ARITHMETIC - MTH 01. Section D14 - 19487

Professor: Dr. Luis Fernández

Class times and room: Mon, Wed, 12:00–13:50, BL 206.

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Overview of the course.
This course will provide some basic tools that you will need in all your studies, regardless of your major. **It is important that you master these tools as you will need them in your next courses.**

Some resources:
- **Classes:** One purpose of attending classes is to learn faster than if you study on your own with a book. In addition, classes have the advantage of being interactive: you can ask if you need a clarification. To take full advantage of classes you need to review the previous class and look at the material that will be covered in the next class, and try some of the exercises. It is essential that you **do all the mandatory exercises** assigned for each class (see next page). Otherwise you will forget what you learn in the class.
- **Math Tutorial Lab:** The Math Tutorial Lab is a room where you will find permanent tutors for all maths courses. If you want to have the opportunity to ask questions as they arise while you do your homework, this is the place to go. It is located at CP 303 and opens 10–8 Monday to Thursday, 10–5 Friday, and 10–3 Saturday and Sunday.
- **Meetings with the instructor:** If you have not understood something well and need help, or for any other matters concerning the course, you can also talk to the instructor. Please write an e-mail to the address above to arrange a time, or go to office hours.

Textbook:
- *Arithmetic: a Textbook for Math 01,* third ed., by Dr. Anthony Weaver. Available online **for free** at:
http://fsw01.bcc.cuny.edu/mathdepartment/Courses/Math/MTH01/allmath01.pdf

Student's responsibilities
- To **attend** to class in time. **Students who miss 6 classes will automatically receive an F as final grade**. If there are mitigating circumstances about the absences, **talk to me promptly**.
- To use the **resources** available (some are above) to attain the main goal: <u>to learn</u>.
- To **prepare** each class by studying the material in the previous class, solving the recommended exercises and reading ahead in the text (or in internet) the material that will be presented.
- To work on many **exercises**, as it is impossible to learn mathematics without doing so. The main purpose of the exercises is not quite to find the answer, but to learn from them. Therefore, if you work in an exercise for a long time without finding a correct answer, do not feel frustrated, instead consider how much you have learned in the process.
- To **ask** questions during classs or tutorials about anything that has not been understood. EVEN IF YOU THINK THAT YOUR QUESTION IS TOO TRIVIAL, I GUARANTEE THAT MANY OTHER STUDENTS WILL BENEFIT FROM THE ANSWER. So when in doubt do your classmates a favor and ASK!

Instructor's responsibilities
- To act as *facilitator* of the learning process of the students, and to assist with any question that students may have about the material.
- To give tests and exams of appropriate difficulty. To grade tests and exams promptly and explain the students the meaning of their grades.

Classroom Rules
- **Tests will not be repeated.** The only exception is if the instructor receives **notice** of the absence (via e-mail, telephone, friend, etc) **on the day of the test or quiz**.
- Cell phones, music devices and laptops are not allowed during class time.
- Calculators are not allowed in this course.
- Talking about matters not related with math is not allowed during class time. Students must be quiet except when discussing mathematics during class time. It is strongly encouraged, however, that students participate and discuss the subject that is being studied in each class.

Exams and homeworks:
- There will be **three tests** during the term, **each worth 15%** of the final grade.
- **Homeworks** will be assigned each week. It is your obligation to **do the homework online via Blackboard**. It will count **15%** of the final grade.
- The **final exam** will count **40%** of the final grade.

Class plan and assigned exercises. MTH 01. Professor Luis Fernández

Use this to prepare each class in advance. Note that dates may change depending on how fast we advance.

