# MATH 0306
## Student Course Document

1.    **Course Title:**   Prealgebra Mathematics

2.    **Prerequisite:**   None

3.    **Credit:**   Three (3) semester hours

4.    **Materials Needed:**

   4.1   **Textbook:**   *Prealgebra Textbook\* (2nd Edition 2012-2013)*, by The Department of Mathematics; College of the Redwoods.  To download this textbook for free go to the math department website at http://www.lonestar.edu/math-dept-nharris.htm.  Click on the link for LSC-North Harris Math blog.  Once there, go to "Course Resources" and then click on "Math 0306."  Additional "Worksheets and Reviews" may also be downloaded from this same web page.

   **\*NOTE:**  This textbook may also be downloaded for free directly from the College of the Redwoods site at: http://mathrev.redwoods.edu/PreAlgText/

   4.2   **Calculator:**   Calculators are not allowed on the departmental final exam.  At the beginning of the semester your instructor will announce their policies about calculator usage for the rest of the course.

5.    **Purpose:**

The purpose of Math 0306 is to provide a review of arithmetic and fundamentals necessary for the study of algebra. The course is also designed to be a transition from arithmetic to algebra.

6.    **Major Course Outcomes: (percents indicate the weight of that outcome on the departmental final exam)**

   6.1   Demonstrate basic skills in computations, estimations, order of operations, and applications involving whole numbers and decimals. **(10%)**

   6.2   Demonstrate basic skills in computations, estimations, order of operations, and applications involving integers. **(15%)**

   6.3   Demonstrate basic skills in computations, estimations, order of operations, and applications involving rational numbers. **(15%)**

   6.4   Perform operations using the Commutative, Associative, Distributive, and Identity Properties of Addition and Multiplication. **(5%)**

   6.5   Solve linear equations in one-variable. **(20%)**

   6.6   Solve ratio and proportion and percent problems including applications. **(15%)**

   6.7   Recognize and Calculate angle relationships, and triangle relationships. **(10%)**

   6.8   Calculate perimeter and area of quadrilaterals, triangles, and circles.  Calculate volume of rectangular solids. **(10%)**

File:  O:\Math Dept. Chair\Course Documents\Instructor and Student Course Documents\0306\MATH 0306 - Student Course Document.docx

Revised:  08/22/13

**7.** **General Course Outline**
This course will cover Chapters 1,2,3,4,5,6, and 7.  The following sections will be omitted:  3.6, 6.3, 6.4, 6.5, 7.5, 7.6.   Some introductory topics in geometry and graphing sets on the number line will also be covered.  These topics are not found in the text, but supplements can be found on the math department website.

8.   **Evaluation:**
All Math 0306 students at Lone Star College – North Harris will take a common final exam. This exam will include all major outcomes for the course. These outcomes are listed above along with the number of points the questions on each outcome will count on the final exam. All students will have access to a complete review for this final exam through the department website. The score a student makes on the final exam will count 20% of their final average in the course. In addition, students MUST have a score of 50% or higher on this final exam to be eligible to receive a final grade of A, B, or C. Students who score less than a 50% on this final exam will automatically receive a grade of IP or F ** and will have to repeat the course.

**\*\*A grade of IP will only be given to students who continue to participate in class. Participation will be spelled out clearly in the course syllabus and will be related to attendance, performance on homework, and participation in class.**

9.   **Computer Lab Requirement:**
All Math 0306 students have a computer lab requirement for the course. These computer assignments can be completed in one of the labs on campus or at home. In general, students can expect to spend one to two hours per week on these assignments. The instructor will provide students lab time the first two weeks of classes to download the lab software to a flash drive.  The instructor will also provide information on which labs to complete, due dates on labs, and how to complete the labs at home. Instructors will be assigned one class period a week to take their students to a computer lab. The instructor decides how much of the assigned time to actually take the class to the computer lab.

10.   **Students Testing out of Math 0306 :**
Math 0306 students who believe they can be successful in Math 0308 can take the Math 0306 Challenge Exam in the Assessment Center.  Any student who scores above an 80 on the test may change to a Math 0308 section if they choose. This must be done before the Math 0308 class has met a 2nd time.  So students must take the Challenge Exam with enough time to be able to get into an 0308 section.  Send interested students to the Math Department Office for a referral form to take this Challenge Exam.

11.   **Other Resources:**

**Take a Teacher Home DVDs and Videotapes:** This series was created in-house tailored to LSC-NH Math 0306 course that students may check out at the LSC-NH Library Circulation Desk to take home or view in the Learning Center (LC) located in ACAD 200. Some of these videos are also available online. To access them, go to http://www.lonestar.edu/math-dept-nharris.htm , then click on **LSC-North Harris Math blog**.  Go to Videos and click on "Math 0306."

**Math Lab Software:** This software contains the required computer labs. In addition, it contains timed drills of the basic facts and operations with integer drills.

**MyLoneStar:** MyLoneStar gives students, faculty, and staff access to important academic information. It allows a student to register, search for courses, obtain financial aid information, pay tuition and fees, and view course grades. From www.lonestar.edu, click on MyLoneStar at the top right corner. Follow the instructions for securing your user name and password under the Self-Service Tools. Please contact the helpdesk at 1-866-614-5014 or send an email to ots@lonestar.edu for further assistance.

12. **Emergency Notification Info:**
    LSCS is committed to maintaining the safety of the students, faculty, staff, and guests while visiting any of our campuses. See http://www.lonestar.edu/oem for details. Register at http://www.lonestar.edu/12803.htm to receive emergency notifications. In an emergency, contact LSCS Police at 281-290-5911 or x5911.

