Syllabus for Math ~~0810~~ 0970

Pathway to Contemporary Mathematics

Fall Semester 2014

Disclaimer: The instructor reserves the right to adjust this course syllabus as needed.

Instructor: **Office:**.
Phone: **E-mail:**

Course Title: Pathway to Contemporary Mathematics
Course Number: Math ~~0810~~ 0970
Course Credit Hours: 4
Prerequisite: Math 0950 with a grade of C or better, or Accuplacer score in the Elementary Algebra domain.

Required Materials: *Math Lit*, Almy and Foes, Pearson, 2013 (provided for use- please do not write in the book)
MyMathLab access code (provided by Pearson)
Scientific Calculator
Binder and loose-leaf paper for homework

Catalog Description:
This course serves as a prerequisite for only Math 1030 Contemporary Mathematics. The course integrates geometry, numeracy, proportional reasoning, algebraic reasoning, and topics in statistics and functions (linear, quadratic, rational, radical, exponential and logarithmic) using modeling, problem solving, and critical thinking. Prerequisite: Math 950 or placement equivalent to Math 0990. This course cannot be transferred.

Grading Your course grade will be based on online homework and quizzes, written quizzes, focus problems, exams, and a final exam.

4 Exams	400
Online Quizzes, videos & Assignments	100
Book Homework	100
Attendance	40
Focus Problems	60
Final Exam	200
Total	900 Points

Exams
The course is divided into four units called cycles, and there will be a test at the end of each cycle. No test grades will be dropped. The final exam will be comprehensive and will not be dropped.

Any form of academic dishonesty during a test will result in a grade of 0 on that test.

All testing center rules apply. See rules here http://www.weber.edu/TestingCenter/policies.html

Homework:
Homework has two components.

1) We will be using MyMathLab as a resource for online homework this semester. Homework assignment deadlines will be available online. You should try to work a little ahead of the deadlines in case you have trouble and need to get help on an assignment. It is in your best interest to complete each section of homework as soon as we finish that section in class. Any problems completed after the due date will only be worth half credit. No extensions of the due dates will be given.

2) The most important part of the homework is the problems in the packet. These should be completed as soon as you finish the MML piece. The homework in the book with take your thinking deeper into what is going on and why you are doing what you do. Once you complete your homework from the packet, you

will need to correct your homework using the answers in MML under the tab "Worktext homework answers." Make sure you have a thorough understanding of these problems. If you don't understand them, it is your responsibility to either meet with your teacher or with a tutor.

Book assignments will be collected regularly.

Quizzes and Assignments

There will be frequent quizzes and activities online.

In MML, there is a quiz over prerequisite material. You will have two opportunities to take this quiz. You will take the quiz first, and then complete homework assignments based on your performance. After completing the homework, you may take the quiz again to improve your score. If you take the quiz twice, your highest score will count.

There will only **be one attempt** allowed for all other quizzes in MML.

Quizzes **must be taken by the due date**. No extensions will be given on the quizzes.

Additionally, there will be quizzes each unit in MML and some in class on paper.

Focus Problems

Each unit will begin with a focus problem. A group solution to the focus problem will be turned in at the end of each cycle. They will each be worth 25 points. No late focus problem solutions will be accepted.

Make-up Policy

Make-up exams will be given only in **very rare cases and at my discretion**. If I decide that your situation warrants a make-up exam, the following conditions will apply:

1. You will be allowed a maximum of one make-up exam for the semester.
2. You will be required to show written verification that makes it clear you were unable to take the exam at the scheduled time. For example, a funeral program should be submitted for a death. Forgetting about the exam, or being on vacation, **does not** qualify.
3. You must notify me before the exam date to make arrangements for the makeup exam.
4. Make-up exams may be considerably different than the regular exam.

Attendance/Participation

Excellent attendance is crucial to your success in this course and necessary for groups to operate well. You are responsible for all material covered during a class period for which you are absent, including assignments or schedule changes. Attendance of the entire class meeting is expected. It is highly unlikely that you will get the grade you want without attending class and making a daily effort to learn the material. If you are absent for a significant number of classes, or for several classes in a row, you may be dropped from the course. Please notify me as soon as possible if an illness or other personal situation results in your missing several class meetings.

