Course Description: Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real number systems 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 1314 or the equivalent.

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

Core Statement:
MATH 1350 is a Tier 1 course in the Quantitative Reasoning learning category. “Knowledge and skills that are important to your success in other college courses will be introduced and reinforced in Tier 1. The Quantitative Reasoning category promotes the application of mathematics to increase your ability to solve “real-world” problem. When you are quantitatively literate, you can use logic and critical thinking in new ways.” - Catalog of the Colleges of DCCCD

Core Objectives:
MATH 1350 develops the following Core Objectives:
Critical Thinking – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
**Communication** – to include effective development, interpretation and expression of ideas through written and visual communication.

**Empirical and Quantitative Skills** – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

**Core Objective Development Statement:**
MATH 1350 develops **Critical Thinking, Communication, and Empirical and Quantitative Skills** by requiring students to solve and analyze applications to at least one of the following: sets, functions, numeration systems, number theory, and the real number system.

**Course Outline:**
- Chapter 1: An Introduction to Problem Solving
- Chapter 2: Introduction to Logic and Sets
- Chapter 3: Numeration Systems and Whole Numbers Operations
- Chapter 4: Number Theory
- Chapter 5: Integers
- Chapter 6: Rational Numbers and Proportional Reasoning
- Chapter 7: Rational Numbers as Decimals and Percent
- Chapter 8: Real Numbers and Algebraic Thinking

**Evaluation Procedures:**
Final grades will be computed as follows:
- Tests 50%
- Quizzes 10%
- Writing Assignments 30% (The writing assignments are not weighted equally.)
- MML Homework 10%

**TOTAL 100%**

Your grade is based on MML homework, review quizzes, tests, and teaching assignments. The MML homework, review quizzes, and tests will be completed in MyMathLab. The teaching assignments will be completed in eCampus. **Refer to the MyMathLab Student Registration Handout under the MyMathLab button in eCampus to learn how to enroll in MML.**

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 your name on the MyMathLab course roster is not the same as on the MVC/DTC course roster, then the posting of your grade will be delayed until the matter is resolved.

If you have enrolled in MyMathLab with 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 has sent to you. Your grades will not transfer automatically or be transferred by me from one account to another.

**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”.

**Review Quizzes** – There is a review quiz before each chapter test to help you prepare. Every quiz has to be taken in the lockdown browser and they are not timed. You get two chances to take each quiz and the MyMathLab system will automatically include your highest quiz score when calculating your course grade.
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 1350-Teaching Assignment. For example: TSlider-Math 1350-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>
</tr>
<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>
</tbody>
</table>
Visual

<table>
<thead>
<tr>
<th>Visual Description</th>
<th>Diagrams, tables, charts, and/or sketches are clear and greatly add to the reader's understanding of the procedure(s).</th>
<th>Diagrams, tables, charts, and/or sketches are clear and easy to understand.</th>
<th>Diagrams, tables, charts, and/or sketches are somewhat difficult to understand.</th>
<th>Diagrams, tables, charts, and/or sketches are difficult to understand.</th>
<th>Diagrams, tables, charts, and/or sketches are not used.</th>
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Grammar and Mechanics

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<tr>
<th>Error Count</th>
<th>Diagrams, tables, charts, and/or sketches are clear and easy to understand.</th>
<th>Diagrams, tables, charts, and/or sketches are somewhat difficult to understand.</th>
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<tbody>
<tr>
<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>
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<td></td>
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<tr>
<td>There are 7 or more errors.</td>
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</table>

Presentation (font, size, margins, etc.)

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Final Exam – There will be a comprehensive final exam given in MyMathLab that must be completed by 10:00 p.m. Central Standard Time, Thursday, March 10, 2016.

Gradebook - To access your grades throughout the semester, please view the gradebook in MyMathLab. The MyMathLab gradebook will have the most current average for you. In the gradebook you can also review assignments you have completed. You cannot complete assignments by accessing them via the MyMathLab gradebook.

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 three times per week. You must be a highly motivated student who can be disciplined to devote time to a distance learning program of study.

**To be certified as attending this online course, you must complete the Introduction Discussion Board assignment in eCampus by the deadline posted.**
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:**

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 February 25, 2016.**

**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](https://www1.dcccd.edu/catalog/ss/code.cfm).

**Institution Policies:** Please visit [http://www.mountainviewcollege.edu/Academics/Documents/Institutional%20Policies.pdf](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 change the syllabus.

**Course Calendar**

To Be Determined