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Spring 1-2016

### M 065.01: Prealgebra

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Office: Math Technology Learning Center, Mansfield Library Level 1, Room 115

Text: MyLabsPlus eText

## **WELCOME TO PREALGEBRA!**

M065 is the first step on a journey of mathematical discovery, created to offer you a positive learning experience as we lay the foundation for understanding the principles and techniques of algebra. M065 is a one-semester course, covering the arithmetic and basic algebra skills needed for Introductory Algebra, M090. Topics include: different subsets of the number system; fractions, decimals and percentages with applications, ratios and proportions with applications; linear equations with applications; some geometry; and an introduction to graphing.

**PLACEMENT** in M065 is based on your individual mathematics assessment (ALEKS Level 1). Developmental courses' credits do not count toward associate degrees or baccalaureate degrees, but the credits do count for financial aid, Four Bear progress, the tuition flat-spot, and toward full- or part-time status. All developmental course grades carry the "R" designation.

Be certain that you are enrolled in the proper math class at the beginning of the semester. You may not be able to switch into a more appropriate class after the first week. If you have any concerns about your placement see your instructor immediately.

**WHY DO WE STUDY ALGEBRA?** Algebra allows us to solve problems for unknown quantities, draw graphs of relationships between numbers, and make use of the inherent structure of our number system, but the larger and more important goal in this course is to learn abstract reasoning. This deeper thinking allows us to draw from our mental toolboxes to solve certain types of problems.

This course has been designed for you, the student. Your willing participation is essential if you plan to succeed in this course. If we can have a motivated, friendly, and enthusiastic class, we will be able to try new things and have a good time while we all learn together. This course is not supposed to be either tedious or competitive.

No matter how you feel about studying math, it is important to learn personal responsibility and develop a solid work ethic.

**How do I access my course?** You can find the MyLabsPlus icon at the top of <http://my.umt.edu>.

## **Successful Students:**

- **Attend Every Wednesday Class**
- **Read the eBook, Take Notes, Watch Videos & Ask For Instructor Help**
- **Fulfill their MTLC Hours every week**
- **Work through the Study Plan**
- **Complete the Pre-Tests and Mastery Exams**

**MTLC:** The Mathematics Technology Learning Center (MTLC) is a large classroom filled with computers and an opportunity for one-on-one math instruction. There are 48 computer workstations, experienced faculty members and staff and a private workroom for small group instruction. Students will meet in the lab, as well as a classroom, to learn and prove their mastery of mathematics ensuring that they can successfully move onto and complete credited college math courses.

M065 is broken into eight chapters which each include a study plan, a pre-test and a test to prove your mastery on that chapter's concepts.

- You must finish 75% of study plan before you can take the pre-test. There are chapter resources for every concept covered in the study plan.
- After completing the study plan material, you will take a pre-test. The pre-test assesses your test readiness. You must earn an 80% on the pretest. Your highest grade will be counted.
  - If you do not achieve an 80% or better on the pre-test we will work together, using an adaptive study plan in MyLabPlus, one-on-one help, reading the e-text and watching provided videos, and small group instruction to prepare you for the mastery exam until you are able to earn an 80% on the pre-test.
- When you pass the pre-test for a specific module at 80% or better, you will be considered ready to take the mastery exam.
- You will then take the mastery exam and pass at a 75% or better to have mastered the material and you will not need to do any more work in that chapter.

**NOTEBOOK:** For the study plan work we will ask that you keep a notebook of your written work. The notebook will help us to answer questions you may have as well as assisting you in organizing your mathematics. A well-organized approach to mastering mathematical concepts that are unfamiliar to you is the best approach. It will also help you develop good study habits that will make your entire college experience more rewarding.

Your notebook will be worth 10% of your final grade in the course, and will be checked by an instructor before you take each mastery test.

The 10 points given for notebook check will be distributed in the following way:

- Present: 2 points, Student has a notebook in class.
- Organized: 2 points, Chapter and sections are labeled
- Math Definitions and Illustrations: 2 points, Vocabulary and drawings that explain the concepts
- Example Problems: 2 points, from the book, videos or instructor help
- Work problems: 2 Points: Study plan, Pre-test

**PARTICIPATION:** Student participation is essential for success in this course and the time requirements insure that the minimum time requirement is being met in an environment where knowledgeable help is available. There is a wide-range of instructor hours. Please see the schedule in mylabsplus.

- Your class will meet in the classroom each Wednesday. Participation is required and worth 5 points each week.
  - If you have successfully passed mastery exam of the current chapter being discussed in the Wednesday class, you are excused from the Wednesday class for that week.
    - For example, if we are discussing Chapter 2 and you have already finished the chapter 2 master exam with an 80% or better, you do not need to come to the Wednesday class.
- You are required to spend 4 hours in the Math Technology Learning Center each week. Your time is recorded automatically in the MTLC and you will be given 5 points for completing the hours.
  - If you pass a mastery exam with a 90% or better, you will only need to spend 2 hours in the MTLC until you complete the next exam. If you continue to receive A's on exams, you will continue to have your hours reduced to two hours each week.

**UNIVERSITY OF MONTANA POLICY:** Students who are registered for a course but do not attend the first two class meetings may be required by the instructor to drop the course. This rule allows for early identification of class vacancies to permit other students to add classes. Students not allowed to remain must complete a drop form or drop the course on the internet (<http://cyberbear.umt.edu>) to avoid receiving a failing grade. Students who know they will be absent should contact the instructor in advance.

