George Mason University
MATH-271-001 – Mathematics for the Elementary School I (3 credits)
Spring 2019

Instructor:	**Joanna Jauchen**
Contact Info:	Exploratory Hall, room 4403 Email: jjauchen@gmu.edu
Instructor Policies:	1. Please do work in pencil**.** You can use color when you want, but your primary writing instrument should be a pencil. We make lots of mistakes in this course. 2. I don't accept late work. I'm pretty strict about this, so just be aware. 3. Unless we're using them in class, please turn off computers and phones upon entering class. Please also be sure to put away anything not related to this course.
Class Meeting Time and Location:	Innovation 206 TR 12:00 – 1:15 pm
Office Hours:	Tues 9:00 – 10:15 am Exploratory Hall 4403 Thursday 9:30* - 10:15 am Exploratory Hall 4403 Also office hours by appointment
Required Materials:	1. Mathematics for Elementary Teachers, A Conceptual Approach. 9th Edition. Bennett, Burton and Nelson. This is an old edition, which we use to keep costs to students down. I do not care where you get the book from, but I searched Amazon today and the book was $7. That's the market price for the book A copy of the book is also available at Fenwick Library Reserves for a 2 hour checkout. Call number: QA39.3 .B457 2012 2. Large Ziploc bag of manipulatives – including blue base 10 blocks and a geoboard (at the GMU bookstore) 3. A Pencil bag containing the following: colored pencils or pens, graph paper, glue stick and/or tape, ruler with cm and in, internet access, a *small stapler* and scissors. Also four big dry erase markers in different colors, and something to use as an eraser for the whiteboards (old sock, washcloth, etc). Oh – don't forget creativity and patience.
Course Description:	Concepts and theories underlying elementary school mathematics, including sets, logic, systems of numeration, whole numbers, integers, fractions, decimals, measurement, operations with real numbers, equations, and inequalities. Intended for school educators; does not count toward a major in mathematics.
Blackboard/Email:	I will use Blackboard extensively in this course to post assignments, videos, announcements and to facilitate class discussion. Please plan to check Blackboard and your email daily for updates about the course.

Preparedness / Collaboration:

In this course, we will spend almost all of our time exploring mathematical ideas in groups of 3-9 people, engaged in active learning assignments. In order to get the most out of class, and also be a contributing member of your group, you need to come prepared for class each day. I will also ask you to be intentional and think carefully about how to make your group a great place to work and learn. Your Collaboration grade will be based on our observations of how you are working with each other. Some of the things I will be looking for are:

Being prepared means:

- Doing all assigned readings and work before class
- Asking questions about homework and concepts before coming to class
- Bringing all necessary materials to class, as instructed

Collaborating in class means:

- Making thoughtful contributions to the group discussions and activities
- Encouraging a positive group atmosphere where all participant views are valued equally
- Ensuring all group members have an opportunity to voice their views
- Staying on task (no cell phones, texting or off topic conversations)
- Being on time and staying engaged for the entire class

Significant deductions are taken for using cell phones during class. Your collaboration grade is 10 points. The first time you are using a cell phone, I take off 5 points. The second time is another 5 points. After that, I ask you to leave class.

Reading

Reading your conceptual textbook will be vital in this course. I will discuss some strategies for making the most of this during class, but some tips include:

- Reading should be active – read with a pencil, make notes, and answer the questions asked in the text
- Mark anything you have questions about with a sticky note and then come ask one of us about them. Be sure to write yourself notes about what I find together.
- Consider keeping a notebook of notes from your reading – you need to restate important concepts in your own words.

In Class Work:

As noted above, we will be actively collaborating on mathematical tasks and activities during class. Many of these activities and tasks will have a final product that will be collected at the end of the class period. If you miss class, you miss the opportunity to turn these assignments in. Missed In-Class assignments radically affect your collaboration grade.

Out of Class Work:

Homework is assigned every day in this course – out of the book, online and in handouts. You will turn in all homework that is posted and I grade a random sample of the assigned problems.

Assignments should be posted a week in advance with some links in our Blackboard shell. No late work is accepted. No assignments are accepted via email.

Tests & Final Exam:

There are 3 exams in this course, and one comprehensive final exam which is given in several parts. There are no make-up exams.

Exams are scheduled to be taken on the dates indicated in the schedule on the last page. I reserve the right to change exam dates as the semester progresses.

The final exam date is also given on the last page.

Exam Corrections

Exam corrections are due one week after exams are returned at the beginning of class. No late exam corrections are accepted for credit. Please follow these instructions:

1. Do not write on your original exam at all. Turn this in with your corrections.
2. Fully rework any problem that you missed, even if you just missed a part of it. So if you had points deducted on problem 2a, you need to rework *all* of problem 2a, not just part of it. But if you got 2b right, you don't have to rework that. Please ask if you have questions.
3. Exam corrections need to be submitted in order, stapled to the back of your original exam.
4. To complete exam corrections, you are welcome to come work with me, or one of the LAs. You *may not* work with other students or look at your fellow students' solutions to see what they did.