You must have a minimum of 80% attendance or you may be given a UW for the course.

Excused absence with doctor's note only. Counts like a tardy (1/3 attendance deduction)

- **Be present from the beginning to the end of the period. More than 10 minutes late or leaving early counts as an absence.**
- **Participate in all activities.**
- **Refrain from texting or other off-task behavior.**

Students who miss more than 3 class periods in a cycle will be required to complete the focus problem on their own.

Students who leave early, arrive more than 5 minutes late, or fail to participate will be counted as absent.

Accommodations

Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Services Center, 626-6413. SSD can also arrange to provide course materials (including the

syllabus) in alternate formats if necessary.

Communication

The best way to contact me is by email. You must e-mail me from your **official Weber e-mail**. Leaving a message on voicemail is often the worst way. I will try to respond to email messages within 1 business day. If you email on a Friday, you might receive a response over the weekend but you should not count on that. If it has been at least 24 hours and you have not received a reply, you should try sending another message. If you want me to respond to your email, you should follow these guidelines:

- Include your first and last name.
- State the course you are taking (i.e. Math 0810 MWF 10:30).
- Be reasonable. Do not email at 1 a.m. and then again at 6 a.m. because you have not yet received a response. Also, do not send panicked emails at 11:30 p.m., expecting a response before the midnight deadline. Professors do actually sleep. ☺
- **Please check your email** for a response before asking if your professor has responded. **Please check your Weber e-mail regularly or forward your Weber e-mail to the e-mail you regularly check.** When your instructor sends a message to you or the class, it will go to that email address.

Classroom Behavior and Etiquette

- Arrive on time for class and do not leave early. When a student walks in late or leaves early, it disrupts the entire class. If the class is disrupted by students arriving late, I will lock the door when class begins and late students will not be allowed to enter.
- Be respectful of everyone's ideas.
- Turn cell phones off before entering the classroom. Do not use your phone during class for calls or text messaging. (anyone caught by me or another student using their cell phone or other electronic devices for non-class related activities will get to stand up and sing "I'm a little tea pot" complete with actions, for the classes entertainment).
- Please be respectful of others in the class, including the instructor. **Chatting with classmates during lectures is not appropriate.** You may not need the information, but other students do.
- You may have drinks in class, but eating during class is not appropriate.

If students choose to engage in behavior that is contrary to these policies or other behavior which disrupts the class, they will be asked to leave. If this occurs repeatedly, they will be removed from the course.

Tips for Success

Advice from students

- Don't stop until you understand. ❖ Work well with others and speak up and ask questions. ❖ You need to do all the book hw given, not just the MML hw. ❖ Finish all MML hw until you get 100% because they're really not that hard and do help your grade. ❖ Spend time on the hw. Do not just fly through it. ❖ You have to work harder in math class than all of your other classes and this class takes a lot of your time. ❖ Do things repeatedly until you get it.
- Always pay attention, make every class, do every homework assignment. ❖ Ask questions early in the cycle.
- It is sometimes easier if you understand why the math works instead of just memorizing things. ❖ Keeping up with homework pays off in more than 1 way. ❖ Do well on the focus problems because they are worth as much as a test.

Advice from your instructor

- **Study 10 – 12 hours per week outside of class**
- Attend class regularly and be on time.
- Do all homework assigned immediately after class. It may be necessary to do more practice than the homework problems assigned.
- LOOK at the BOOK!
- Come to my office and ask for help.
- You must master each concept in order to pass the final.
- Never skip class.
- **Get help as soon as you need it.**
- Spend as much time on paper homework as MML homework.
- Find a way to get along with your group and pull your weight.

Your instructor is responsible for providing materials and activities, being helpful and patient, prepared and organized. The rest is up to you. Learning is like building a muscle…no one can do it for you!

Grading Scale

If you do not take the final, it is a UW for the course.

