Required Software: Online access to MyMathLab (part of MyLab & Mastering) from Pearson. The courseID for this class is *shaw53098*. For instructions and to log on, visit: [http://www.pearsonmylabandmastering.com/](http://www.pearsonmylabandmastering.com/)

Accompanying Text:

Prerequisite: Math Compass score of 67, Math SAT score of 550, Math ACT score of 23, a college-level mathematics class, or consent of department.

Instructional Resource Fee: $40.00

Course Description:
This is an online mathematics course intended for liberal arts students at the college level. *Mathematical Ideas* is divided into historical perspectives, algebraic systems, and applied
consumer mathematics. Topics include numerations, finite mathematics, algebra of real numbers, linear-quadratic-exponential functions, geometry, and consumer mathematics.

Liberal Arts and Sciences Core Objectives:
This course satisfies the Mathematics requirement of the Liberal Arts and Sciences Core Curriculum. Students will be able to:
- understand and use basic mathematical concepts and skills.
- utilize various tools of analysis to enable critical thinking.

General Mathematics Learning Outcomes:
Upon successful completion of mathematics courses:
- students will be competent in a system of symbolic reasoning.
- students will be able to apply symbolic reasoning to analyze and draw meaningful conclusions using information, which may be presented in a variety of ways, including visually, symbolically, or in ordinary language.

Course Learning Outcomes:
Upon successful completion of this course, students should be able to:
- Understand and perform the basic arithmetic operations on fractions.
- Understand mathematical concepts in basic number theory, algebra, geometry and consumer mathematics.
- Solve equations and use formulas appropriately.
- Graph equations and interpret their meanings.
- Compute area, perimeter and volume and understand these ideas.
- Understand the relations between functions and their graphs.

Grading and Evaluation:
Your final grade will be assigned using the scale below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-</td>
<td>90% – 92%</td>
</tr>
<tr>
<td>A</td>
<td>93% – 100%</td>
</tr>
<tr>
<td>B-</td>
<td>80% – 82%</td>
</tr>
<tr>
<td>B</td>
<td>83% – 86%</td>
</tr>
<tr>
<td>B+</td>
<td>87% – 89%</td>
</tr>
<tr>
<td>C-</td>
<td>70% – 72%</td>
</tr>
<tr>
<td>C</td>
<td>73% – 76%</td>
</tr>
<tr>
<td>C+</td>
<td>77% – 79%</td>
</tr>
<tr>
<td>D</td>
<td>60% – 69%</td>
</tr>
<tr>
<td>F</td>
<td>below 60%</td>
</tr>
</tbody>
</table>

Your grade will be broken down as follows:
- Homework..............................15%
- Quizzes...............................40%
- Midterm Exam ......................20%
- Comprehensive Final ..........25%
**Homework**
Homework will be assigned every week. Each homework assignment must be completed before you may attempt to complete the quiz associated with that material, so it is important to attempt the homework as soon as possible.

**Quizzes**
Quizzes will be assigned every week and are due by 11:00 p.m. CST on the dates listed in the class schedule. You will have a time limit of one hour for each quiz.

**Midterm and Final Exams**
The midterm and final exams must be taken in person. They will be administered on the Columbia College Chicago campus at the Learning Studio (618 S. Michigan Ave., first floor). You will be asked to show a current I.D. The dates and times during which the Learning Studio will proctor exams are shown below. The time limit for both exams is two and a half hours and you must schedule your start time so that you are finished by the time the Learning Center closes. It is entirely your responsibility to ensure that you will have enough time to complete the exam.

<table>
<thead>
<tr>
<th>Midterm</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/27/15, 9am–7pm</td>
<td>12/15/15, 9am–7pm</td>
</tr>
<tr>
<td>10/28/15, 9am–7pm</td>
<td>12/16/15, 9am–7pm</td>
</tr>
<tr>
<td>10/29/15, 9am–7pm</td>
<td>12/17/15, 9am–7pm</td>
</tr>
</tbody>
</table>

If you cannot take the exams on campus at the Learning Studio during any of the above times, other arrangements must be made by the end of the first week of classes. Contact the instructor as soon as possible.

**Academic Integrity:**
Students at Columbia College enjoy significant freedom of artistic expression and are encouraged to stretch their scholarly and artistic boundaries. However, the college prohibits all forms of academic dishonesty. For present purposes, "academic dishonesty" is understood as the appropriation and representation of another's work as one's own, whether such appropriation includes all or part of the other's work or whether it comprises all or part of what is represented as one's own work (plagiarism).

