MTH 0900 – PRE-ALGEBRA SAMPLE SYLLABUS Name _____

MATH LEARNING CENTER PHONE: 224-0497 Email: mlc@ivcc.edu

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Catalog Description: This course is designed for those students who would like a review of arithmetic before beginning the Basic Algebra course or for those who would like to improve their arithmetic skills and be introduced to beginning algebra topics. Arithmetic topics to be studied include numeration, whole numbers, fractions, decimal numerals, percent, exponents, ratio and proportion. Algebra topics to be studied include signed numbers, order of operations, simplifying algebraic expressions, evaluating expressions and solving simple equations. This course is offered in either a lab or lecture format. No college credit is awarded for this course.

Expected Learning Outcomes:

Upon completion of the course, the student will be able to:

1. demonstrate a working knowledge of whole numbers
2. demonstrate a working knowledge of factions
3. demonstrate a working knowledge of decimals
4. demonstrate a working knowledge of ratios and proportions
5. demonstrate a working knowledge of percents
6. demonstrate a working knowledge of basic equation solving

Required course materials:

Acess code: ALEKS by McGraw Hill

Other materials: 5-subject notebook OR a 3-ring binder with loose-leaf paper; a two-line scientific calculator such as a Texas Instruments TI-30Xiis; pencils

Course Materials: pencil, spiral bound notebook, and a scientific calculator such as TI-30X IIS (graphing calculators are not allowed).

7 1	Tests Final Exam	60%
3	Knowledge Checks	17.5%
3	Pie Progress checks	5%
8	Objectives	17.4%
1	Progress/Attendance	10 bonus points (0.1%)

Course Design: Completion of Pre-Algebra requires completion and mastery of **all** course requirements.

GRADING SCALE: Grades are computed as follows: 91 - 100% **A;** 82 - 90.9 **B;** 74.5 -81.9 **C;** 64.5 - 74.4 **D**

About the MLC: No formal classroom instruction is conducted in the MLC. You work individually and get spot help as needed from the teachers and student assistants who are on duty. You have an assignment sheet that contains a detailed schedule of daily assignments and a test schedule.

- Remember, you are responsible for your own work. If you are caught cheating, you will receive a grade of 0 for that assignment and an academic dishonesty report will be submitted to Student Affairs to go into your file. **Cell phones must be put away when you are in possession of a test.**

ATTENDANCE (GOOD ATTENDANCE AND STAYING ON SCHEDULE ARE YOUR KEYS TO SUCCESS!)

1. Attendance is required at your scheduled time for the full amount of time. Attendance and progress are evaluated regularly. You must use your student ID to check in and check out at the "Attendance Station". If absence is unavoidable, it is the student's responsibility to explain any absences to the instructor and arrange to complete any work. It is expected that students will arrange their schedules and transportation needs so they can be in class. Excessive absences, no matter what the cause, are a primary cause of failure in the MLC. Please call or email us if you are absent.

2. **March 5** is midterm, and the last day for student withdrawal is **April 8.** We will not withdraw any student unless we are asked to do so. If you wish to withdraw from your course, you must do so yourself in Webadvisor or ask us to submit this for you. Students who are significantly behind in their assignments AND have attended fewer than 80% of their assigned class time may want to consider withdrawing from the class. Please speak to an instructor if you need advice at any point. **NOTE WELL! Students who do not withdraw and who do not complete the course will receive a grade of F.**

Withdrawal from a course can affect financial aid; students who receive financial aid should see an advisor in the Financial Aid Office before withdrawing from a course.

STUDY HINTS

1. a) **Work the assignments in the order they are listed on your assignment sheet, checking off assignments as you complete them.**
   b) Work through each step of every example. Ask for help when you get stuck.
   c) Be sure to learn the meanings of vocabulary words and formulas.
   d) Study the assigned material carefully.

2. **Do not expect to do all of your studying during regular class time**. Much of your class time is needed for asking questions, getting help and taking quizzes and tests; therefore, it's vital that you dedicate time outside of class to work on math so that you can stay on schedule. If you get behind schedule you will need to commit extra time at home or in class in order to catch up.

3. Peer tutoring is available if needed. If interested, see an instructor. You may also contact Angela Dunlap in D-201 or call her at (815)224-0479. Assistance in peer tutoring needs to be scheduled outside your regular class time.

4. You ***may*** be eligible for academic accommodations if you have a documented physical, psychiatric (anxiety, depression, bipolar disorder, AD/HD, post-traumatic stress, or others) or cognitive disability such as a learning disability. For more information, contact Tina Hardy at (tina_hardy@ivcc.edu, 224-0284) or stop by office C-211.

5. Please be considerate of other students and **silence your cell phone.**

ALEKS

ALEKS is a web-based assessment and learning system that is compatible with current Windows and Macintosh platforms. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course and then instructs the student on the topics he/she is most ready to learn. As a student works through the course, ALEKS periodically reassesses the student to ensure that topics learned are also retained. ALEKS also provides the advantages of one-on-one instruction, 24/7, from virtually any Web-based computer.

