

MIDDLESEX COUNTY COLLEGE
EDISON, NEW JERSEY

MATHEMATICS DEPARTMENT

Date: August, 2009

Course Title: Basic Mathematics (Pt. A)

Course No. MAT 010A

Class Hours: 3

Laboratory Hours: 0

Credit Hours: 0

Department Head Approval: _____
Maria DeLucia, Ph.D.

Dean Approval: _____
Reginald Luke, Ph.D.

Prerequisite: Appropriate score on the College placement test.

Textbook of Course:

Author: Miller, O'Neill and Hyde

Title: Basic College Mathematics, 2e

Publisher: McGraw-Hill

Software packaged with the text

The textbook for MAT 010A comes packaged with access codes to two different computer software systems. The first is *ALEKS* and the second is *MathZone*. For this semester, students will be **required to use the ALEKS program for the course**. The *ALEKS* code that students have with their text for this semester will also entitle them to use *ALEKS* for MAT 010B, the second part of MAT 010 that they will take during the spring semester. The *MathZone* software is another option that students may use to practice their skills. *MathZone* use will not be required in this class.

Students should be told the first day of class that their textbook comes packaged with access codes for a full year of ALEKS (for use in Mat- 010A and Mat- 010B) and for Math Zone. Many students inadvertently throw out what seems like unimportant material and keep only the text.

Catalog Course Description:

This course is the first half of a two-semester course that focuses on computational skills and problem solving. Topics include addition, subtraction, multiplication, and division of whole numbers, fractions and decimals. Applications are included as well. Students who successfully complete this course must pass Mat- 010B in order to fulfill the Mat- 010 requirement.

Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.

Objectives of the Course:

Students will demonstrate through quizzes, examinations, and homework the ability to:

1. add, subtract, multiply, and divide whole numbers
2. solve word problems with whole numbers
3. name common fractions in lower and higher terms
4. put common fractions in ascending order
5. add, subtract, multiply, and divide common fractions
6. solve word problems with common fractions
7. put decimal fractions in ascending order
8. add, subtract, multiply, and divided decimal fractions
9. solve word problems with decimals
10. find the mean, median and mode of a set of numbers

Grading Criteria

- a. In order for a student to be considered remediated in MAT 010A, **a student has to achieve a minimum grade of 'C' in the course.** Please make sure that your students are aware of this at the beginning of the semester. This information should be in writing for the students in the course outline that you will be giving them on the first day of class. Since there are some students who will miss the first few sessions, it would be a good idea to mention these guidelines several times throughout the semester.
- b. **The final grade is comprised of four parts:**

❖ Aleks Pie	15%
❖ Aleks quizzes (required) and in-class quizzes	15%
❖ Tests	40%
❖ Cumulative Final Exam*	30%

Grades should be assigned as follows:

92%-100%	A	77%-78%	C+
89%-91%	A-	70%-76%	C
87%-88%	B+	60%-69%	D
82%-86%	B	below 60%	F
79%-81%	B-		

Chapter Tests

There are chapter tests for you to administer to your classes available in Center 2. There are a total of four tests. There is one form of each test available. If you want to create another form, please use the standardized copy as a guideline. Since many sections use the tests, please **do not** allow students to take the tests home. Once you review the test in class, please collect the tests.

*ALEKS

The student textbook comes with an access code to Aleks, a program that students will be required to use. You will receive a separate instructor guide and student guides to give to your students to fully explain this program and the registration process. There will be workshops held during the week before the semester begins to familiarize you with Aleks, explain how it will be incorporated into the course and to give you an opportunity to bring up questions or concerns.