Appropriate citation avoids this form of dishonesty. In addition, "academic dishonesty" includes cheating in any form, the falsification of academic documents, or the falsification of works or references for use in class or other academic circumstances. When such dishonesty is discovered, the consequences to the student can be severe. (Taken from the Columbia College Chicago Student Handbook.)
Services for Students with Disabilities:
623 S Wabash, suite 304
312.369.8296 ssd@colum.edu
Columbia College Chicago seeks to maintain a supportive academic environment for students with disabilities. Students who self-identify as having a disability should present their documentation to the Services for Students with Disabilities (SSD) office. After the documentation has been reviewed by the SSD office, a Columbia College accommodation letter will be provided to the student. Students are encouraged to present their Columbia accommodation letters to each instructor at the beginning of the semester so that accommodations can be arranged in a timely manner by the College, the department, or the faculty member, as appropriate. Accommodations will begin at the time the letter is presented. Students with disabilities who do not have accommodation letters should visit the office of Services for Students with Disabilities, Room 304 of the 623 S. Wabash building (312-369-8296). Please visit the website at www.colum.edu/ssd

Counseling Services:
731 S. Plymouth Court, suite 112
312.369.8700 counselingservices@colum.edu
Services are designed to help students address concerns and increase self-awareness, while empowering to manage challenging areas in their lives. All counseling staff follows professional standards of confidentiality. Information discussed within a counseling relationship will not be disclosed without written permission of the individual. Counseling Services are provided free of charge. Services include individual, couple, and group therapy for students. All currently enrolled students are eligible to receive services. Counseling Service provides students with 10 free individual counseling sessions per academic year.

College Advising:
623 S Wabash, suite 300
312.369.7645 collegeadvising@colum.edu
The College Advising Center provides undergraduate students with information, guidance, and support to create and implement an integrated educational and professional plan in the arts and media fields. College advisors assist students with all transitional issues to help them navigate the entire college experience. The Advising Center helps students clarify and take responsibility for their academic and career goals. First-year students are expected to meet with their college advisor at least once a semester during their first year.

The Learning Studio:
618 S. Michigan, first floor
312.369.8130 www.colum.edu/learningstudio
The Learning Studio is an excellent resource for academic progress and success for all students at any level. The Learning Studio provides tutoring in a number of disciplines including Accounting, the Science and Math Learning Center, the Foreign Languages Lab and the Writing Center. Students are encouraged to go to the Learning Studio and work with the tutors. Students can make an appointment through Oasis (using the “Make Appointments” tab) or call the Learning Studio.
**Science Visualization Lab:** The Science and Mathematics Department maintains a computer lab on the 6th floor of 623 S. Wabash, Room 600-P. When not reserved for class sessions, this lab is open to students currently enrolled in Science and Mathematics classes for work on Science and Math related projects.

Science Visualization Lab  
623 S. Wabash  
6th Floor, Room 600-P  
M-F 9:00 AM - 7:00 PM

