>Tuesday</td>
<td>October 7</td>
<td><strong>Chapter Eleven</strong></td>
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<td>Section 11.1, “Figures in the Plane”, p. 651</td>
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<td>Problem Set 11.1, pp. 667-673, Problems 4, 5, 7, 8, 9, 13, 14, 15, 17, 18, 20, 29, 33.</td>
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<td>Thursday</td>
<td>October 9</td>
<td><strong>Chapter Eleven</strong></td>
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<td>Section 11.2, “Curves and Polygons in the Plane”, p. 674</td>
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<td>Problem Set 11.2, pp. 688-695, Problems 1, 3, 4, 6, 7, 8, 11, 13, 15, 20, 31, 32.</td>
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<td>Tuesday</td>
<td>October 14</td>
<td><strong>Chapter Eleven</strong></td>
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<td>Section 11.3, “Figures in Space”, p. 695</td>
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<td>Problem Set 11.3, pp. 709-715, Problems 1, 3, 6, 9, 11, 13, 16, 33, 34.</td>
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<td>Team Project #4, Chapter 11, Activity 8: Spatial Visualization, pp. 216-218, and Chapter 11, Activity 9: A View from the Top, pp. 219-220 of Activities Book Due Tuesday, Oct. 21st</td>
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<td>Thursday</td>
<td>October 16</td>
<td><strong>Chapter Eleven</strong></td>
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<td>Section 11.4, “Networks”, p. 715</td>
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<td>Problem Set 11.4, pp. 722-727, Problems 2, 3, 4, 6, 7, 8, 9, 10, 13, 25, 26.</td>
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<td>Tuesday</td>
<td>October 21</td>
<td><strong>Chapter Twelve</strong></td>
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<td>Problem Set 12.1, pp. 752-756, Problems 1, 3, 5, 6, 7, 10, 11, 12, 15, 18, 19, 21, 31.</td>
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<td>Team Project #4 due today</td>
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| Thursday | October 23 | **Chapter Twelve**  
Section 12.2, “Area and Perimeter”, p. 756  
Problem Set 12.2, pp. 769-777, Problems 1, 6, 7, 8, 9, 10, 11, 12, 13, 17, 18, 20, 31.  
Team Project #5, Cooperative Investigation, pp. 778-779  
Due Thursday, Oct. 30th |
| Tuesday  | October 28 | **Chapter Twelve**  
Section 12.3, “The Pythagorean Theorem”, p. 779  
Problem Set 12.3, pp. 783-789, Problems 1, 2, 3, 4, 5, 8, 10, 12, 13, 19, 21, 28, 30. |
| Thursday | October 30 | **Chapter Twelve**  
Section 12.4, “Surface Area and Volume”, p. 789  
Problem Set 12.4, pp. 803-809, Problems 1, 2, 3, 4, 5, 6, 8, 10, 12, 13, 16, 38, 40.  
**Team Project #5 due today** |
| Tuesday  | November 4 | Review for Exam 3 |
| Tuesday  | November 4 | Exam 3, Chapters 11 & 12 |
| Thursday | November 6 | Campus Testing Center |
| Thursday | November 6 | **Chapter Thirteen**  
Section 13.1, “Rigid Motions and Similarity Transformations”, p. 820  
Problem Set 13.1, pp. 838-844, Problems 2, 3, 4, 5, 6, 8, 9, 10, 12, 16, 17, 25, 43. |
| Tuesday  | November 11| Veteran’s Day Holiday, No Class |
| Thursday | November 13| **Chapter Thirteen**  
Section 13.2, “Patterns and Symmetries”, p. 845  
Problem Set 13.2, pp. 853-859, Problems 1, 2, 4, 5, 6, 7, 11, 12, 16, 17, 19, 24, 41.  
Team Project #6, Chapter 13, Activity 11: Draw It, p. 278 of *Activities* Book  
Due Thursday, Nov 20th |
### COURSE OUTLINE WITH ASSIGNMENTS AND EXAMS

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<tr>
<td>Tuesday</td>
<td>November 18</td>
<td><strong>Chapter Thirteen</strong>&lt;br&gt;Section 13.3, “Tilings and Escher-Like Designs”, p. 860&lt;br&gt;Team Project #7, Cooperative Investigation, p. 869 of the textbook including the Extension&lt;br&gt;Due Thursday, Dec. 4th</td>
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<td>Thursday</td>
<td>November 20</td>
<td><strong>Chapter Fourteen</strong>&lt;br&gt;Section 14.1, “Congruent Triangles”, p. 885&lt;br&gt;Problem Set 14.1, pp. 899-905, Problems 2, 4, 5, 6, 7, 9, 12, 14, 22, 35.&lt;br&gt;&lt;br&gt;<em>Team Project #6 due today</em></td>
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<td>Tuesday</td>
<td>November 25</td>
<td><strong>Chapter Fourteen</strong>&lt;br&gt;Section 14.2, “Constructing Geometric Figures”, p. 905&lt;br&gt;Problem Set 14.2, pp. 918-925, Problems 4, 6, 9, 10a, 13, 15, 24.</td>
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<td>Thursday</td>
<td>November 27</td>
<td>Thanksgiving Holiday, No Class</td>
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<tr>
<td>Tuesday</td>
<td>December 2</td>
<td><strong>Chapter Fourteen</strong>&lt;br&gt;Section 14.3, “Similar Triangles”, p. 925&lt;br&gt;Problem Set 14.3, pp. 934-939, Problems 1, 2, 3, 4, 7, 8, 10, 15, 23, 25.</td>
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<td>Thursday</td>
<td>December 4</td>
<td>Review for Exam 4</td>
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<td><strong>Team Project #7 due today</strong></td>
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<td>Thursday through</td>
<td>December 4</td>
<td><strong>Exam 4, Chapters 13 &amp; 14</strong></td>
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<td>Monday</td>
<td>December 8</td>
<td><strong>Campus Testing Center</strong></td>
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<td>Tuesday</td>
<td>December 9</td>
<td>Review for Final Exam</td>
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<tr>
<td>Thursday</td>
<td>December 11</td>
<td>Review for Final Exam</td>
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**FINAL EXAM:** Classroom<br>Wednesday, December 17th<br>4:00 – 6:00 pm