13. **ADA statement:**
    The American Disabilities Act (ADA) is a federal anti-discrimination statute that provides civil rights protection for persons with disabilities. If you have a disability that requires accommodation(s) to participate in this course, please contact the LSC-North Harris Learning Accommodations Center Office as soon as possible (Winship 120, 281-765-7940). The office will provide you with documentation needed to provide your accommodation(s). Failure to handle this in a timely manner may result in delays.

14. **The Six –Drop Rule:**
    Students who enrolled in Texas public institutions of higher education as first-time college students during the Fall 2007 term or later are subject to section 51.907 of the Texas Education Code, which states that an institution of higher education may not permit a student to drop (withdraw with a grade of "W") from more than six courses, including courses that a transfer student has previously dropped at other Texas public institutions of higher education that have already been counted against their six drop limit. Each student should fully understand this drop limit before you drop any course. Please see a Counselor or Advisor in our Student Services area for additional information and assistance.

(**This page was intentionally left blank for double-sided printing**.)

# MATH 0306
# SOFTWARE TOPICS

| Textbook Sections | Lesson Name |
|---|---|
| 1.5 | Order of Operations |
| 2.2 | Adding Integers |
| 2.3 | Adding and Subtracting Integers |
| 2.4 | Multiplying and Dividing Integers |
| 2.5 | Order of Operations with Integers |
| 3.3, 3.4 | Simplifying Algebraic Expressions |
| 1.6 | Solving Equations: Addition Property of Equality |
| 1.7 | Solving Equations: Division Property of Equality |
| 1.6, 1.7, 2.6, 3.5 | Solving Equations in One Variable |
| 4.1 | Introduction to Fractions and Equivalent Fractions |
| 4.1 | Factors and Simplest Form |
| 4.2, 4.3 | Multiplying and Dividing Fractions |
| 4.4 | Add and Subtract Fractions |
| 4.7 | Complex Fractions |
| 4.8 | Solving Equations Containing Fractions |
| 4.5, 4.6 | Operations on Mixed Numbers |
| 5.1 | Introduction to Decimals |
| 5.2 | Adding and Subtracting Decimals |
| 5.3 | Multiplying Decimals and Circumference of a Circle |
| 5.4 | Dividing Decimals |
| 5.5 | Fractions and Decimals |
| 5.6 | Equations Using Decimals |
| 5.7, 5.8 | Square Roots and The Pythagorean Theorem |
| 6.2 | Proportions |
| 7.1 | Percents, Decimals, and Fractions |
| 7.2, 7.3, 7.4 | Percent Equations and Problem Solving |

# MATH 0306  DVD and VIDEO LIST

Video tapes and DVDs may be checked out in the Library or viewed in the Learning Center.
**Take a Teacher Home - Mathematics Series**

| Chapter/Section | Title | Topics |
|---|---|---|
| 1.5 | **Order of operations agreement - whole number** | **The Order of Operations Agreement – Whole Number Expressions** & Solving Linear Equations of the Form *ax+ b=c* |
| 1.6, 1.7, 3.1 | **Translating verbal expressions into variable express** | **Translating Verbal Expressions into Variable Expressions** & Translating Sentences into Equations |
| 2.2 & 2.3 | **Adding and subtracting integers [and] Order of** | **Adding and Subtracting Integers** & Order of Operations – Integers |
| 2.5 | **Adding and subtracting integers [and] Order of** | Adding and Subtracting Integers & **Order of Operations – Integers** |
| 3.2, 3.3 | **Simplifying variable expressions [&] Properties** | **Simplifying Variable Expressions  & Properties of Real Numbers (Distributive)** |
| 1.6, 1.7, 2.6 | **Introduction to solving linear equations; addition** | **Introduction to Solving Linear Equations – Addition Property and Multiplication Property of Equations** |
| 3.4, 3.5 | **Order of operations agreement - whole number** | The Order of Operations Agreement – Whole Number Expressions **& Solving Linear Equations of the Form *ax + b = c*** |
| 2.6, 3.3 | **Solving linear equations in one variable** | **Solving Linear Equations In One Variable** |
| 3.1 | **Translating verbal expressions into variable express** | Translating Verbal Expressions into Variable Expressions **& Translating Sentences into Equations** |
| 3.6 | **Solving word problems with linear equations** | **Solving Word Problems With Linear Equations** |
| 4.4 | **Addition and subtraction of signed fractions** | **Addition and Subtraction of Signed Fractions** |
| 4.6 | **Addition & subtraction of mixed numbers & Fractions,** | **Exponents, Complex Fractions, and The Order of Operations Agreement** & Addition and Subtraction of Mixed #s |
| 4.7 | **Addition & subtraction of mixed numbers & Fractions,** | Exponents, Complex Fractions, and The Order of Operations Agreement & **Addition and Subtraction of Mixed #s** |
| 7.1 | **Converting percent/ Fractions/ Decimals [and]** | **Converting Percent / Fractions / Decimals** & The Basic Percent Equation |
| 7.2 | **Converting percent/ Fractions/ Decimals [and]** | Converting Percent / Fractions / Decimals & **The Basic Percent Equation** |
|  | **MATH 0306 Final exam review** | **Math 0306 Final Exam Review**-Tape #1: Problems 1-96; Tape #2: Problems 97-178; Tape #3: Problems 179-248 |

*Videotapes and DVDs may be checked out in the NHC Library to take home or at the Main Desk in the Learning Center (LC) to view in the LC.  DVDs are formatted for standard DVD players.  They may not be compatible with some computers.

** A MATH 0306 Final Exam Review may be accessed or downloaded from the following website:
http://www.lonestar.edu/blogs/LSC-NorthHarrisMath under the **Reviews** tab on the menu.  Some of these videos above are also available on this blog site.  Click on the **Videos** tab and select **Math 0306**.