NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE

<table>
<thead>
<tr>
<th>COURSE:</th>
<th>PREFIX NO.</th>
<th>EFFECTIVE DATE</th>
<th>NEXT REVIEW DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 150</td>
<td></td>
<td>August 2014</td>
<td>August 2015</td>
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</table>

<table>
<thead>
<tr>
<th>TITLE:</th>
<th>CREDITS</th>
<th>CLASS - LAB - TOTAL</th>
</tr>
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<tbody>
<tr>
<td>Fundamentals of Math</td>
<td>3</td>
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PREREQUISITES: Acceptable placement score or completion of MAT 032 with a grade of "C" or better.

DESCRIPTION: This course includes the following topics: elementary number theory; basic algebra and geometry; English and SI measurements; ratio and proportion; statistics; and graph interpretation.

* Calculator usage will be introduced after completion of exponents and polynomials.

TEXTBOOK(S) OR ALTERNATIVE: Developmental Mathematics, 1st edition, D. Franklin Wright. The Mathematics Department approved electronic course management system is optional depending on the instructor’s preference.

MATERIALS (specifying those to be purchased by student): Graphing and/or scientific calculators are strongly recommended.

COLLATERAL READING:

CLASS MANAGEMENT ACTIVITIES: (Attendance, tardies, testing, etc.).

Academic Dishonesty: Students are expected to do their own work. Please refer to the NETC Student Code and Grievance Procedure for a definition of academic dishonesty and an outline of the disciplinary action that may result.

Attendance: Students are expected to attend all scheduled classes and are responsible for all classwork, homework, notes, etc., whether or not they are present. In the event of extenuating circumstances, such as illness, you are allowed to miss up to 8 hours. The student will be dropped after missing more than 8 hours of scheduled classes. If the instructor drops a student for excessive absences at any time during the semester, a grade of "F" may be assigned. If the student withdraws from the course, a grade of "W" or "WF" will be assigned as outlined in the College catalog. There is no such thing as an excused absence. If you exceed the allowed number of absences, you will be dropped.

Tardies: A student is considered tardy if not present for roll call, which is taken at the beginning of the class. Three tardies constitute one (1) hour of absence.

Classroom Etiquette:
1. Electronic communication devices (pagers, cell phones, etc.) are NOT allowed in the classroom. On-call emergency personnel should see the instructor for an exemption.
2. No visible food or drinks are allowed in the classrooms.
3. No radios or headphones are allowed in the classrooms.

**Student ID Policy:** It is mandatory that every student wear his/her ID at all times on campus. During the first week of classes, the instructor will issue a reminder to wear the ID. This reminder is a warning. After the first week of classes, instructors are required to dismiss students without an ID from class. The student may get his/her ID (or purchase a temporary or a new one in Student Services) and return to class before the midpoint of the class. If the student cannot get an ID and return to class by the midpoint, the instructor will record the absence.

**DISABILITIES STATEMENT:** Students with disabilities are encouraged to contact the Dean of Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean of Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See College Catalog)

**RESOURCES (A-V, persons, tools/equipment):**

**COURSE TOPICAL OUTLINE** (List topics and sub-topics of course and Calendar or approximate length of time devoted to topic.)