How does ALEKS work?

ALEKS avoids multiple-choice questions and instead uses flexible and easy to use answer input tools that mimic what would be done with paper and pencil. When you first log on to ALEKS, a brief tutorial will show you how to use these ALEKS answer input tools. You will then begin the ***initial Knowledge Check*** assessment which is typically 25-30 questions. In this Knowledge Check, ALEKS will assess your current course knowledge in the 8 Goal Topics covered in this course. ALEKS chooses each question on the basis of your answers to all the previous questions. Each student, and therefore each set of assessment questions, is unique. It is impossible to predict the questions that will be asked.

By the time you have completed the assessment, ALEKS has developed a precise picture of your knowledge of the course objectives, knowing which topics you have mastered and which topics you have not. This is represented by a multicolor pie chart.

The ***pie chart*** is also your entry into the ***Learning Mode***. In the ***Learning Mode***, you are offered a choice of topics that you are ready to learn (in other words, you have the prerequisite knowledge to successfully learn these topics). When you choose a topic to learn, ALEKS offers you practice problems that teach the topic. These problems have enough variability that you can only get them consistently correct if you understand the core principle defining the topic. If you don't understand a particular problem, you can always access a complete explanation or refer to your textbook for examples and explanations. The MLC staff is available for assistance as well. Once you can consistently get the problems for a given topic correct, ALEKS considers the topic "learned" and you may choose another topic to work on. As you learn new topics, ALEKS updates its map of your knowledge. You can observe the most current summary of what you knows and what you are ready to learn.

To ensure that topics learned are retained in long term memory, ALEKS will require additional, ***periodic Knowledge Checks***. The results of these ***periodic Knowledge Checks*** will affect your pie completion. We have also included ***scheduled Knowledge Checks*** which also affect your pie completion and will count as a grade in your overall course average. ALL Knowledge Checks are explained in more detail below.

Knowledge Checks

There will be three types of Knowledge Checks (KCs) throughout your course. They are:

1. **Initial Knowledge Check**: This is the assessment that creates your initial pie, outlining what you already know in the 8 Goal Topics and what you are ready to learn.

2. **Periodic Knowledge Checks**: These are generated by ALEKS after you complete 20 topics OR 5 hours of working in the program. These are not included in your course grade; however, they do affect your pie progress, either adding or removing topics based on what you master in the assessment.

3. **Scheduled Knowledge Checks**: These are instructor-created and have due dates. The due dates are listed on your assignment sheet. These KCs will only assess the topics in which you've been working up to that point and will be individualized for each student. Your goal is 80% mastery on these KCs. There are no retakes and these grades will figure into your overall course average. These KCs are password-protected and must be done in class.

You are encouraged to show your work on the scheduled KCs neatly and submit them to an instructor in case there is any question regarding your grade.

Objectives

Objectives are the overall focus of a unit. Your ALEKS pie is made up of the topics within each unit or objective. Mastery of the topics within an objective fills in your ALEKS pie pieces.

- **Pay close attention to the given due dates.** There is a start date and an end date for when you will be working on each objective/unit. You may start working in a unit ahead of schedule but you may not start it AFTER the end date.
- Completion of the objectives will be included in your course grade. Any incomplete objectives will have a negative effect on your overall grade.
- Objectives completed after the due date will NOT figure into your overall grade but are required to access objectives for future units.
- **Make time to work at home. A minimum of 2-4 hours per week will be necessary to meet the due dates.**

Pie Progress

Pie progress is achieved by mastering individual topics from each objective in learning mode and continuing to demonstrate mastery of these topics in your Knowledge Checks. Your Pie Progress will be evaluated by your instructor three times during the semester and will be included in your overall grade.

- February 22: You should have a minimum of 65 out of 297 topics mastered.
- April 12: You should have a minimum of 209 out of 297 topics mastered.
- May 3: Ideally, you should have mastered all 297 topics. However, in order to receive full credit for this Pie Progress Check, we will looking for a minimum of 282 out of the 297 topics.

For example, if, on September 28, you have 65 or more topics mastered, you will earn a grade of 100% for this Pie Progress Assessment. If you only have 42 topics mastered on this date, you'll earn a grade of 64.6% since that is the percentage of topics learned at that point.

Tests

Tests are completed in ALEKS. Tests must be done without the benefit of book or notes AND should be completed in one sitting. You may use scratch paper, a pencil, and a calculator.

You must complete at least 90% of your objectives for a Goal Topic in order to take the Unit Test.

Cell phones must be put away when you are completing a test. Remember to ask questions prior to the testing moment! During a test, you may ask no more than 3 content questions!

- When completed, turn in your work (numbered and shown neatly on your scratch paper) to an instructor.
- The minimum required score on a test is 75%. If you score lower than a 75%, you may be given appropriate review work and will be required to retake the test.
- The first time you take a test the maximum score is 100; the second time it is 91, the third time it is 82 and all subsequent times it is 75. **If you need to retake a test, you need to plan on coming in extra time to do so.**
- The final exam is comprehensive and may be taken only once. Be sure to allow 2 hours for the test.

