Fundamentals of Mathematics II
MATH. 1351. 63400 and 93403
SPRING 2016
1/20/16 – 5/12/16

Professor: T. Slider
Email: tslider@dcccd.edu
Office Phone Number: 214-860-3650
Office Number: W211
Office Hours: TR 10:00am – 11:00am and 12:30pm – 2:00pm
Meeting Days & Time: ONLINE
Room Number: ONLINE
Credit Hours: 3 Semester Hours

Division: Science, Technology, Engineering, & Mathematics (STEM)
Office Hours: M – F 8:00 am – 5:00 pm
Office Phone: 214-860-8760
Office Number: W147

Course Description: Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek elementary and/or middle grade teacher certification.

Course Pre-requisites: MATH 1350

Course Materials/Supplies Needed
A PROBLEM SOLVING APPROACH TO MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS, BUNDLED WITH MYMATHLAB ACCESS CODE (COURSECOMPASS) by Billstein, Libeskind, & Lott, 12th edition (ISBN#978-0321990594)
CALCULATOR

Student Learning Outcomes
After successful completion of this course the student should be able to:
1. Understand the foundations for learning mathematics and its relationship to the NCTM Standards.
2. Understand the fundamental relationship between mathematics and problem solving.
3. Develop the skills necessary to teach proportional reasoning and percent.
4. Understand the concepts from probability and statistics that occur in grades 4-8.
5. Understand the relationship between geometric and numerical representations.
6. Develop the skills necessary to teach basic geometric concepts.
Course Outline:
Chapter 9  Probability
Chapter 10  Data Analysis/Statistics: An Introduction
Chapter 11  Introductory Geometry
Chapter 13  Congruence and Similarity with Transformations
Chapter 14  Area, Pythagorean Theorem, and Volume

Evaluation Procedures:
In support of the MVC Quality Enhancement Plan and its goal for improving your writing skills, this course includes one or more written assignments addressing subjects specifically related to your course and its content. During the development of your paper(s), you may receive assistance from one or a combination of the following sources:
1) instructor feedback on early drafts,
2) guided peer reviews of your compositions at various stages of development, and/or
3) guidance from a Writing Specialist in the MVC Academic Center for Writing (W114).
Additionally, you may receive feedback through use of the MVC Writing Rubric that will indicate both the strengths of your writing as well as areas that need attention.
The evaluation of your writing exercise(s) represents an important component of your final course grade.

Final grades will be computed as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Tests</td>
<td>50%</td>
</tr>
<tr>
<td>MML Homework</td>
<td>20%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

Your course grades are computed using a weighted average. This means that some categories weigh more than others. Since the tests are worth 50%, they have more weight in the calculation of your course grade.

Let's look at an example:
Homework counts 20%, teaching assignments count 30%, and tests count 50%. John Doe has a homework average of 92, a teaching assignment average of 70, and a test average of 81.

John Doe's overall grade = \((0.2)(92) + (0.3)(70) + (0.5)(81) = 18.4 + 21 + 40.5 = 79.9\)

John Doe has an average of 79.9% which would be rounded to an 80%.

For this course, we will be using eCampus for information and discussion board assignments and using MyMathLab (www.mymathlab.com) for math assignments and tests. Refer to the MyMathLab Student Registration Handout under the MyMathLab button in eCampus to learn how to enroll in MML. Because the book has changed to a new edition, you will have to purchase MML again if you are continuing from my MATH 1350 course.

The MML homework and tests will be completed in MyMathLab. The teaching assignments will be completed in eCampus.
When you enroll in MyMathLab, you are required to use the first and last name that the MVC/DTC Registrar has on file for you. If the name on the MyMathLab roster does not match the name on the official MVC/DTC course roster, then you may receive a failing grade until the matter is resolved.

If you begin in MyMathLab with the temporary access, you are to pay on that account. Do not open a new account when you purchase MyMathLab. Follow the instructions in the reminder emails that MyMathLab/ Pearson sends to you. Your grades will not transfer automatically or be transferred by the instructor from one account to another. If your MyMathLab account is inactive at the time course grades are to be posted, you will receive a failing grade until the matter is resolved.

**Readings, Videos, and PowerPoint Lectures:**
You are to read in the Multimedia Textbook, watch video presentations, and view PowerPoint lectures for the assigned sections. These may be accessed in MyMathLab under the button entitled "eBOOK".