DATE		SECTION	MANDATORY EXERCISES
Mo	1/28	1.1 Adding Whole Numbers 1.2 Subtracting Whole Numbers	Section 1.0.1, Section 1.1.3 Section 1.2.5
We	1/30	1.3 Multiplying Whole Numbers 1.4 Powers of Whole Numbers	Section 1.3.3 Section 1.4.2, Section 1.4.4
Mo	2/4	1.5 Division of Whole Numbers 1.6 Order of operations	Section 1.5.3 Section 1.6.1
We	2/6	1.7 Average 1.8 Perimeter, Area and the Pythagorean Theorem	Section 1.7.1 Section 1.8.1
Mo	2/11	2.1 What fractions mean 2.2 Proper and Improper Fractions 2.3 Mixed Numbers	Section 2.2.2 Section 2.3.2, Section 2.3.4
We	2/13	2.4 Multiplication of Fractions 2.5 Equivalent Fractions	Section 2.4.1 Section 2.5.2
Mo	2/18	NO CLASS: PRESIDENT'S DAY	
We	2/20	**FIRST TEST.** Covers from 1.1 to 2.3	
Mo	2/25	2.6 Prime Factorization and the GCF 2.7 Pre-cancelling when Multiplying Fractions	Section 2.6.1, Section 2.6.3, Section 2.6.5 Section 2.7.1
We	2/27	2.8 Adding and Subtracting Fractions	Section 2.8.1, Section 2.8.4, Section 2.8.6
Mo	3/4	2.9 Comparison of Fractions 2.10 Division of Fractions	Section 2.9.1 Section 2.10.2, Section 2.10.4
We	3/6	2.11 Mixed Numbers and Mixed Units	Section 2.11.2, Section 2.11.4
Mo	3/11	2.12 Combined operations with fractions and mixed numbers	Section 2.12.1
We	3/13	3.1 Decimal place values 3.2 Significant and Insignificant 0's 3.3 Comparing Decimals	Section 3.1.1 Section 3.3.1
Mo	3/18	**SECOND TEST.** Covers from 1.1 to 2.12	
We	3/20	3.4 Rounding-off 3.5 Adding and Subtracting Decimals	Section 3.4.1 Section 3.5.1
Mo	3/25	NO CLASS: SPRING RECESS.	
We	3/27	NO CLASS: SPRING RECESS.	
Mo	4/1	NO CLASS: SPRING RECESS.	
We	4/3	3.6 Multiplying and Dividing Decimals by Powers of 10 3.7 Multiplication of general decimals	Section 3.6.1 Section 3.7.1
Mo	4/8	3.8 Division of a decimal by a whole number 3.9 Division of a decimal by a decimal	Section 3.8.1 Section 3.9.1
We	4/10	3.10 Percents, Conversions 3.11 Fractional parts of numbers	Section 3.10.1 Section 3.11.1
Mo	4/15	4.1 Ratio 4.2 Proportions	Section 4.1.1 Section 4.2.3
We	4/17	4.3 Percent problems 4.4 Rates 4.5 Similar triangles	Section 4.3.1 Section 4.4.1 Section 4.5.1
Mo	4/22	5.1 Adding signed numbers	Section 5.1.1, Section 5.1.3, Section 5.1.5
We	4/24	5.2 Subtracting signed numbers	Section 5.2.1
Mo	4/29	**THIRD TEST.** Covers from 1.1 to 5.1	
We	5/1	5.3 Multiplying Signed Numbers 5.4 Dividing Signed Numbers 5.5 Powers of Signed Numbers 5.6 Square Roots of Signed Numbers	Section 5.3.1 Section 5.4.2 Section 5.5.1 Section 5.6.1
Mo	5/6	5.7 Evaluating Expressions 5.8 Using Formulae	Section 5.7.1 Section 5.8.1
We	5/8	5.9 Linear Equations in One Variable	Section 5.9.2
Mo	5/13	REVIEW FOR THE FINAL	Prepare questions for the review
We	5/15	REVIEW FOR THE FINAL	Prepare questions for the review

REMEMBER: The exercises listed correspond to the material that will be covered on the date they are listed.

Before each class, read the section that corresponds to that class and attempt some of the exercises. This way when you hear the explanations in class, you will understand the material much better.