MathZone

The student textbook also comes packaged with an access code to an excellent multimedia program called *MathZone*. It provides the student with the online version of the textbook (e-book), videos of lessons on selected course objectives, step-by-step solutions to exercises, and hundreds of tracked tutorial exercises. **Because ALEKS will be compulsory for your class Math Zone should be optional as a resource for students practicing on their own.**

Note:

As an instructor, you will be registered for ALEKS. You will be given a login and password for each and you will receive a course code so that your students can register for both programs. Your students will be able to work on MathZone with or without a course code. However, if you want to see the work they are doing in MathZone you will need to be registered and receive a course code. If you would like this option, please let Susan Shulman know and a course code will be generated for you.

Homework

Most teachers give homework assigned from the textbook after each class meeting and take questions on those problems during the next class session. Some instructors collect and grade textbook homework, but due to time constraints, many do not. Whether textbook assignments are graded or not, students should be made aware that doing homework is of the utmost importance in order to solidify learned skills and to provide a strong foundation upon which they can learn new material.

Because students will be working on ALEKS, you will probably want to streamline the homework from the text so that they are not overwhelmed with work.

The *MathZone* software mentioned above is another option that instructors may use for homework assignments. Test reviews and worksheets on topics that many students find difficult have been generated for use by your students. Because *ALEKS* is required, it is assumed that most students will not have time to work on *MathZone* as well.

Quizzes

Aleks mastery quizzes online are required of your students. There are also practice quizzes that may be taken as many times as the student would like, with the mastery quizzes being taken only twice. In addition to the Aleks quizzes, you will most likely give your own in-class quizzes. The mean of the Aleks mastery quizzes and your own quizzes should make up 15% of the final grade.

Quizzes serve many purposes during the semester. They are a fast way for you and your students to assess their understanding of the material presented in between tests. Because there is no formal attendance policy at the College, many instructors give quizzes very often as a way to motivate student attendance.

Attendance

There is no official attendance policy. However, students should be made aware of how important attendance is for their success. Some instructors build in extra quizzes to encourage good attendance. Whatever you choose, some students will have attendance problems and the issue needs to be addressed.

Extra Help

Students should be informed where they can get help if they have difficulty with the subject matter. Some suggestions are listed below:

1. If you are a full-time instructor, students should be encouraged to come for help during your office hours.
2. Students can get tutoring help at two different locations on campus.
 - a. The Developmental Mathematics Lab/Tutoring Center in MH 142 is available for any developmental mathematics student. The lab is well-equipped with very competent tutors and computers where students can practice their skills. It should be made clear to the students that the tutors are not private tutors and that they must be shared among all students in the lab. Also, it is always best if a student comes prepared with a specific topic or problem that is causing difficulty. The schedule for the MH 142 lab will be handed out at the beginning of the semester and posted on the window of the lab for your students' convenience.
 - b. The Tutoring Center in JL is open many hours during the day and evening. Mathematics faculty volunteer during selected hours and peer tutors are available to answer students' questions. A schedule of hours for the JL Tutoring Center will also be available at the beginning of the semester.
 - c. Students should be encouraged to work in study groups. This will be fostered if you allow students to work in groups, at times, during your class sessions. Review days are perfect ways to have your students work in groups. Also, ask Susan Shulman about projects that are available in Center 2 on given topics. These projects lend themselves to cooperative learning in the classroom and encourage group work, while sometimes raising the motivation level. The projects can also be found the Faculty Orientation Manual that is online at:
<http://www.middlesexcc.edu/academi/mat/> or by looking at a hard copy in Center 2.

Final Examination

A **standardized** final exam will be available for you to administer to your classes. MAT 010A classes will take the final exam on the last meeting of the class. There are special final days available at the end of the semester if you would prefer to use one of those for the final exam. It would be a good idea to inform your students of that possibility so that they do not make plans for vacation during days that they might still have an obligation to the course. If you want to administer the final exam during special final days you must speak to Dr. DeLucia well in advance. Information on picking up your final exams will be sent to you toward the end of the semester.

IMPORTANT NOTE:

Students must score at least a 60% on the final exam to pass the course with a grade of 'C' or better.

End-Term Summary

A summary of your students' performance is needed at the end of the semester. You will receive a form to fill out at the end of the semester.

