Syllabus for Math 212
Foundations of Elementary Mathematics II
Winter 2012

Instructor: Breeann Flesch
Contact Information: office: MNB 126 phone: (503) 838-9489*
email: fleschb@wou.edu* webpage: www.wou.edu/∼fleschb

Materials:

- Textbook, Mathematics for Elementary Teachers: A Conceptual Approach, 8th Edition, Bennett, Burton and Nelson
- Activity book, Mathematics for Elementary Teachers: An Activity Approach, 8th Edition, Bennett, Burton and Nelson
- Manipulative Kit, Mathematics for Elementary Teachers, 8th Edition
- A scientific calculator with at least the capabilities of a T. I. 83 is required for the 211-212-213 course series. A T. I. 83 or 84 is highly recommended. Please see me if you are purchasing a new calculator.

Schedule:

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00				MATH 212-001	Office Hour
9:00	MATH 212-001		MATH 212-001	MATH 212-001	MATH 212-001
10:00	MATH 212-002		MATH 212-002	MATH 212-002	MATH 212-002
11:00	Office Hour		Office Hour	MATH 212-002	
12:00	Lunch		Lunch		
1:00	Office Hour		Office Hour		
2:00	MATH 398-001		MATH 398-001		
3:00	MATH 398-001		MATH 398-001		Meeting
4:00					

*My preferred method of communication is email.

Please feel free to drop by my office during my office hours for help. You do not need to make an appointment to come to office hours. At times other than my listed office hours you are welcome and encouraged to call or email me with questions about the course. If you have direct scheduling conflicts with my office hours and would like further help, please let me know.

Course Description:
MTH 212 Foundations of Elementary Mathematics II (4)
Intended for prospective elementary or middle school teachers. Operations with fractions and decimals, percents, ratio and proportion, real numbers. Introduction to probability and statistics. Three hours lecture plus two hours lab. Does not apply toward a math major/minor. Prerequisite: MTH 211 with a grade of C- or better (Offered every quarter)

Class Structure:
All classes will be a mix of an interactive lecture, hands-on activities and problem solving sessions.

- Please bring your text and your manipulative kit to class every day.
- Please bring your activity book to class as noted on the class schedule and assignments webpage

Learning Outcomes:
This course is designed for students planning to be elementary or middle school teachers. The work in this course will include learning and reviewing the mathematics you learned before and learning how students, particularly children, learn mathematics. For many activities and topics you will be exploring the material from the perspective of the students you will be later teaching. It is expected that you can do basic operations with numbers. Our goals for this class are that you should:

- Gain deeper and clearer understanding of basic mathematical concepts
- Gain deeper and clearer understanding of how children learn mathematics
- Experience problem solving and the use of the Oregon Scoring Guide
- Experience hands-on activities to facilitate the above goals
- Be expected to write about mathematics
- Be exposed to resources that help connect the concepts you are learning now to your future as teachers.

In specific we will look at: fraction and decimal models, operations and number properties, data analysis, probability and statistic

Attendance:
Daily attendance is required for your success in this course. If you miss class, it is your responsibility to ask a classmate for notes on the material that you have missed. I will not have discussion notes available if you have missed class, nor will I repeat my discussion during office hours.

Exams can only be made up or taken in advance with a documented university sanctioned absence from class (choir, sports, etc.) or possibly for a serious documented emergency. Ordinary illness (such as a cold) or any non-university sanctioned absence from class does not count as a documented emergency, even if you have a note from a doctor

Grade:
The standard grading scale will be used for this class:

Range	Grade	Range	Grade	Range	Grade	Range	Grade	Range	Grade	Range	Grade
93 - 100	A	87-89	B+	80 - 82	B-	73 - 76	C	67 - 69	D+	60 - 62	D-
90 - 92	A-	83 -86	B	77 - 79	C+	70 - 72	C-	63 - 66	D	< 60	F

Course assessment:

Homework	50%
Midterm Exams	15% x 2 = 30%
Final Exam	20%
Pass Math 212 Skills Test	REQUIRED

Homework:
There will be a variety of homework assignments given in this course. Assignments will be posted on your class assignments webpage. Completing your homework in a timely fashion will be integral to your success in this course. I suggest you set up a homework and reading schedule for yourself and follow it carefully. You will find that if you do not do all of your homework you will not succeed in learning the material covered in this course. These assignments will include but not be limited to the following.

Assignment Source	**Assessment Method**
BBN Online Learning Center Applets	Direct grading
Conceptual Approach textbook questions	Spot check and direct grading
Activity Approach Follow Up questions	Direct grading / Follow-Up rubric
http://connect.mcgraw-hill.com homework	Direct grading
Problems of the Week	Direct grading
Scavenger Hunt	Direct grading

BBN Online Learning Center Applets:
The Bennett/Burton/Nelson Online Learning Centers will be linked to your Math 212 webpage.

