Elementary Algebra - MTH 05, Sec. B10–45772

Professor: Dr. Luis Fernández
Class times and room: Tu, Th, 09:00 to 11:45, CP309.
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Overview of the course.
This course will provide some basic tools that you will need to become college proficient in math. **It is important that you master these tools. You will need them in your next courses.**

Some resources:
- **Classes:** Attendance is mandatory, and essential to succeed in the class. In class you will have time to learn new material, practice, and ask questions.
- **Free tutoring:** In the Learning Commons (ME Room SB-05) there are permanent tutors for all Developmental Math courses. Opens 10am to 8pm Monday to Friday, 10am to 3pm weekends.
- **Meetings with the instructor:** If you need help with any part of the course, or for any other matters, please come to my office during office hours (above) or write me an email to set up an appointment.
- **Emailing the instructor:** If you have questions while doing homework and need help quickly, please email me anytime (address above).

Textbook:
- *MTH 05 Lecture Notes*, by Andrew McInerney. **FREE!! It can be dowloaded at:**
  http://fsw01.bcc.cuny.edu/mathdepartment/Courses/Math/MTH05/05text0916a.pdf
- Students are also **required to have a scientific calculator** (some models cost less than $10).

Students' obligations and responsibilities
- Study and learn the material, using any resource to achieve this goal.
- Attend, be on time, be involved, and have an active participation in every class.
- Do and submit all the homework assignments in time.
- Treat peers and instructor in a respectful manner.
- Obtain all the material necessary for the class (textbook and calculator) in the first week.
- Bring all the materials (textbook, calculator, and workbook) to every class. I will hand out the workbook in the first week of class.

Instructor's obligations and responsibilities
- Act as *facilitator* of the learning process of the students, and assist with any question that students may have.
- Give tests and exams of appropriate difficulty. Grade tests and exams promptly and explain the students the meaning of their grades.
- Treat the students respectfully and impartially.

Classroom Rules
- **Students with 6 absences or more will automatically receive an F (Fail) in the course**. Lateness of 30 minutes or more will count as an absence.
- Cell phones and earphones are not allowed during class time or tests unless required by the instructor. **Each time a student is found using the cell phone during class will count as a cell phone violation. After 6 cell phone violations, students will receive an F (Fail) in the class**.
- There will be a break in the middle of each class. Students will be allowed to use cell phones during breaks.
- **In-class tests will not be repeated**. The only **exception** is if the instructor receives **notice** of the absence (via e-mail, telephone, message, a friend,. . .) **on the day of the test or quiz**.

Evaluation:
- The final exam for all Elementary Algebra Classes throughout the CUNY system is the CUNY Elementary Algebra Final Examination. It is administered by the testing center on a computer. It consists of 25 multiple-choice questions (4 choices per question) and the students have 1:50 min. to complete it. It counts **35%** of the final grade.
- There will be 3 tests, 2 hours each, during the semester. Each counts **20%**, but only the best two grades will count, totalling **40%**.
- Weekly homework assignments will be done online using **WebWork**. Homework counts **15%** of the final grade