Grading on Exam Corrections is all or nothing, out of the number of points you missed on the exam. No partial credit. So if you missed 20 points on the original exam, and earned 15 back on the corrections, your grade on the corrections is 15/20 = 75. Your original exam grade is not affected by exam corrections.

Requirements and Grading:

You choose which of these grading options you want for the semester

OPTION 1 (with collaboration):

3 Unit Exams	45%
Exam Corrections	15%
Out of Class Work	15%
Collaboration (including In-Class work)	10%
Final Project	15%

OPTION 2 (with no collaboration):

3 Unit Exams	55%
Exam Corrections	15%
Out of Class Work	15%
Final Project	15%

Scale:

100-90	A
89-80	B
79-70	C
69-60	D
59-0	F

+/- will be based on instructor discretion

Withdraw & Audit

See the GMU website for important add/drop deadlines: http://registrar.gmu.edu/calendars/fall-2014/

Academic dishonesty and the GMU Honor Code:

You are expected to follow the GMU Honor Code *http://academicintegrity.gmu.edu/honorcode/*

No collaboration is allowed on quizzes or tests. Any indication that you have worked together, used someone else's ideas, copied, or allowed fellow student to copy your work is a violation of the GMU Honor Code. Copying homework or classwork is also not allowed. Copying solutions out of the back of the book is also not allowed. You are expected to be a full contributing member of your group.

Some of the behaviors that will be considered cheating are:

- Communicating with another person during an assessment
- Copying material from another person from any assignment being graded
- Allowing another person to copy from any assignment being graded
- Use of unauthorized assistance on any assignment being graded
- Use of unauthorized notes or books during an assessment
- Providing or receiving a copy of a quiz or exam used in the course
- Use of a cell phone during an assessment

Learning Differences & Special Needs

If you have a learning or physical difference that may affect your academic work, please see me and contact the Office of Disability Services (ODS) at 993-2474, http://ods.gmu.edu . All academic accommodations must be arranged through the ODS.

Counseling and Psychological Services

Counseling and Psychological Services are available for GMU students.
http://caps.gmu.edu
703-993-2380

University Policies

The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting students, faculty and staff conduct in university academic affairs. Other policies are available at http://universitypolicy.gmu.edu/. All members of the university community are responsible for knowing and following established policies.

MATH-271-001 – Mathematics for the Elementary School I (3 credits)

Schedule is tentative and subject to change.

Class	Topic	Lesson
1/22	Class Introduction 1.1 Problem Solving	Lesson 1
1/24	1.2 Patterns and Sequences	Lesson 2
1/29	2.1 Sets, the Real Number System and Properties of Operations	Lesson 3
1/31	2.3 Logic	Lesson 4
2/5	3.1 Numeration systems and Place value	Lesson 5
2/7**	**Counting Quiz** 3.2 Addition of Natural Numbers	Lesson 6
2/12	3.2 Subtraction of Natural Numbers	Lesson 7
2/14	3.2, 5.1 Addition and Subtraction of Integers	Lesson 8
2/19	No Class – Attend orals to review for exam	Lesson 9
2/21	**Exam 1**	
2/26	3.3, 5.1 Multiplication of Natural Numbers and Integers	Lesson 10
2/28**	3.4, 5.1 Division of Natural Numbers and Integers	Lesson 12
3/5	4.1 Factors and Multiples 4.2 Greatest Common Factor and Least Common Multiple	Lesson 13
3/7	5.2 Rational Numbers	Lesson 14
3/11 - 3/15	Spring Break	
3/19	5.3 Multiplication and Division of Rational Numbers	Lesson 15
3/21	5.3 Addition and Subtraction of Rational Numbers	Lesson 16
3/26	Linear Units of Measure and Conversions	Lesson 17
3/28**	No Class – Attend orals to review for exam	Lesson 18
4/2	**Exam 2**	
4/4	6.1 Decimals and Rational Numbers	Lesson 19
4/9	6.2 Addition and Subtraction of Decimals	Lesson 20
4/11	6.2 Multiplication and Division of Decimals	Lesson 21
4/16	6.3 Percents with Decimal Squares	Lesson 22
4/18**	6.4 Irrational and Real Numbers	Lesson 23
4/23	No Class – Attend orals to review for exam	Lesson 24
4/25**	**Exam 3**	
4/30	6.4 Irrational and Real Numbers	Lesson 25
5/2	No Class – work on Final Exams	Lesson 26
5/11	**Cumulative Final Project Due**	