A	93 – 100	B	83 – 87	C	70 – 75	D	58 - 62
A–	90 – 93	B–	80 – 83	C–	65 – 70	D–	55 - 58
B+	87 – 90	C+	75 – 80	D+	62 – 65	E	0 - 55

Math 0810 - Spring 2014 Schedule

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Cycle one	Jan. 6 1.2, 1.4	7 1.1, 1.5	8 1.6	9	10 1.7
	13 1.8	14 1.9	15 1.10, 1.11	16	17 1.12, 1.13
	20 No school	21 1.14,	22 1.15	23	24 1.16
	27 1.17 *Last day to cancel*	28 1.18	29 1.19,	30	31 1.23 Focus problem due
Cycle two	Feb. 3 Cycle 1 wrap up	4 Exam 1 in testing center till Thursday. 2.2 on own. 2.3	5 2.4	6	7 2.5
	10 2.6	11 2.7	12 2.9	13	14 2.11
	17 No school	18 2.12	19 2.13	20	21 2.14
	24 2.17 Cycle 2 wrap up	25	26 3.1 (with group outside of class) 3.4	27 Exam 2 in testing center till Monday.	28 3.6 Read Article on 309-310 and answer questions 1-4 on pg 308 before next class.
Cycle three	March 3 3.7	4 (3.8 with group outside of class) 3.9	5 3.10	6	7 3.11
	10 Spring Break	11	12	13	14
	17 3.12	18 Cycle 3 wrap up Focus problem due	19 Exam 3 in testing center till Thursday. 4.1, 4.2	20	21 4.3
Cycle	24 4.4	25 4.6 Last day Cr/NC, Au, W	26 4.7, 4.8	27	28 4.8 cont.
	31 4.9	April 1 4.11	2 4.11 cont.	3	4 4.13, 4.15, 4.16

	7 Cycle 4 wrap up Focus Problem due	8 Exam 3 in testing center till Thursday. Exponents and logs.	9 Exponents and logs.	10	11 Exponents and logs.
	14 Exponents and logs.	15 Exponents and logs. (quiz)	16 Final review	17	18 Final review.
	21 Optional review	22	23 Final Exam 7:00-8:50 AM	24	25

** This is a tentative schedule only. You will be informed of any changes*

Course Objectives:

1. Apply the concepts of numeracy in multiple contexts.
2. Recognize proportional relationships and use proportional reasoning to solve problems.
3. Use the language of algebra to write relationships involving variables, interpret those relationships and solve problems.
4. Interpret and move flexibly between multiple formats including graphs, tables, equations, and words.
5. Demonstrate student success skills including perseverance, time management, and appropriate use of resources.
6. Develop the ability to think critically and solve problems in a variety of contexts.

Course Concepts:

Numeracy

- Common operations on numbers in words and symbols
- The use of magnitude in the contexts of place values, fractions, and numbers written in scientific notation
- Estimation skills
- Solve problems involving quantities and rates
- Measurement
- Mathematical properties and mathematical summaries of data
- Decision-making using data from line graphs, bar graphs, and charts.

Proportional Reasoning

- Proportional relationships found in verbal and numeric representations
- Comparison of proportional relationships
- Solving real world problems with proportional relationships

Algebraic Reasoning

- Use of variables to represent quantities or attributes
- The effect of changes in variable values on an algebraic relationship
- Problem solving with equations and inequalities representing relationships involving one or more unknown quantities

Functions

- Translation of problems into a mathematical representation and vice versa
- Behavior of common types of functions
- Linear models
- Important characteristics of various functions
- Rate of change

Student Success Skills

- Develop written and verbal skills in relation to course content
- Research using print and online resources
- Apply time management and goal setting techniques

Mathematical Success Skills

- Develop the ability to use mathematical skills in diverse scenarios and contexts

- Use technology appropriately including calculators and computers
- Demonstrate critical thinking by analyzing ideas, patterns and principles
- Demonstrate flexibility with mathematics through various contexts, modes of technology, and presentations of information (tables, graphs, words, equations)
- Demonstrate and explain skills needed in studying for and taking exams