Class plan and assigned exercises. MTH 05. Professor Luis Fernández

DATE	SECTION	TEXT EXERCISES	WEBWORK
Tu 8/28	1.1 Introduction.	**p. 4** ALL	HW 01
	1.2 Decimal representation.	**p. 4** ALL	HW 01
	1.3 Mixed numbers.	**p. 6** ALL	HW 01
	1.4 Graphing fractions.	**p. 9** ALL	HW 01
	1.5 Equivalent fractions.	**p. 9** ALL	HW 01
Th 8/30	1.6 Multiplying and dividing fractions.	**p. 14** ALL	HW 01
	1.7 Adding and subtracting fractions.	**p. 16** ALL	HW 01
Tu 9/4	2.1 Introduction.		HW 02
	2.2 Graphing signed numbers.		HW 02
	2.3 Adding and subtracting signed numbers.	**p. 28** ALL	HW 03
	2.4 Multiplying and dividing signed numbers.	**p. 31** ALL	HW 04
	2.5 Exponents and roots with signed numbers.	**p. 32** ALL	HW 05
Th 9/6	3.1 The order of operations.	**p. 39** ALL	HW 05
	3.2 Algebraic expressions.	**p. 43** ALL	HW 07
	3.3 Evaluating algebraic expressions.	**p. 43** ALL	HW 07
Tu 9/11	No classes scheduled (Rosh Hashanah).		
Th 9/13	3.4 Translating algebraic expressions.	**p. 46** ALL	HW 06
	4.1 Algebraic statements and solutions.	**p. 55** ALL	
	4.2 Solving linear equations in one variable.	**p. 67** ALL	HW 09
Tu 9/18	No classess scheduled (Yom Kippur).		
Th 9/20	4.3 A detour: Solving literal equations.	**p. 71** ALL	HW 10
	4.4 Solving linear inequalities in one variable.	**p. 82** ALL	HW 13
Tu 9/25	Review (1h). **TEST 1. Covers from 1.1 to 4.4.**		
Th 9/27	5.1 Solving linear equations in two variables.	**p. 94** ALL	HW 14
Tu 10/2	5.2 A detour: Slope and the geometry of lines.	**p. 114** ALL	HW 15, HW 16
Th 10/4	5.2 A detour: Slope and the geometry of lines.	**p. 114** ALL	HW 17, HW 18
Tu 10/9	5.3 Solving linear inequalities in two variables.	**p. 124** ALL	HW 19
Th 10/11	5.4 Solving systems of linear equations.	**p. 135** ALL	HW 20, HW 21
Tu 10/16	6.1 Introduction to polynomials.	**p. 143** ALL	HW 25
	6.2 Adding and subtracting polynomials.	**p. 148** ALL	HW 08
Th 10/18	6.3 Properties of exponents.	**p. 154** ALL	HW 22, HW 23
	6.4 A detour: Scientific notation.	**p. 159** ALL	HW 24
Tu 10/23	Review (1 h.). **TEST 2. Covers from 1.1 to 6.4**		
Th 10/25	6.5 Multiplying polynomials.	**p. 164** ALL	HW 26
Tu 10/30	6.6 Dividing a polynomial by a monomial.	**p. 167** ALL	HW 26
Th 11/1	7.1 Introduction.		
	7.2 Factoring out the greatest common divisor.	**p. 176** ALL	HW 27
Tu 11/6	7.3 Differences of squares.	**p. 179** ALL	HW 28
	7.4 Quadratic trinomials I. Monic trinomials.	**p. 184** ALL	HW 29
Th 11/8	7.5 Quadratic trinomials II. The ac-method.	**p. 191** ALL	HW 29
	7.6 Factoring by grouping.	**p. 195** ALL	
Tu 11/13	8.1 Quadratic equations and number systems.		
	8.2 Radical expressions.	**p. 209** ALL	HW 31
Th 11/15	8.3 Introduction to complex numbers.	**p. 213** ALL	HW 34
	8.4 Arithmetic of radical expressions.	**p. 218** ALL	HW 32, HW 33
Tu 11/20	Review (1 h.). **TEST 3. Covers from 1.1 to 8.4**		
Th 11/22	9.1 Solving quadratic equations I. A first strategy.	**p. 228** ALL	
Tu 11/27	9.4 Solving quadratic equations IV. Factoring.	**p. 242** ALL	HW 30
Th 11/29	9.2 Completing the square.	**p. 234**, **p. 239** ALL	HW 35
	9.3 The quadratic formula.	**p. 234**, **p. 239** ALL	HW 36
Tu 12/4	9.5 Summary and applications.	**p. 248** ALL	
	9.6 Introduction to quadratic equations in two variables.	**p. 255** ALL	
Th 12/6	Review for the CEAFE test.		
Tu 12/11	Review for the CEAFE test.		