Students are expected to attend all class meetings and complete all assignments for courses in which they are enrolled. Instructors may excuse brief and occasional absences for reasons of illness, injury, family emergency, or participation in a University sponsored activity. (University sponsored activities include for example, field trips, ASUM service, music or drama performances, and intercollegiate athletics.) Instructors shall excuse absences for reasons of military service or mandatory public service.

**PRE-TESTS AND MASTERY EXAMS:** You must finish Pre-tests and Mastery Exams by specific due dates. These dates are provided in the schedule posted in mylabs and posted in the MTLC. The weeks that pre-tests and mastery exams are due, you will be required to finish them by Saturday at 4pm. You will be given one extension during the semester, no questions asked. It is your responsibility to contact your instructor about an extension.

**OPPORTUNITY FOR AN EARLY COMPLETION AND ADVANCEMENT:** One of the major benefits of the MTLC is the ability for students to work ahead of the class pace. If you needed a brief math refresher, you may find that you will be able to move through the material at an accelerated pace. Or, you may decide to dedicate more time to math, and will find that dedication translates to an early finish. You have two choices if you finish M065 before the end of the semester; you can be done with your math course for the semester, or you can opt to start working in M090, Introductory Algebra. If you are able to finish M090, you will receive credit for M090.

**CALCULATOR:** A scientific calculator is required for M065; the Department of Applied Arts and Sciences recommends one of the Texas Instruments models, such as TI-30 or TI-34. They are inexpensive and offer a good introduction to the utility of calculators.

#### **LEARNING GOALS:**

- To manipulate integers and rational numbers arithmetically
- To use the order of operations to simplify arithmetic and algebraic expressions
- To simplify single variable linear expressions by combining like terms
- To solve linear equations and their applications

- To manipulate percentages and solve applied percentage problems
- To manipulate ratios and proportions and solve applied ratio and proportion problems
- To understand and apply the concepts of geometry including line, angle, shapes, perimeter, and area
- To graph lines in the rectangular coordinate system

**ACADEMIC CONDUCT:**

All students are expected to practice academic honesty as defined by the Student Conduct Code, available at <http://life.umt.edu/sa/documents/fromWeb/StudentConductCode1.pdf>. Academic misconduct is subject to an academic penalty by the instructor and a disciplinary sanction by the university.

**FINAL GRADES:**

The MTLC approach to learning mathematics is based on the concept of mastery. Since we have set the base level for mastery at 75% for each module’s mastery test, the final grades will be based primarily on your scores on the mastery test. In a traditional algebra course there are often a fair amount of points given for homework and quizzes. In this course the homework and quizzes are replaced by study plans designed to help you achieve appropriate scores on the mastery tests. For this reason the study plans will have a lower point value than you may have encountered in previous math courses. The real goal is to master the material!

The final grade will be computed using the following weights:

- Mastery Tests: 70%
- Pre-Tests 10%
- Notebook 10%
- Attendance/Participation: 10%

Students must complete M065 with a RC or better to advance to their next math course.

Letter grades correspond to numerical scores (as shown in MyLabsPlus) according to this plan:

RF	RD	RC	RB	RA
Below 60%	60-69%	70-79%	80-89%	90-100%

**GRADE OPTION:**

M065 can be taken for a traditional letter grade only. M065 cannot be audited or taken credit/no credit.

**TUTORING:** Math tutoring is available for all UM students. Check for hours of the Learning Center at the Missoula College campus (AD 06; 243-7826; two days’ notice required for scheduling tests) and at math@Mansfield on the Mountain Campus: <http://www.umt.edu/math/MLC/default.htm>. There will also be instructors and tutors available in the Math Technology Learning Center (MTLC), located in the basement of the Mansfield Library, room 115.

**REASONABLE ACCOMMODATIONS:** Students with disabilities may request reasonable modifications. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). “Reasonable” means the University permits no fundamental alterations of academic standards or retroactive modifications. For more information, please consult <http://www.umt.edu/dss/>. Examples of reasonable accommodations include extra time or use of a quiet room for tests and/or quizzes. To qualify for reasonable accommodations you must provide a letter from DSS. You are responsible for making the necessary arrangements with DSS (for the Mountain Campus) or the ASC (for the Missoula College campus). If you have any questions, please contact me.

**EXTRA CREDIT:** There is no extra credit available for this course.

**PETITION TO DROP:** Petitions for dropping will be considered only for students who provide written verification of at least one university approved excuse:

1. Error in registration
2. Family emergency
3. Accident or illness
4. Change in work schedule

Reasons that are not satisfactory include:

1. Forgetting to turn in a drop slip
2. Protecting a student's GPA

**INCOMPLETES:** A grade of incomplete will only be considered when all three of the following are true:

1. The student has been in regular attendance and passing up to three weeks before the end of the academic semester.
2. Factors beyond the student's control make it impossible to complete the course on time.
3. The instructor and the student agree that there is a reasonable probability that the student will be able to make-up the work required to complete the course and specific arrangements are drawn up and signed by both. A student who receives an incomplete has one calendar year to resolve the incomplete (I) before it automatically reverts to a failing grade (RF).

**IMPORTANT DATES:**

<http://www.umt.edu/registrar/PDF/Spring2016officialdatesdeadlines.pdf>