

**Meeting Days, Times, and Rooms**

*Tuesdays*  
*5:45 pm-9:15 pm*  
**EA S 310**

**Instructor**

Dr. Susan S. Gorelick

**Telephone/Extension**

(401) 739-5000 ext.3664

**E-mail address**

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**Office location**

East Greenwich Campus, South 316K

**Office hours**

Highlighted in my schedule listed on the last page of the syllabus

**Course prerequisite(s)**

MA 040 or math placement test

**Required textbook/resources (and any other materials):**

- Beginning Algebra, Tobey, Slater, Blair & Crawford, 8<sup>th</sup> Edition.
- A scientific calculator is required. This can be a \$10 (or less) calculator, as long as it is scientific. *You may not use a phone or iPod or tablet as a scientific calculator for any quiz or exam. You cannot use the calculator on the computer for any quiz or exam.*
- A 2 inch 3 ring binder is recommended to organize your handouts and notes. You must come to class prepared. Have paper, writing utensil, and a scientific calculator. **Keep your work up to date** and organized.
- It is a requirement of this course that the final exam is passed regardless of your average prior to the final exam. See Evaluation and Grading for more information.

**Course description:** Topics to be studied in this introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, and several applications important to various technical areas.

**Course objectives/Assessment measures:** Upon completion of this course, students will be able to:

- Apply basic math concepts and formulas to solve practical problems in their technical fields of study.
- Perform operations with polynomials.
- Perform operations with radical terms.
- Solve first degree equations.
- Solve right triangles using trigonometric ratios and Pythagorean Theorem.
- Solve word problems.

Mastery of these objectives will be evidenced by correctly solving such problems in class activities, homework assignments, problem sets, chapter tests, and a comprehensive final exam. More specific math skills to be learned in this course are indicated under the topics section of the attached course outline. This course covers the same material as the MA 110 course, but with extra class time to help improve skills, have frequent quizzing, and cumulative reviews.

**Evaluation and Grading Criteria:** There will be handouts with worksheets to be completed given each class day except for the days of the tests and final exam. These will be available on **Canvas** (a link to Canvas is on the NEIT student homepage, [www.students.neit.edu](http://www.students.neit.edu)) if you are not in class to receive them. If you cannot print them out from home, then print them out on campus. **You are responsible for obtaining missed work.** You will have points removed for late work. Any work turned in late will take an automatic point deduction. 10 points for each class day late.

Handout worksheets and Assigned Textbook Problems	10%
Practice Tests	10%
Cumulative Reviews (incl. X, Y, Z)	15%
4 Tests	40%
<b>Final Exam</b>	<b>25%</b>

- Students are required to pass the Department Final Exam with a grade of 60 to pass the course. With this requirement in mind, students are being offered a second opportunity to pass the Final. Students can only qualify for taking a retest if their average was above 60 prior to the Final. The highest grade that can be received on a retest is a 75. The retest will be administered by faculty from the department, day and time to be announced. It will be during the break week(s) between quarters. If you cannot make the day and time the retest is given it is up to your instructor whether or not they will allow you to retest another time. If you do not pass the final and/or retest you will need to retake the course.

**Attendance Policy:** Attendance is required, punctuality is expected. You are responsible for any missed assignments and missed notes. No cell phones or beepers on during class unless you have gotten permission, from me, ahead of time. **No texting!** Excessive lateness or absences could result in lowering your average. Your commitment to improving your math skills by attending and participating is essential to your success in this course.

**Homework Policy:** There will be worksheets given almost every class day, sometimes more than one worksheet that will be checked before you leave class each day as time permits. Otherwise, they will be checked the next class day. *Work must be shown for credit.* **Textbook homework is always due the next class.** It needs to also be **written neatly, and work shown.** A list of answers is not sufficient for credit. The assignment should be listed at the top of the page. If you have a lot of trouble on the assignments, you should be setting aside extra time to go for tutoring help. We will begin each class with questions from the previous assignment. I expect you to *be organized* when you come to class and have your questions ready. You should also have a *calculator and notebook* with you at all classes. You may want a separate folder or notebook for your homework assignments and class handouts. Homework is due the next class for full credit. Do not get behind! There is no calculator use in chapter 1.