MTH 0900 – PROPOSED SCHEDULE

DUE DATE	ASSIGNMENT
Week 1	☐ Register in ALEKS. Go to www.aleks.com Class Code: **VCPTH-KTJAF** Username_____ Password_____ ☐ Complete the initial Knowledge Check. This should be done before coming to class on Monday.
Week 2	☐ Begin working in the ***Whole Numbers*** area of ALEKS. This is the bright yellow pie piece.
Week 3	☐ **Test 1** on Whole number is **due Wednesday, January 23rd.** Show gradebook to an instructor (initials) _____, in order to take TEST 1. **Number all of your problems and show your work neatly**. ☐ Begin working in the ***Integers*** area of ALEKS. This is the yellow-orange pie piece.

Week 4	☐ Continue working in the ***Integers*** area of ALEKS.
Week 5	☐ **Test 2** on Integers is **due Monday, February 4th.** Show gradebook to an instructor (initials) _____, in order to take TEST 2. **Number all of your problems and show your work neatly**. ☐ Begin working in the ***Algebraic Expressions & Equations*** area of ALEKS. This is the orange pie piece.
Week 6	☐ Continue working in the **Algebraic Expressions & Equations** area of ALEKS. This is the orange pie piece. ☐ **Scheduled Knowledge Check 1 due Wednesday, February 13th.**
Week 7	☐ **Test 3** on Algebraic Expressions & Equations is **due Wednesday, February 20th.** Show gradebook to an instructor (initials) _____, in order to take TEST 3. **Number all of your problems and show your work neatly**. ☐ Begin working in the ***Fractions*** area of ALEKS. This is the red-orange pie piece. ☐ **PIE PROGRESS CHECK #1 grade on Friday, February 22nd:** You should have a minimum of 65 topics mastered by midnight on September 28.

Please conference with an instructor concerning your progress on or before midterm.

(You will receive 10 bonus points if you initiate a conference on or before the due date.)

_____ On schedule _____ Attendance Bonus Points _____

_____ Behind--must work on material outside of class.

Goals/notes:_____

_____

_____

By signing below, I recognize that I must put in extra time (either in the MLC, in Peer Tutoring, and/or at home) on the material in order to meet these goals. I also understand that not meeting the goals set here puts me at risk to be withdrawn.

Student _____ Instructor _____ Date_____

Week 8	☐ Continue working in the ***Fractions*** area of ALEKS. This is the red-orange pie piece. ☐ Conference for extra credit due Friday, March 1st.
Week 9	☐ Continue working in the ***Fractions*** area of ALEKS. This is the red-orange pie piece. ☐ **Scheduled Knowledge Check 2 due Friday, October 12th.**
Week 10	☐ Continue working in the ***Fractions*** area of ALEKS. This is the red-orange pie piece.
Week 11	☐ **Test 4** on Fractions is **due on Monday, March 25th.** Show gradebook to an instructor (initials) _____, in order to take TEST 4. **Number all of your problems and show your work neatly**. ☐ Begin working in the ***Decimals*** area of ALEKS. This is the cranberry pie piece.
Week 12	☐ Continue working in the ***Decimals*** area of ALEKS. This is the cranberry pie piece. ☐ REMINDER: By Friday, April 12, you should have a minimum of 209 out of 297 topics mastered.
Week 13	☐ **Test 5** on Decimals is **due Wednesday, April 10th**. Show gradebook to an instructor (initials) _____, in order to take TEST 5. **Number all of your problems and show your work neatly**. ☐ Begin working in the ***Ratio, Proportion, & Percents*** area of ALEKS. This is the purple pie piece. ☐ **PIE PROGRESS CHECK #2 grade on Friday, April 12:** You should have a minimum of 209 topics mastered by midnight on April 12.
Week 14	☐ **Scheduled Knowledge Check 3 due Monday, April 15th.** ☐ Continue working in the ***Ratio, Proportions, & Percents*** area of ALEKS. This is the purple pie piece.

Week 15	☐ **Test 6** on Ratios, Proportions, & Percents is **due Wednesday, April 24th.** Show gradebook to an instructor (initials) _____, in order to take TEST 6. **Number all of your problems and show your work neatly**. ☐ Begin working in the ***Square Roots & Pythagorean Theorem*** area of ALEKS. This is the <u>blue</u> pie piece. ☐ REMINDER: by Friday, May 3, you should have mastered all 297 topics. However, in order to receive full credit for this Pie Progress Check, we will looking for a minimum of 282 out of the 297 topics.
Week 16	☐ **Test 7** on Square Roots & Pythagorean Theorem is **due Friday, May 3rd.** Show gradebook to an instructor (initials) _____, in order to take TEST 7. **Number all of your problems and show your work neatly**. ☐ **PIE PROGRESS CHECK #3 grade on Friday, May 3:** You should have a minimum of 282 topics mastered by midnight on May 3.
	☐ **Final Exam** **<u>***Check final exam schedule for day and time of exam. Ask an instructor if you are unsure of when to take your exam.***</u>**

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