The following is a suggested course outline for MAT 010A for classes meeting twice a week. These are suggested guidelines for you to follow and you might want to make adjustments to fit your own style.

<u>Day #</u>	<u>Material Covered</u>	
1	Introduction 1.1	Guide for ALEKS Students work on Practice Quiz #1 and take Mastery Quiz #1 by end of 1.3
2	1.2 - 1.3	
3	1.5-1.6	Students work on Practice Quiz #2 and take Mastery Quiz #2 after 1.5 and 1.6
4	1.4	
5	1.7	Students work on Practice Quiz #3 and take Mastery Quiz #3 by end of Chapter 1
6	1.8	
7	Test #1 Review (Chapter 1)	Mastery Quizzes #1,2, &3 should be completed before Test #1 is administered
8	TEST #1 (Chapter 1)	
9	2.1-2.2	Students work on Practice Quiz #4 and take Mastery Quiz #4 by the end of 2.3
10	2.3-2.4	
11	2.5	Students work on Practice Quiz #5 and take Mastery Quiz #5 by the end of 2.5
12	2.6	Students work on Practice Quiz #6 and take Mastery Quiz #6 by the end of 2.6

13	Test #2 Review (Chapter 2)	
14	TEST #2 (Chapter 2)	Mastery Quizzes #4, 5 and 6 should be completed before Test #2 is administered
15	3.1-3.2	Students work on Practice Quiz #7 and
16	more 3.2 and 3.3	take Mastery Quiz #7 by the end of 3.3
17	3.4	Students work on Practice Quiz #8 and
18	3.5	take Mastery Quiz #8 by the end of 3.5
19	Test #3 Review (Chapter 3)	
20	TEST #3 (Chapter 3)	Mastery Quizzes 7 & 8 should be completed before Test #3 is administered
21	4.1-4.2	Students work on Practice Quiz #9 and
22	4.3-4.4	take Mastery Quiz #9 by the end of 4.3
23	4.5 - 4.6	Students work on Practice Quiz #10 and
24	9.4	take Mastery Quiz after completing 9.4
25	Test #4 Review (Chapter 4 and 9.4)	
26	TEST #4 (Chapter 4 and 9.4)	Mastery Quizzes #9 and #10 should be completed before Test #4 is administered
27	Final Exam Review	
28	Final Exam (There are special final days after the last day of class that you can use to administer the final exam. If you choose to do this, please speak to Dr. DeLucia and give your students enough notice as to when the final exam will be so that they can adjust their schedules).	

****Trouble Shooting**

A Mat-010A Final Exam item analysis was performed during the spring 2009 semester to help us be more aware of the strengths and weaknesses of our students. You will receive a copy of this analysis at the beginning of the semester. Please note the topics that cause most problems and make sure to emphasize while teaching the curriculum.

CHECK LIST

The following are things you will need throughout the semester:

1. First Day Needs
 - a. On the first day of class you should give each student a course outline with pertinent information (course title, your name, how they can reach you, day-to-day outline, grading criteria, cheating policy and anything else you think they should know).
 - b. When you are registered as an instructor for Aleks (this will be done for you), a course code will be generated. You must give this course code to your students on the first day of class.
2. Throughout the semester you will be receiving memos and directives from various people on campus and in the Department. Please read these carefully and respond to them in a timely fashion.
3. Chapter tests are available for all your students in Center 2. (DO NOT ALLOW STUDENTS TO KEEP THESE)
4. The Final Exam will be ordered for you, packaged for your students and kept in Center 2 until the day you will be administering the final.
5. End term summary forms will be in your mailbox at the end of the semester for you to fill out and return to Susan Shulman.

If you have any questions, please contact Basic Mathematics Coordinator, Susan Shulman at Extension 3734.

e-mail: SShulman@middlesexcc.edu or at smskulman@yahoo.com

Thank you in advance for cooperation.