**Make-up Policy:** There are *no makeups*. If there is a problem, speak to me. If you just disappear from class I cannot help you. Come to class and communicate any problems to me.

**Tardiness:** I expect you to be on time, ready for class, and attentive.

## MATH/SCI DEPARTMENT POLICIES

It is Math/Science Department policy that any class work or tests missed due to absence or tardiness, without sufficient cause, will be graded as 0. Instructors are not obliged to allow makeup work in these instances, although they may at their discretion.

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## COLLEGE POLICIES

### Academic Honesty Policy:

Any project, paper, or examination is expected to be the student's own work in the student's own words. Willful academic dishonesty (including but not limited to copying another student's work or allowing one's own work to be copied; using notes or books during an examination without the instructor's advance permission; presenting information or images copied from a book, journal, or online source as one's own) will not be tolerated.

### Other Policies:

Each student is responsible for accessing the <http://wcb.neit.edu/shandbook/syllabuspolices.pdf> web site and becoming familiar with all academic policies. Students should be familiar with the following policies:

- Course Registration – Add and Drop Policy
- Challenge Exams
- Student Computing and Networking Use Policy
- Electronic Communication Device Acceptable Use Policy
- Credit Hours
- Class requires in class and out of class work

## ACADEMIC SUPPORT

Academic support services are available through the Academic Skills Center, Student Support Services, and the Library.

**Math Lab Hours:** Monday through Thursday 8am to 7pm, Friday 8 to 4, Saturday 9 to 1

**Special Note:** NEIT reserves the right to change the above schedule and requirements without advance notice.

**MA 110 Course Outline**

TOPICS

I. INTRODUCTION

Addition of signed numbers  
Subtraction of signed numbers  
Multiplication and division of signed numbers  
Exponents  
Order of operations  
Distributive property  
Combining like terms  
Evaluating expressions  
Grouping symbols  
Basic geometric formulas

II. EQUATIONS

Addition Principle  
Multiplication Principle  
Addition and Multiplication in combination  
Equations with fractions  
Formulas  
Translating English into algebraic expressions  
Using equations to solve word problems  
Applications involving comparisons  
Ratio and proportion and other applications  
Direct and inverse variation

III. EXPONENTS AND POLYNOMIALS

Basic rules of exponents  
Negative exponents and scientific notation  
Addition and subtraction of polynomials  
Multiplication of polynomials  
Special Cases  
Factoring using the distributive property

IV. RADICALS AND FRACTIONAL EXPONENTS

Square root  
Simplifying radicals  
Definition of fractional exponent  
Addition and subtraction of radicals  
Multiplying monomial expressions  
Quotient rule for square roots  
Pythagorean Theorem

