Syllabus
“Number Systems in Elementary Mathematics”
Fall, 2013

Course: Math 210, Section 01
Location: EBA 254
Times: T&TH, 9:30 – 10:45 am

Instructor: Raymond LaRochelle  Office: GMCS 506
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Course Catalog Description: This class covers the topics of number sense, operation concepts, estimation, mental arithmetic, algorithms, problem solving, whole, decimal, and rational numbers, ratios, and number theory.

Philosophy: The first course of a series of four courses, Math 210 starts off by challenging you to take a deeper and more complete look at arithmetic. You will be asked to rethink the way you view mathematical ideas, reasons, and relationships. Although calculations are important, there will be a much deeper emphasis on the underlying concepts (i.e. the “big ideas”) and how they relate to each other. You will constantly be asked to justify your work. Remember this! When justifying your answers, there is a difference between simply listing steps and explaining your answer.

Learning Outcomes:
1. Solve mathematics problems using quantitative analysis, recognizing quantities and relationships.
2. Understand place value numeration systems–convert to and operate in bases other than base ten.
3. Understand and be able to explain the algorithms for operating on rational numbers.
4. Understand the importance of the referent unit.
5. Understand the different meanings and different representations for rational numbers, and be able to change from one representation to another.
6. Understand that quantities can be compared multiplicatively or additively depending on the situation. Also, to be able to recognize whether the situation is additive or multiplicative and respond appropriately.

Participation: I highly encourage you to use the group work to challenge each other, explain yourself to others, and explore alternative methods. This includes asking questions, offering personal insights, listening to your peers, etc. One of the goals of the course is to get you to a level of understanding where you can have meaningful conversations with your peers (and eventually your students) about the concepts and applications of the math, so it is important for you to practice talking about math in your groups.
Learning Exercises: Learning exercises will be assigned after each class. They will be turned in the following week (on Wednesday) for a grade. I grade based on completeness and correctness, so if you are having trouble it is important for you to seek help. Assigned learning exercises will be posted on the Blackboard website along with the due date. It is your responsibility to check the blackboard website. I expect a high level of care with the homework, such as:

1. Write out the question for each problem assigned
2. Write answers in a clear, concise, and grammatically correct way
3. Box solutions to problems
4. Staple homework assignments together

Lastly, don’t skip problems. This is a huge pet peeve of mine. If you skip 4 or more problems (or parts of problems) on a given week’s homework, I will give you a 0. As for late homework, it will be accepted, but for every day it is late you will lose 20% on the previous week. After 5 days, this becomes a 0.

Learning Curves: These are a series of questions completed online at http://courses.bfwpub.com/yourmathportal/, under the tab “learning curves”. These will be assigned when we finish a chapter. You have one week to complete them, at your convenience.

Exams: Each of the three exams will be held in class during regular meeting hours. Make up exams will only be allowed with a university excused absence or prior approval with the instructor. Exam dates will be posted on the Blackboard website a week before they happen. Tentatively, exam 1 will be a week after we finish chapter 2, exam 2 will be on a week after we finish chapter 5, and exam 3 will be a week after we finish chapter 7. However, it is still your responsibility to check the Blackboard website.

The final exam, a department final developed by a committee including 210 instructors and the course coordinator, will be held on Saturday, May 10 from 1:00 – 3:00 pm. Past finals have included True/False and free-answer questions. Your final will be scored by me in a manner consistent with the scoring of quizzes and exams.

Attendance: Since this class is heavily based on group work, attending class is mandatory. I will take attendance every day. In an emergency, you must send me an email before class starts letting me know of the circumstances. Otherwise I will count it as an unexcused absence. Every three unexcused absences results in a 10% drop in your total grade.

Grading: Learning Curves: 10%
Learning Exercises: 30%
Exams (3): 30%
Final: 30%

Religious Observances: By the end of the second week of classes, students should notify the instructor of planned absences for religious observances. Instructors shall reasonably
accommodate students who notify them in advance of planned absences for religious observances.

**Grading Scale:**

- 93% - 100% = A
- 83% - 86% = B
- 73% - 76% = C
- 63% - 66% = D
- 90% - 92% = A-
- 80% - 82% = B-
- 70% - 72% = C-
- 60% - 62% = D-
- 87% - 89% = B+
- 77% - 79% = C+
- 67% - 69% = D+
- 59% and below = F

**Accommodations:** If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Disability Services. Your cooperation is appreciated.

**Statement on Cheating and Plagiarism:** Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one’s grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term ‘cheating’ not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one’s own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the University. For more information on the University’s policy regarding cheating and plagiarism, refer to the Schedule of Courses (‘Legal Notices on Cheating and Plagiarism’) or the University Catalog (‘Policies and Regulations’).

**To Succeed:**

- Attend all classes
- Participate in activities, discussions and learning
- Ask questions regularly
- Utilize office hours
- Seek help early
- Complete all assignments on time
- Take responsibility for your own learning

*Syllabus is Subject to Change: This syllabus is subject to change in the event of extenuating circumstances. If you are absent from class, it is your responsibility to check on announcements made while you were absent*

**Office Hours Availability:**

Monday: All day  Wednesday: 8:00 a.m. – 2:00 p.m.  Friday: All day