

MANHATTAN COLLEGE
Syllabus

<u>Course Title</u>	Mathematics for the Elementary School Teachers I
<u>Course Number</u>	MATH 221
<u>Section Number(s)</u>	01 & 02
<u>Semester</u>	Fall
<u>Year</u>	2012

Course Description

Courses for prospective teachers in elementary school who are not majoring in mathematics. The content and method will follow the current standards of the National Council of Teachers of Mathematics for the elementary level. Topics include tools for problem solving, numeration systems, and number theory.

Class Meeting Times

Section 01: | Lecture | 9:05 AM – 10:00 AM | MTR | LEO 329

Section 02: | Lecture | 10:10 AM – 11:05 AM | MTR | LEO 329

<u>Instructor's Name</u>	Dr. Tyler Markkanen
<u>Office Location</u>	RLC 200A
<u>Office Hours</u>	TBA (See HW 0.)
<u>Contact Information</u>	tyler.markkanen@manhattan.edu (718) 862-7831

Required Textbook for the Course

Beckmann, S. *Mathematics for Elementary Teachers with Activity Manual, Third Edition.*

ISBN: 9780321646941

ISBN: 9780321646965 (Activity Manual)

Subject Material Covered in the Course

We will cover some or all of the sections in each of the following chapters:

Chapter 1: Numbers and the Decimal System

Chapter 2: Fractions

Chapter 3: Addition and Subtraction

Chapter 4: Multiplication

Chapter 5: Multiplication of Fractions, Decimals, and Negative Numbers

Chapter 6: Division

Chapter 7: Combining Multiplication and Division: Proportional Reasoning

Chapter 8: Number Theory

Chapter 9: Algebra

Outcome Expectations

Students completing MATH 221 will be able to:

- Demonstrate conceptual understanding of important mathematics in the content areas of problem solving, number and operations, and algebra.
- Produce comprehensive lesson plans that focus on standards-based objectives, engage diverse learners, and assess student learning of important concepts.
- Develop confidence in one's own abilities for doing mathematics.
- Use multiple representations (e.g. concrete, pictorial, verbal, and symbolic representations) for teaching mathematical concepts.
- Solve problems using multiple approaches and strategies, including technology.
- Develop communication skills in mathematics with the goal of using mathematical discourse to raise levels of mathematical thinking among students.
- Recognize the importance of reflective teaching and continued professional development, including communication with colleagues, workshop participation, and membership in NCTM.

Howework Assignments

- You will hand in one mathematical and/or teaching-related exercise for each section of the textbook that we cover. The homework (HW) due dates will be announced in. They will usually be due on Thursdays (as a combined assignment). ALL WORK and steps should be clearly shown, and no credit will be given for just the answers. Remember, office hours are a good place to get homework help.
- **HW 0:** Logon to our course website on Moodle at <https://lms.manhattan.edu>. Download the Excel handout named **Weekly_Schedule**, save it to your computer, and submit it on Moodle. To submit it, click on **HW 0: Submit Weekly Schedule** and upload your saved Excel file.

HW 0 IS DUE ON TUESDAY 9/28 BY 11:55 PM.

Dates and Times of Exams

- **EXAMS:** There will be **two in-class exams** and a **cumulative final exam**. The dates of the exams are shown below.

Exam 1	Thurs Oct 4
Exam 2	Tues Nov 20
Final Exam	TBA (Finals Week is Mon-Sat 12/10-12/15)

Grading Method, Extra Credit Assignments, and Make-Up Policy

- **GRADE:**

	Percentage of Final Grade
Class Participation	20%
Homework	20%
Exams (2)	20% (each)
Final Exam	20%

- **CLASS PARTICIPATION:** You are required to involve yourself in class discussions and activities. The grade you receive for class participation (CP) will depend on three criteria: (1) your expressed knowledge and understanding of assigned readings, (2) the

amount you involve yourself in the classroom, and (3) the quality of your presentations for assigned projects.

- **EXTRA CREDIT:** There will be occasional extra credit opportunities. Stay tuned for the details of each extra credit assignment as the semester progresses.
- **MAKE-UPS:** Make-up quizzes and exams are generally not allowed unless you tell me **in advance** that you are going to be absent on an exam day. After solutions to a HW have been posted, make-ups for that HW will not be allowed.

Attendance Policy

You are expected to attend each class. Please come to class prepared and ready to learn. Ask questions and make helpful comments. Be ready to participate in class discussions and activities. If you miss class, you are responsible to get the notes and assignment(s) from someone in the class, as well as any handouts. **You must notify me IN ADVANCE if you will be absent on a quiz/exam day.**

Expected Academic/Professional Conduct

- All written work must conform to standard English usage. Failure to meet such standards will affect your grade.
- When placed on your assignments, your name verifies that the work is your own.
- All Manhattan College students are expected to maintain the highest standards of academic and personal integrity. Any violations of academic integrity like exam cheating, facilitation of dishonesty, plagiarism, i.e. copying from any source (classmates, published sources, internet) for an assignment without proper quotation and citation, will be dealt with in accordance with the student handbook of Manhattan College and will result in disciplinary penalties.

Schedule – Reading Due Dates for Textbook Sections (Unless Otherwise Stated in Class)

M	8/27	1 st Day – No Sections to Read	M	10/22	7.3
T	8/28	1.1, 1.2	T	10/23	7.4
R	8/30	1.3, 1.4	R	10/25	7.5
M	9/3	LABOR DAY - NO CLASSES	M	10/29	8.1
T	9/4	2.1, 2.2	T	10/30	8.2
R	9/6	2.3, 2.4	R	11/1	8.3
M	9/10	2.5, 2.6	M	11/5	8.4
T	9/11	3.1, 3.2	T	11/6	8.5
R	9/13	3.3, 3.4	R	11/8	8.6
M	9/17	3.5	M	11/12	8.7
T	9/18	4.1, 4.2	T	11/13	REVIEW
R	9/20	4.3, 4.4	R	11/15	REVIEW
M	9/24	4.5, 4.6	M	11/19	REVIEW
T	9/25	5.1, 5.2	T	11/20	EXAM 2
R	9/27	5.3, 5.4	R	11/22	THANKSGIVING - NO CLASSES
M	10/1	REVIEW	M	11/26	9.1, 9.2
T	10/2	REVIEW	T	11/27	9.3, 9.4
R	10/4	EXAM 1	R	11/29	9.5
M	10/8	COLUBUS DAY - NO CLASSES	M	12/3	9.6
T*	10/9	6.1, 6.2	T	12/4	9.7
R	10/11	6.3, 6.4	R	12/6	9.8
M	10/15	6.5, 6.6			
T	10/16	7.1			
R	10/18	7.2			

*Tues Oct 9 is a Monday schedule.