**MA 110.60M Course Schedule**

Week	Topic	In-class Activity	Out-of-class Activity/Assignment	Due Dates
<b>WEEK 1: July 21</b>	1.1 Addition of signed numbers, p. 65-75 1.2 Subtraction of signed numbers, p. 76-80 1.3 Multiplication and division of signed numbers, p. 81-90 1.4 Exponents p. 91-95 1.5 Order of operations p. 96-99	<i>Introduction to MA110</i>  Add, Subtract, Multiply, and Divide Signed Numbers  Working with Exponents  Order of Operations	<b>HOMEWORK 1</b>  <b>Section 1.1</b> Pg 73-75 # 11-35 odd, 61, 63, 67  <b>Section 1.2</b> Pg 79-80 # 1-23 odd, 57, 59, 63  <b>Section 1.3</b> Pg 88-90 # 1-15 odd, 23-35 odd, 39, 45, 69  <b>HOMEWORK 2</b>  <b>Section 1.4</b> Pg 94-95 # 3-13 odd, 17-31 odd, 45, 47 <b>Section 1.5</b> Pg 98-99 # 5-23 odd	Week 2
<b>WEEK 2: July 29</b>	1.6 Distributive property p. 101-105 1.7 Combining like terms p. 106-110 1.8 Evaluating expressions p. 111-117 1.9 Grouping symbols p. 118-121	Distributive property and Combining Like Terms Evaluating Expressions	<b>HOMEWORK 3</b>  <b>Section 1.6</b> Pg 104-105 # 9-29 odd  <b>Section 1.7</b> Pg 109-110 # 7-25 odd, 35, 43 <b>HOMEWORK 4</b>  <b>Section 1.8</b> Pg 115-116 # 3-25 odd, 37, 43-51 odd <b>Section 1.9</b> Pg 120-121 # 7-25 odd <b>Practice Test 1 Sheet – Study for Test 1</b>	Week 3
<b>WEEK 3: August 4</b>	2.1 Addition Principle p. 131-136 2.2 Multiplication Principle p. 137-142	Grouping Symbols Solving Equations Using Addition and Multiplication Methods	<b>HOMEWORK 5</b>  <b>Section 2.1</b> Pg 135-136 # 9-31 odd, 37-41 odd  <b>Section 2.2</b> Pg 141-142 # 5-27 odd, 33-37 odd	Week 4

	2.3 Addition and Multiplication in combination p. 143-149	<b>TEST 1</b>	<b>Section 2.3</b> Pg 147-148 # 1-21 odd, 37-47 odd	
<b>WEEK 4: August 11</b>	2.4 Equations with fractions p. 150-156 6.6 Ratio and proportion and other applications p. 379-386  2.5 Formulas p. 158-164 3.1 Translating English into algebraic expressions p. 185-190	Solving Equations with Fractions  Solving proportions and Solving formulas  Translating English into algebra	<b>HOMEWORK 6</b> <b>Section 2.4</b> Pg 154-155 # 1-15 odd, 21  <b>Section 6.6</b> Pg 384 # 2-8 all  <b>HOMEWORK 7</b> <b>Section 2.5</b> Pg 161-163 # 7-23 odd, 37, 39  <b>Section 3.1</b> Pg 189-190 # 1-13 odd 19, 21	Week 5
<b>WEEK 5: August 18</b>	3.2 Using equations to solve word problems p. 191-199 3.3 Applications involving comparisons p. 200-205 6.6 Ratio and proportion and other applications p. 379-386	<i>Ch 3.1 – 3.3 lecture &amp; practice - Using equations to solve word problems and solving comparison word problems</i>  <b>TEST 2</b>	<b>HOMEWORK 8</b> <b>Section 3.2</b> Pg 197 # 1-15 odd, 19, 21  <b>Section 3.3</b> Pg 203-204 # 1-11 odd  <b>Section 6.6</b> Pg 384-385 # 1-13 odd, 15, 19, 23, 25  <b>Study for Test 2</b>	Week 6
<b>WEEK 6: August 25</b>	4.1 Basic rules of exponents p. 245-255 4.2 Negative exponents, p. 256-262  4.2 Scientific notation p. 256-262 4.3 Addition and subtraction of polynomials p. 263-268	<i>Ch 4.1-4.2 lecture &amp; practice -Rules of Exponent; and Negative Exponents &amp; Scientific notation</i>	<b>HOMEWORK 9</b> <b>Section 4.1</b> Pg 253-255 # 7-31 odd, 41-59 odd, 65-83 odd  <b>Section 4.2</b> Pg 261 # 3-25 odd  <b>HOMEWORK 10</b> <b>Section 4.2</b> Pg 261 # 31-51 odd  <b>Section 4.3</b> Pg 267 # 11-29 odd, 37	Week 7

