MATH 092 (CRN:) Foundations of Mathematical Reasoning

| Instructor Information: | Course Information: |
|-------------------------|---|
| Name: | Course Websites: <u>http://www.mymathlab.com;</u> http://mymc.montgomerycollege.edu and click on Blackboard |
| Email: | on top right corner. |
| Phone: | Classroom: |
| Office: | Class meeting days/time. |
| | Course start/end dates: |
| My Office Hours: | Last day for a refund: |
| | Last day to drop the course without a grade change: |
| | Last day to drop the course with a W: |
| | Last day of lecture – |
| | <u>Final exam –</u> |
| | |

Textbook: (Not required to purchase hard copy unless students want to.)

Foundations of Mathematical Reasoning 1e, Author(s): Dana Center, University of Texas Austin Textbook ISBN-13: 9780134192499.

Course Description:

Development of algebraic and numerical skills in a context of applications and problem-solving skills and to prepare students for a mathematics foundation course. Topics include quantitative relationships, patterning and algebraic reasoning, functional reasoning, probabilistic and statistical reasoning, incorporating quantitative communication skills and technology. This course does not satisfy the prerequisite for MATH130, MATH 150, or MATH 165. Not intended for students who have a grade of C or better in MATH 093, MATH 096, or their equivalent. PREREQUISITE(S): A grade of an H or better in MATH 080, completion or appropriate score on the mathematics assessment test; or consent of department. Assessment Level(s): READ 120. Three hours each week. THREE EQUIVALENT CREDIT HOURS. NOT APPLICABLE TO A DEGREE OR CERTIFICATE. MAY NOT BE USED TO SATISFY DEGREE REQUIREMENTS. NOT INCLUDED IN GPA CALCULATION. 3.000 Billing Hours.

Student Materials Used in this class:

MyMathLab (required to purchase): Electronic version of the course textbook and other course materials and homeworks and quizzes will be made available online using this software. The MyMathLab Student Access Code comes packaged with the textbook or it can be purchased at the bookstore or online at http://www.mymathlab.com. (See the last page of this Syllabus for detailed instructions on how to register on MyMathLab.)

Student Notebook: Students are expected to maintain a notebook for this course to show all work on homework assignments and any quizzes. The personal notebook should contain notes and organized work from each section's VIDEO/TEXT/POWERPOINT assignments and homework assignments. I am here to help you learn how to learn!

Grading Policy:

The final grade will consist of:

Assignments and Quizzes \rightarrow 25%: Online and written homeworks and quizzes are assigned. Occasionally, there will be in-class presentations on selected topics from the textbook. (Also, daily classroom attendance & participation by the students is recorded.)

Lesson tests \rightarrow 50%: To be taken online on MyMathLab website. We will alternate between proctored and non-proctored lesson tests.

Final exam \rightarrow 25%: Comprehensive exam (_______ in the same classroom.)

A: 90 – 100% B: 80 – 89% C: 70 – 79% U: < 70%

General Policies:

- 1. Attendance: Attendance will be taken at every class meeting and is not considered part of the student's grade. However, poor attendance has been shown to directly contribute to many students' failure in the course. In the case of excessive absences, you may be dropped from the class.
- 2. Make-up Exams: There will be NO make-up tests unless you meet the following criteria:
 - Notified me before the test is administered in class AND made alternate arrangements to take the test at a different time.
 - Maintained good class record which includes attendance, on-time submission of homeworks, and quizzes.

In case of medical emergency which does not permit the student to notify me ahead of time about his/her absence from test, provide proper documentation (i.e., medical notes etc.) supporting the reason for missing the test. In such cases, the final exam grade will replace the missed test grade following a good class record.

3. Student Expectations:

- > Cell phones and other electronics are to be turned OFF during lecture.
- \blacktriangleright Get to class on time.
- ➢ Go over the necessary lesson plan at home and take notes and come prepared to class to ask questions and/or present material in class.
- ➢ Get notes from your classmates if you miss a class.

- Assignments are to be submitted on the due date at the required time. Unless proper documentation is provided for not being able to complete it, the student gets a zero for any late work.
- 4. Academic Dishonesty: Cheating or Plagiarism is defined as submitting work under your name that was not done entirely by you. Cheating on homework, quiz, or exams will lead to a grade of F in the course. Please refer to the Student Code of Conduct on Montgomery college website.
- 5. Academic Regulations & Student Code of Conduct: All MC students are expected to follow "Academic Regulations" & "Student Code of Conduct" as described in the MC <u>Student Handbook</u>. These regulations and guidelines can be found at: <u>https://cms.montgomerycollege.edu/pnp/</u>

6. Help outside classroom:

Below is the location, contact information and hours of three campuses' math resource centers, where students can get tutoring and other resources:

- Rockville Campus, Ackerman Learning Center, Science West 100, 240-567-5200. Hours: Mon. – Thurs. 8am – 8pm, Fri. 8am – 4pm, Sat. 10am – 3pm. <u>http://www.montgomerycollege.edu/Departments/mathscrv/</u>
- Germantown Campus, Math Accounting Physics Engineering Learning (MAPEL) Center, HT229, 240-567-1947. Hours: Mon. Thurs. 9am 9pm, Fri. 9am 5pm, Sat. 11am 2pm. http://cms.montgomerycollege.edu/edu/department2.aspx?id=18038
- Takoma Park / Silver Spring Campus, Science Learning Center, SN 101/102, 240-567-1427. Hours: Mon. – Thurs. 8:30am – 7pm, Fri. 8:30am – 6pm, Sat. 12pm – 4pm. <u>http://www.montgomerycollege.edu/Departments/mslc/</u>
- 7. Accommodations for Students with Disabilities: Any student who may need an accommodation due to a disability, please make an appointment to see me during my office hour. A letter from Disability Support Services (CB122; 240-567-5058) authorizing your accommodations will be needed. Any student who may need assistance in the event of an emergency evacuation must identify to the Disability Support Services Office; guidelines for emergency evacuations for individuals with disabilities are found at: www.montgomerycollege.edu/dss/evacprocedures.htm.
- Combat2College: If you are a veteran or on active or reserve status and you are interested in information regarding opportunities, programs and/or services, please visit the Combat2College website at www.montgomerycollege.edu/combat2college/ and/or contact Joanna Starling 240-567-7103/SV103 or Joanna.starling@montgomerycollege.edu.
- 9. Cancellation of classes: In the event that I have to cancel class, I will make arrangements for someone to get that message to the classroom. Please leave the classroom quietly so classes next door are not disturbed and check your MC email to get further instructions from me.
- 10. Inclement Weather: If inclement weather forces the College or any campus or College facility to suspend classes or close, public service announcements will be provided to local radio and television stations as early as possible. You may also call MC at 240-567-5000 or check the college website www.montgomerycollege.edu to verify MC school closings. Any exams planned on days classes are suspended will be administered at the first class meeting once classes resume. Note that the Montgomery County Public Schools (MCPS) and Montgomery College do not follow the same school closing procedures.

E-mail Communication Statement:

MC student e-mail is an official means of communication for Montgomery College. Students are responsible for information and announcements sent via MC e-mail, and it is expected that students check their student e-mail regularly. When e-mailing an instructor, it is expected that students use their MC student e-mail account.

Course Outcomes:

Can be found at the following website:

IV. Common Course Student Learning Outcomes

Outcome #1

Use number concepts to describe quantitative relationships in a variety of contexts.

Outcome #2

Communicate, interpret and explain mathematical concepts using appropriate symbolic notation and vocabulary.

Outcome #3

Manipulate and solve equations, using appropriate mathematical techniques and technology.

Outcome #4

Solve word problems in various contexts and interpret results by using mathematical concepts with appropriate terms and units.

Outcome #5

Solve systems of two equations graphically and algebraically, and interpret the results in an appropriate manner.

Outcome #6

Recognize whether a linear or non-linear mathematical model is appropriate and use the appropriate model to represent the relationships between variables.

Outcome #7

Summarize and interpret data using graphs, tables, technology, and statistics (including measures of central tendencies and dispersion).

Outcome #8

Collect data and use information from the data to make reasonable conclusions by employing appropriate numerical and algebraic concepts such as fractions, ratios, decimals, and percent's.

MATH 092 TENTATIVE SCHEDULE -

| Week | Week dates | Chapter Coverage |
|------|------------|--|
| # 1 | | Introduction to Course. Syllabus and course discussions. Study Lesson 1 |
| # 2 | | Study Lesson 2 |
| # 3 | | TEST1 on Lessons 1 & 2; Start Lesson 3 |
| # 4 | | Study Lesson 4 & 5 |
| # 5 | | TEST2 on Lessons 3, 4 & 5 |
| # 6 | | Start Lesson 6 |
| # 7 | | Study Lesson 7 & 8 |
| # 8 | | TEST3 on Lessons 6, 7 & 8 |
| # 9 | | Start Lesson 9 & 10 |
| # 10 | | Study Lesson 10 & 11 |
| # 11 | | TEST4 on Lessons 9, 10 & 11; |
| # 12 | | Study Lesson 12 (parts A & B) |
| # 13 | | Study Lesson 18 (parts A & B) |
| # 14 | | TEST5 on Lessons 12, 18; Final Exam Review |
| # 15 | | Final EXAM 12:30 pm – 2:30 pm |