**Tests** – All tests will be taken online in MyMathLab. The tests can be accessed under the button entitled “TESTS & FINAL EXAM”. Each test will be timed and you will be given approximately 80 minutes to complete each test. Each test must be completed in one sitting. You cannot work in a test and go back to it at a later time to finish it. If the system boots you out of a test, then you must email me within two minutes of getting booted out. If you do not email me within that two minutes, your test will not be reset and will be submitted as is. It is imperative there is no delay in contacting me.

The system is set so that if you attempt to open another assignment, etc. your test session will end. Do not open any other assignment, etc. when you are testing. Access will not be given if your test closes because you opened another assignment. Test questions will be taken from the readings, video presentations, and PowerPoint lectures.

Each test has to be taken in the lockdown browser which you will download from MyMathLab. Please access the following link for more information.

http://help.pearsoncmg.com/xl/student/sa/student_help_Left.htm#CSHID=take_locked_down_tests.htm|StartTopic=Content%2Ftake_locked_down_tests.htm|SkinName=stu-frameset

A reliable computer with internet access is required. Because you will take tests in the lockdown browser, any difficulties with the lockdown browser must be worked out before the first test. Issues with the lockdown browser will not be cause for an extension on the quizzes or tests. A sample test has been posted in MML so that you can use it to test your computer’s status with the lockdown browser. You will need to check your lockdown browser access before each test. If you cannot get the lockdown browser to work on your personal computer, then you will need to find an alternate computer to take the quizzes and tests.

If your computer crashes, etc. during a test which prevents you from completing the test, then you must provide me documentation proving the issue. Without proper documentation, the test will not be reset for you to complete.

Each test must be completed in one sitting. You cannot work in a test and go back to it at a later time to finish it. If the system boots you out of a test, then you must email me within two minutes of getting booted out. If you do not email me within that two minutes, your test will not be reset and will be submitted as is. It is imperative there is no delay in contacting me.

**MyMathLab Homework:**
Under the “HOMEWORK” button in MyMathLab will be the assignments in which you will practice the mathematics concepts introduced in each chapter. The due dates for these assignments are listed beside each assignment. The due dates are also listed in eCampus under the “ASSIGNMENTS” button.

**Writing Assignments** - The writing assignments make up 30% of your course grade. They consist of the Introduction, Brainstorming, and the Teaching Assignment. These assignments are not equally weighted portions of the 30%. The writing assignments are posted in eCampus along with their instructions. Each writing assignment will be graded based on content, grammar, and mechanics.

**Teaching Assignments** – The teaching assignments are in the category for Writing Assignments. Under the “ASSIGNMENTS” button in eCampus, the Teaching Assignments will be posted. The teaching assignments will be an opportunity for you to practice teaching mathematics. You have been assigned a math problem to teach. Write what you would say to elementary or middle school students as you are teaching them how to solve the problem. The problem-solving steps should be a part of your teaching. You may think of these assignments as scripts or process essays.

Include in your teaching a visual, such as a table, chart, diagram, concept map, or drawing, which would help students to understand the concept you are teaching. If the problem asks the students to find how many pigs are in the barn, then do not include pictures of pigs to count for your visual. The purpose of the visual is to help students understand how to do the math calculations or find a pattern in the numbers to arrive upon a solution.

As a teacher, your goal is to explain a concept so your students will understand, retain, and master it. Include in your teaching write-up everything you feel is necessary to achieve that goal.

The write-up must be free of spelling, punctuation, and structural errors. This teaching assignment will be submitted in eCampus and must be typed, double-spaced, Times New Roman font, size 12, 1-inch margins, and needs to be at least 2 pages in length. Please refer to the grading rubric below for more information. Each draft of a teaching assignment is worth 28 points. The brainstorming step is worth 3 points.

Include header of your first and last name. Include a footer of the page numbers.

Save the file as a Word document with the title being your first initial last name- MATH 1351-Teaching Assignment. For example: TSlider-Math 1351-TeachingAssignment