<table>
<thead>
<tr>
<th>WEEK</th>
<th>SECTION</th>
<th>TOPIC</th>
<th>PAGES</th>
<th>SUGGESTED PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7.1</td>
<td>The Real Number Line and Absolute Value</td>
<td>500-510</td>
<td>p. 511-512: 1-62</td>
</tr>
<tr>
<td></td>
<td>7.2</td>
<td>Addition with Real Numbers</td>
<td>514-520</td>
<td>p. 521-523: 1-70</td>
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<tr>
<td></td>
<td>7.4</td>
<td>Multiplication and Division with Real Numbers</td>
<td>538-543</td>
<td>p. 544-545: 1-70</td>
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<tr>
<td></td>
<td>TEST 1</td>
<td>Introduction to Algebra (Section 7.1-7.5)</td>
<td></td>
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<tr>
<td>3</td>
<td>7.6</td>
<td>Properties of Real Numbers</td>
<td>556-558</td>
<td>p. 559-560: 19-38</td>
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<td></td>
<td>7.7</td>
<td>Simplifying and Evaluating Algebraic Expressions</td>
<td>562-567</td>
<td>p. 566-569: 1-62</td>
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<tr>
<td></td>
<td>7.8</td>
<td>Translating English Phrases and Algebraic Expressions</td>
<td>571-574</td>
<td>p. 575-577: 17-40</td>
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<tr>
<td>4</td>
<td>8.1</td>
<td>Solving Linear Equations: $x + b = c$ and $ax = c$</td>
<td>594-602</td>
<td>p. 603-604: 1-54</td>
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<tr>
<td></td>
<td>8.2</td>
<td>Solving Linear Equations: $ax + b = c$</td>
<td>606-611</td>
<td>p. 612-613: 1-64</td>
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<tr>
<td></td>
<td>8.3</td>
<td>Solving Linear Equations: $ax + b = cx + d$</td>
<td>614-620</td>
<td>p. 621-623: 1-64</td>
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<td>WEEK</td>
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| 5    | TEST 2  | Introduction to Algebra and Solving Linear Equations  (Section 7.6-7.8, 8.1-8.3)  
       | 8.4    | Applications: Number Problems and Consecutive Integers  
       | 9.1    | The Cartesian Coordinate System  | 624-629 | p. 630-633: 1-48  
| 6    | 9.2     | Graph Linear Equations in Two Variables:  
       |        | $Ax + by = C$  
       |        | Applications of Solving Linear Equations and Graphing  (Section 8.4, 9.1-9.2)  | 703-708 | p. 709-711: 1-56  
| 7    | 11.1    | Exponents  | 846-856 | p. 857-858: 1-84  
|       | 11.2    | Exponents and Scientific Notation  | 859-870 | p. 871-873: 1-25, 47-82  
| 8    | 11.3    | Introduction to Polynomials  | 874-878 | p. 879: 1-30  
|       | 11.4    | Addition and Subtraction with Polynomials  | 882-885 | p. 886-888: 1-64  
| 9    | TEST 4  | Multiplication with Polynomials  | 889-892 | p. 893-894: 1-38, 47-58  
|       | 11.5    | Exponents and Polynomials  (Section 11.1-11.5)  |       |                   |
| 10   | 4.4     | Ratio and Proportion  | 270-274 | p. 275-278: 1-74  
| 11   | A.1     | U.S. Measurements  | 1232-1236 | p. 1237: 1-40  
|       | A.2     | The Metric System  | 1238-1248 | p. 1249-1251: 1-83  
| 12   | TEST 5  | Ratio, Proportion, and Measurements  
       | 5.1    | Angles  | 350-360 | p. 361-364: 5-37  
|       | 5.2    | Perimeter  | 365-370 | p. 371-374: 4-37  
| 13   | 5.3     | Area  | 375-379 | p. 380-383: 1-48  
|       | 5.4     | Circles  | 385-389 | p. 390-393: 1-36  
| 14   | 5.6     | Triangles  | 403-411 | p. 412-415: 1-32  
|       | 6.1     | Statistics: Mean, Median, Mode, and Range  | 446-449 | p. 450-452: 1-20  
|       | TEST 6  | Geometry and Basic Statistics  (Section 5.1-5.4, 5.6, 6.1-6.2)  |       |                   |
Course Outline
MAT 150
Page 4

<table>
<thead>
<tr>
<th>WEEK</th>
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</thead>
<tbody>
<tr>
<td>15</td>
<td>EXAM REVIEW</td>
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**INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES:**
- Lectures
- Examples of problems worked on the board.
- Homework assignments
- Tests

**STUDENT LEARNING OUTCOMES:** The student will demonstrate an ability to perform arithmetic operations with integers, rational, decimal and real numbers and to apply these skills to introductory algebraic operations.

**COLLEGE WIDE COMPETENCIES:** Apply mathematical/computational skills to solve problems.

**EVALUATE METHODS TO APPRAISE OBJECTIVES:** The overall course grade will be weighted as follows:

- Minimum 6 Tests: ... 60%
- Homework/Quiz: ..... 15%
- Final Exam: ........ 25%

NO test grades will be dropped under any circumstances. A comprehensive departmental exam will be given at the end of the semester during the final exam week.

Make-up Test Procedure: No make-up tests are given except in extenuating circumstances. The student is responsible for contacting the instructor prior to the time the test is scheduled, to arrange a meeting to discuss the process of making up the missed test.

**GRADING SCALE:** The grade point scale that will be used is as follows:

- A = 93 - 100
- B = 85 - 92
- C = 77 - 84
- D = 70 - 76
- F = BELOW 70

Any student receiving a grade of D or F is required to repeat MAT 150. The prerequisite for MAT 155 or MAT 101 is acceptable placement score or completion of MAT 150 with a grade of “C” or better.