Each chapter in the book has a corresponding interactive mathematics applet in the Online Learning Center. At appropriate times during the term, you will be asked to explore the applets for Chapters 5, 6, 7 and 8 and write a brief summary of your experience. Due dates will be posted on your 212 schedule and assignments webpage.

Text Homework Questions:

These are assigned from your Conceptual Approach hard cover text. Due dates will be posted on your 212 schedule and assignments webpage. Although you are required to turn in all of the questions, only a few will be directly graded. This will not be announced in advance.

Activity Follow Up Homework Questions:

These are assigned from your Activity Approach Follow-Up questions and will be directly graded using the rubric below. Due dates will be posted on your 212 schedule and assignments webpage.

http://connect.mcgraw-hill.com homework:

This homework will be similar to text homework questions, but will be assigned and completed online at http://connect.mcgraw-hill.com.

Scoring for Follow-Up Questions:

Each Activity-Follow Up question is worth 10 points. The points will be allocated based on the rubric below.

Category	**Description**	**Points**
Understanding	Understanding of the problem is demonstrated. A reasonable strategy for solving the problem is applied.	2
Completeness	Each part of the question is answered. All sketches or diagrams asked for in the problem are present. All steps taken to solve the problem are given with rationale for them and enough detail for another student to understand. All key calculations are shown.	3
Clarity	The solution is easy to read and follow. The answer is clearly identifiable. Good formatting, spelling, grammar, and typing or handwriting is used. Sketches or diagrams are neat, clear and well labeled.	3
Correctness	The answer is correct and all calculations are accurate.	2

Problems of the Week: As we begin our path as teachers we will begin to focus on problem solving skills. Four times this term, you will be assigned special problems to help you focus on your

problem solving skills. Detailed instructions will be provided.

Scavenger Hunt: Each student will be responsible for one Scavenger Hunt topic; see the handout Scavenger Hunt Directions."

Exams:
There will be two midterm exams and final exam in this course. The midterm exams will be cumulative but will emphasize the recently covered material. The final exam will be cumulative.

The final exam will be offered at a group time on finals week. See your course webpage and the official final exam schedule for the exact date and time.

Makeup exams will only be available in the case of documented emergency or a documented university sanctioned absence from class (examples: student teaching in the education program, university representation in a music presentation, etc.). Prior notification and my agreement are required. My voice mail and email are always on; there is no excuse for not contacting me prior to missing an exam

Late Policy:
Late homework will not be accepted. The lowest two scores in your homework category will be dropped.

Excused late work will only be accepted in the case of documented emergency or a documented university sanctioned absence from class (examples: student teaching in the education program, university representation in a music presentation, etc.). Prior notification and my agreement are required. Ordinary illness of one or two class days does not count as a documented emergency, even if you have a note from a doctor.

Reading the Text:
You will be expected to carefully and completely read each (assigned) section in your textbook. It is a good idea to briefly read the assigned section before class and then to carefully read the section before you start your homework. Most students find it very helpful to write out the examples in the text as well as to just read the examples. If you carefully write out the examples and work out all of the steps you will find that you have a deeper understanding of the material. Writing out the examples is also a successful technique for pinpointing exactly where you become confused on a problem that you do not understand. I encourage you to ask questions about the examples presented in the book. You may ask questions about the text both in class and during office hours.

Course Notebook:
File all of your course materials in your course notebook. For your notebook please use a large 3 ring binder divided into at least the following, clearly labeled, sections. You will need a well-organized notebook while studying for class exams.

1. Course Paperwork (syllabus, schedule notes, etc.)
2. Class Notes and Activities
3. Homework (you may wish to divide this in several sections)
4. Exams

WOU email account:
All official university and class business and announcements will be directed to your WOU student email account. If you do not regularly check this account, please log in to this account and FORWARD your WOU email to an account that you do regularly access. Use the Options → Mail → Local Account → Forwarding path.

Time spent on Math 212 outside of class:
It is a standard academic rule of thumb to spend two to three hours out of class for every hour in class while studying mathematics or science. This is a 200 level mathematics course and the expectation is that you will spend 8 to 12 hours per week outside of class studying and working on the content of Math 212. Set up a regular schedule for yourself and stick with it. Success in mathematics is often directly linked to effort and regular practice

Appropriate Classroom Behavior: You are ultimately responsible for your own attendance and performance. It is expected that electronic devices such as cell phones will be turned off during class. Proscribed Conduct for all students is described in the University Catalog.

Incomplete Policy: An Incomplete can only be granted for a student who is passing a class and has a documented emergency that prevents them from completing a small component of the course.

Learning Disabilities: If you have a documented learning disability, please talk to me during the first few days of class; I will be more than happy to accommodate you in any way that I can. If you have a documented disability that requires academic accommodations or auxiliary aids at Western Oregon University, please contact the Office of Disability Services (ODS). ODS is located in the APSC, Room 405, Phone 503-838-8250 V/TTY or email at ODS@wou.edu.

Veterans and Active Military Personnel: Veterans and Active Military Personnel with special circumstances are welcome and encouraged to communicate these, in advance if possible, to the instructor.