**Teaching Assignment Rubric**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>4 points</th>
<th>3 points</th>
<th>2 points</th>
<th>1 point</th>
<th>0 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation</td>
<td>Explanation is detailed and clear.</td>
<td>Explanation is clear.</td>
<td>Explanation is a little difficult to understand, but includes critical components.</td>
<td>Explanation is difficult to understand and is missing several components.</td>
<td>Explanation is not included.</td>
</tr>
<tr>
<td>Strategy/Procedures</td>
<td>Typically, uses an efficient and effective strategy to solve the problem(s).</td>
<td>Typically, uses an effective strategy to solve the problem(s).</td>
<td>Sometimes uses an effective strategy to solve problems, but does not do it consistently.</td>
<td>Rarely uses an effective strategy to solve problems.</td>
<td>Strategy used was not evident.</td>
</tr>
<tr>
<td>Mathematical Errors</td>
<td>100% of the steps and solutions have no mathematical errors.</td>
<td>Almost all (80-89%) of the steps and solutions have no mathematical errors.</td>
<td>Most (70-79%) of the steps and solutions have no mathematical errors.</td>
<td>60 – 69% of the steps and solutions have no mathematical errors.</td>
<td>50% or less of the steps and solutions have no mathematical errors.</td>
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<tr>
<td>Neatness and Organization</td>
<td>The work is presented in a neat, clear, organized fashion that is easy to read.</td>
<td>The work is presented in a neat and organized fashion that is usually easy to read.</td>
<td>The work is presented in an organized fashion but may be hard to read at times.</td>
<td>The work appears sloppy and unorganized. It is hard to know what information goes together.</td>
<td>The work cannot be understood.</td>
</tr>
<tr>
<td>Visual</td>
<td>Diagrams, tables, charts, and/or sketches are clear and greatly add to the reader's understanding of the procedure(s).</td>
<td>Diagrams, tables, charts, and/or sketches are clear and easy to understand.</td>
<td>Diagrams, tables, charts, and/or sketches are somewhat difficult to understand.</td>
<td>Diagrams, tables, charts, and/or sketches are difficult to understand.</td>
<td>Diagrams, tables, charts, and/or sketches are not used.</td>
</tr>
<tr>
<td>Grammar and Mechanics</td>
<td>There are no errors.</td>
<td>There are 1 – 2 errors.</td>
<td>There are 3 – 4 errors.</td>
<td>There are 5 or more errors.</td>
<td></td>
</tr>
<tr>
<td>Presentation (font, size, margins, etc.)</td>
<td>There are no errors.</td>
<td>There are 1 – 2 errors.</td>
<td>There are 3 – 4 errors.</td>
<td>There are 5 – 6 errors.</td>
<td>There are 7 or more errors.</td>
</tr>
</tbody>
</table>

**Gradebook:**
Please go to the MyMathLab Gradebook for your average in the course.

**Netiquette:**
Please refer to the information under the “Netiquette” button in eCampus to learn the rules of etiquette for this course.

**Time Zone:**
This course will be facilitated in Central Standard Time.

**Responsibility of Online Learner:**
As a student in an online course, it is your responsibility to locate a computer with reliable internet access. Computer and internet issues/problems not associated with the eCampus and/or My Lab and Mastering (MyMathLab) websites’ technical issues or downtime will not be considered exceptions to the late work and makeup exam policies. It is also your responsibility to have the necessary course materials to complete the assignments. You will not receive extensions on assignments or tests due to financial issues, not receiving MyMathLab by the start of class, or personal computer issues. Please plan ahead and do not wait until the last minute to complete assignments or tests.
Instructor Attendance Policy:
Students are expected to log in to the course regularly. For an online course, regularly is defined as at least five times per week. You must be a highly motivated student who can be disciplined to devote time to a distance learning program of study.

Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.

Grading Scale:
- 100% - 90%    A
- 89% - 80%    B
- 79% - 70%    C
- 69% - 60%    D
- 59% - below    F

Late Work Policy:
Late work is not allowed. You are more than welcome to submit an assignment early. You are not allowed to submit an assignment late. Extensions will not be granted.

Makeup Exam Policy:
Makeup exams are not allowed. You are more than welcome to do an exam early. You are not allowed to do an exam late. Extensions will not be granted.

Certification Procedures: (For Online Courses)
To be certified as attending this online course, you must complete the Introduction Discussion Board assignment in eCampus by the deadline posted.

The withdraw date for this class is April 14, 2014.

Classroom Etiquette:
Any online or email behavior or language deemed inappropriate by the instructor will not be tolerated. Any student who is disruptive or offensive will be required to discuss his or her behavior with the instructor before continuing with the course. Please familiarize yourself with and abide by the Student Code of Conduct found online at https://www1.dcccd.edu/cat0406/ss/code.cfm.

Academic Dishonesty:
Students that caught plagiarizing an assignment will be subject to an “F” in the course and possible expulsion from the college.

Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog. More information is available at https://www1.dcccd.edu/catalog/ss/code.cfm.

Institution Policies: Please visit http://www.mountainviewcollege.edu/Academics/Documents/Institutional%20Policies.pdf for a
complete list of institutional policies (Stop Before You Drop; Withdrawal Policy; Repeating a Course; Financial Aid; Academic Dishonesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan).

**Additional Information:**
The instructor reserves the right to alter the syllabus.

**Course Calendar**
To Be Determined