### Course Calendar:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics for study</th>
<th>Due dates</th>
</tr>
</thead>
</table>
| Week 1 9/7 – 9/13 | Prime and Composite Numbers  
Greatest Common Factor and Least Common Multiple  
Sections: 5.1 and 5.4 |  |
| Week 2 9/14 – 9/20 | The Fibonacci Sequence and the Golden Ratio  
Real Numbers, Order, and Absolute Value  
Properties and Applications of Real Numbers  
Rational and Irrational Numbers  
Sections: 5.5, 6.1, 6.2, 6.3 | Quiz 1 due on Tuesday, 9/15/15 (sections 5.1 and 5.4)  
Monday, September 14 is the last day to Add |
| Week 3 9/21 – 9/27 | Decimal Representation  
Applications of Decimals and Percents  
Linear Equations  
Sections: 6.4, 6.5, 7.1 | Quiz 2 due on Tuesday, 9/22/15 (sections 5.5, 6.1, 6.2, 6.3)  
Monday, September 21 is the last day to Add |
| Week 4 9/28 – 10/4 | Applications of Linear Equations  
Sections: 7.2 | Quiz 3 due on Tuesday, 9/29/15 (sections 6.4, 6.5, 7.1) |
| Week 5 10/5 – 10/11 | Ratio, Proportion, and Variation  
Linear Inequalities  
Sections: 7.3, 7.4 | Quiz 4 due on Tuesday, 10/6/15 (section 7.2) |
| Week 6 10/12 – 10/18 | Properties of Exponents and Scientific Notation  
Polynomials and Factoring  
Sections: 7.5, 7.6 | Quiz 5 due on Tuesday, 10/13/15 (sections 7.3, 7.4) |
| Week 7 10/19 – 10/25 | Quadratic Equations and Factoring  
Sections: 7.7 | Quiz 6 due on Tuesday, 10/20/15 (sections 7.5, 7.6) |
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics for study</th>
<th>Due dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 8</strong>&lt;br&gt;10/26 – 11/1</td>
<td><strong>Midterm Review</strong>&lt;br&gt;The midterm review quiz is longer than a typical quiz, but takes the place of the lowest quiz grade if completed.</td>
<td><strong>Quiz 7 due on Tuesday 10/27/15 (section 7.7)</strong>&lt;br&gt;<strong>Midterm review quiz due by Wednesday, 10/28/15</strong>&lt;br&gt;<strong>Midterm Exam must be taken between Tuesday 10/27/15 and Thursday 10/29/15</strong></td>
</tr>
<tr>
<td><strong>Week 9</strong>&lt;br&gt;11/2 – 11/8</td>
<td><strong>The Rectangular Coordinate System and Circles</strong>&lt;br&gt;Lines, Slopes, and Average Rate of Change&lt;br&gt;Sections: 8.1, 8.2</td>
<td><strong>Monday, November 2 is the last day to withdraw</strong></td>
</tr>
<tr>
<td><strong>Week 10</strong>&lt;br&gt;11/9 – 11/15</td>
<td><strong>Equations of Lines and Linear Models</strong>&lt;br&gt;Linear Functions, Applications, and Models&lt;br&gt;Quadratic Functions, Graphs, and Models&lt;br&gt;Sections: 8.3, 8.4, 8.5</td>
<td><strong>Quiz 8 due on Tuesday, 11/10/15 (sections 8.1, 8.2)</strong></td>
</tr>
<tr>
<td><strong>Week 11</strong>&lt;br&gt;11/16 – 11/22</td>
<td><strong>Systems of Equations</strong>&lt;br&gt;Applications of Systems&lt;br&gt;Points, Lines, Planes and Angles&lt;br&gt;Curves, Polygons, and Circles&lt;br&gt;Sections: 8.7, 8.8, 9.1, 9.2</td>
<td><strong>Quiz 9 due on Tuesday, 11/17/15 (sections 8.3, 8.4, 8.5)</strong></td>
</tr>
<tr>
<td><strong>Week 12</strong>&lt;br&gt;11/23 – 11/29</td>
<td><strong>The Geometry of Triangles</strong>&lt;br&gt;Perimeter, Area, and Circumference&lt;br&gt;Sections: 9.3, 9.4</td>
<td><strong>Thanksgiving holiday 11/26 – 11/28</strong>&lt;br&gt;<strong>Quiz 10 due on Tuesday, 11/24/15 (sections 8.7, 8.8, 9.1, 9.2)</strong></td>
</tr>
<tr>
<td><strong>Week 13</strong>&lt;br&gt;11/30 – 12/6</td>
<td><strong>Volume and Surface Area</strong>&lt;br&gt;The Time Value of Money&lt;br&gt;Sections: 9.5, 13.1</td>
<td><strong>Quiz 11 due on Tuesday, 12/1/15 (sections 9.3, 9.4)</strong></td>
</tr>
<tr>
<td>Week 14</td>
<td>Topics for study</td>
<td>Due dates</td>
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</tbody>
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| 12/7 – 12/13 | Consumer Credit  
Truth in Lending  
Sections: 13.2, 13.3 | Quiz 12 due on Tuesday, 12/8/15 (sections 9.5, 13.1) |

<table>
<thead>
<tr>
<th>Week 15</th>
<th>Topics for study</th>
<th>Due dates</th>
</tr>
</thead>
</table>
| 12/14 – 12/19 | Final Exam Review  
The Final Exam review quiz is longer than a typical quiz, but takes the place of the lowest quiz grade if completed.  
Final Exam  
You must have a proctor for the final exam. See the instructions above for having your exam proctored on campus, or contact your instructor to discuss options for proctoring off-campus. | Quiz 13 due on Tuesday, 12/15/15 (sections 13.2, 13.3)  
Final Review Quiz due on Wednesday, 12/16/15  
Final Exam must be taken between Tuesday, 12/15/15 and Thursday, 12/17/15 |

**Disclaimer Statement:** This syllabus may be amended as the course proceeds. You will be notified of all changes.