	4.4 Multiplication of polynomials p. 270-275		<b>Section 4.4</b> Pg 274 # 1-11 odd, 21-35 odd	
<b>WEEK 7: September 1</b>	4.4 Multiplication of polynomials p. 270-275 4.5 Special Cases p. 276-281 5.1 Factoring using the distributive property p. 297-301	<i>Ch 4.3-4.5, 5.1 lecture &amp; practice - - Adding &amp; Subtracting Polynomial; Multiplying Polynomials; and Factoring the GCF</i>  <b>TEST 3</b>	<b>HOMEWORK 11</b>  <b>Section 4.4</b> Pg 274 # 26-40 even  <b>Section 4.5</b> Pg 280-281 # 9-23 odd, 47, 49  <b>Section 5.1</b> Pg 300 # 5-19 odd, 27-33 odd  <b>Study for Test 3</b>	Week 8
<b>WEEK 8: September 8</b>	9.1 Square roots p. 511-514 9.2 Simplifying radicals p. 515-519  Fractional Exponent - Handout  9.3 Addition and subtraction of radicals pp. 520-523 9.4 Multiplying radical expressions p. 524-528 9.5 Quotient rule for square roots p. 530-535	<i>Ch 9.1-9.3 lecture &amp; practice -- Simplifying Radical; Fractional Exponent; and Adding &amp; Subtracting Radicals</i>	<b>HOMEWORK 12</b>  <b>Section 9.1</b> Pg 513 # 25-45 odd  <b>Section 9.2</b> Pg 518-519 # 9-29 odd, 37-47 odd  <b>Definition of fractional exponent</b> *notes, Handout completed for HW  <b>HOMEWORK 13</b>  <b>Section 9.3</b> Pg 522-523 # 5-17 odd, 25-35 odd  <b>Section 9.4</b> Pg 527-528 # 5-27 odd  <b>Section 9.5</b> Pg 534 # 1-17 odd	Week 9
<b>WEEK 9: September 15</b>	9.6 Pythagorean Theorem 536-542  3.5 Basic geometric formulas p.217-226	<i>Ch 9.4-9.6, 3.5 lecture &amp; practice - - Multiplying &amp; Dividing Radicals; Pythagorean Theorem; and Geometric Formulas</i>  <b>TEST 4</b>	<b>HOMEWORK 14</b>  <b>Section 9.6</b> Pg 540-541 # 1-17 odd, 21, 23 (decimals answers are fine here)  <b>Section 3.5</b> Pg 223 # 11-23 odd, 37  <b>HOMEWORK 15</b> <b>Final Review Worksheet</b>	Week 10
	MA110 Course Review	<i>Final Exam Review</i>	<b>MA 110 Review Worksheet – due Final Exam day</b>	

<b>WEEK 10:</b> <b>September</b> <b>22</b>		<b>FINAL EXAM</b>		
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**Susan Gorelick's Summer 2015 Quarter Schedule & Office Hours**

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>
	7:30 am to 9:10 am <i>PHY 200.02M</i> <b>S 310</b>		7:30 am to 10:10 am <i>PHY 200.02M</i> <b>S 310</b>
9:20 am to 11:00 am <i>MA 109.11</i> <b>N 321</b>		9:20 am to 11:00 am <i>MA 109.11</i> <b>S 315</b>	
<b>Office Hours S316K</b>		<b>Office Hours S316K</b>	
11:40 am to 1:20 pm <i>MA 109.21</i> <b>S 302</b>		11:40 am to 1:20 pm <i>MA 109.21</i> <b>S 302</b>	
<b>Office Hours S316K</b>	<b>Office Hours S316K</b>	<b>Office Hours S316K</b>	
3:30 pm to 5:35 pm <i>PHY126.41M</i> <b>S 309</b>	3:30 am to 5:10 pm <i>MA 109.42</i> <b>S 302</b>	3:30 pm to 5:35 pm <i>PHY 126.41M</i> <b>S 309</b>	3:30 am to 5:10 pm <i>MA 109.42</i> <b>S 302</b>
	5:45 pm to 9:15 pm <i>MA 110.60M</i> <b>S 310</b>	<i>If you need to make an appointment outside the posted office hours, please contact me either at <a href="mailto:sgorelick@neit.edu">sgorelick@neit.edu</a> or at (401) 739-5000 extension 3664</i>	