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RIVIER COLLEGE
MA100D: Mathematics 1
Fall 2006
Mondays & Wednesdays 2:30-3:45 pm, classroom MEM103

Instructor: Dr. Vladimir Riabov, Associate Professor, STH-312
Contact information: Tel: 603-897-8613, E-mail: vriabov@rivier.edu
Office hours: Please let me know whenever you need help. You are invited to stop by my office whenever I am there or make an appointment. My regular hours are Mo 5:15-7:00 pm, Wed 5:15-7:00 pm, and Th 2:00-5:30 pm. Office hours will take place in STH-312. I will also respond to questions via e-mail.

Required textbook and supplement: *Introductory Algebra: A Real World Approach*, 2nd edition, by
        Ignacio Bello, New York: McGraw-Hill, 2006, packaged with Math Zone access.

Required materials:
   o   Notebook paper for taking notes and completing assignments (graph paper is also acceptable and will be useful at times).
   o   Sharpened pencils
   o   Calculator with exponents (x^y, y^x, or ^) and square roots $\sqrt{}$ that displays large numbers in scientific notation. If you plan to take MA112, MA130, or MA165, a graphing calculator such as TI-83 will be required in those courses. MA110 requires a calculator with statistical capabilities.
   o   Access to a computer with web access (use the campus lab if you don't have your own!)
   o   **OPTIONAL: Math Zone account** (Use the login and password [that came with your text] the first time you access it). After the logging in, use the **Student Section Code: FA9-89-5D5**.
   o   Binder or notebook to keep your notes, handouts, quizzes, and tests organized.
   o   Ruler with inches and centimeters.
   o   Small stapler.

Optional supplement: Some texts are packaged with a bilingual DVD for a small extra fee.

Course description: This course is designed for students with little or no background in algebra, as well as students needing a review of basic algebra. The principal objective of the course is to develop and to strengthen the basic skills necessary for subsequent courses. The course does not fulfill the general education mathematics requirement. It is not available for credit to students who have successfully completed a course equivalent to MA 112 or higher.

Course Objectives: A student successfully completing this course should be able to
▪   perform multi-step calculations involving whole numbers, fractions, decimals, and signed numbers.
▪   convert between percentage, decimal, and fractional representation.
▪   identify when two fractions are equivalent.
▪   recall and apply basic geometric formulas for perimeter and area.
▪   translate a verbal problem into mathematical notation and solve the problem.
▪   use proportions, percents, and averaging to solve verbal problems mathematically.
▪   interpret and construct basic relational tables and graphs.
▪   use mathematical strategies to address loosely defined problems.
▪   use variables to represent unknown quantities.

- simplify expressions involving variables, radicals, and/or exponents.
- combine binomial expressions by addition, subtraction, and multiplication.
- solve linear and quadratic equations of one variable.
- work with functional notation.
- graph a linear function and identify its slope and intercepts.
- graph a quadratic function and identify its vertex and intercepts.
- apply his/her mathematical skills to real world problems.
- engage in mathematical thinking, logical reasoning, and mathematical discussions.

Teaching Strategies:
- Review and presentation of arithmetic and algebraic techniques.
- Reinforcement and exploratory activities that engage students in developing and applying skills
- OPTIONAL: Web-generated assignments with immediate feedback
- In class interaction, assignments, and assessment
- Tests and quizzes to measure students' understanding of material covered

Course Requirements:
- Satisfactory completion of **homework assignments**.
- Active participation and engagement in full-class, small-group, and individual activities.
- Regular attendance at class meetings.
- Quizzes and tests.

Tests: October 16, November 8, and December 6, 2006

Final Exam: Comprehensive! FRIDAY, December 15, 2006, 8:00-10:00 am.

Help with math: All students are encouraged to seek help from peer tutoring or the instructor whenever they have questions on a section. The tutors and the instructor will not do your homework for you, but rather assist you in learning the material needed to complete the assignments. Come during the tutoring hours or office hours or talk to your instructor if you need a different time. Be sure to bring your text, pencil, paper, and calculator with you. Your classmates can also be a great resource. Perhaps you can help your friend with some sections and he/she can help you with others. You are also welcome to access the Net tutoring sessions that accompany the Math Zone site with the goal of learning the mathematics.

Homework: Ten homework assignments will be offered. Assignment #7 (Chapter 7) is optional.

Assessment and computation of grades:

Homework, assignments	15%
Quizzes	15%
In class activities and discussions	5%
Three Tests	45% (15% each)
Final Exam	20%

Classroom Policies:
<u>Workload:</u> This course does require a significant amount of work outside of class; we cannot do it all in just 2.5 hours a week. There will be some days in which two sections will be covered in class. It is your responsibility to reinforce your understanding of the material in class by reading the chapters in the text. In addition, you will need to complete the web-based assignments for each chapter with a score of 75% or better (Try for better!). You may find it helpful to use some of the other study sources available in Math Zone.

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<u>Attendance and Punctuality:</u> Active participation requires attendance and arrival to class in time to be prepared for work when the class period begins. You are expected to attend all classes. Much of the learning will take place in classroom activities that cannot be duplicated easily outside of class. If you miss class, you are responsible for doing all classroom activities you missed, getting the notes from a classmate, and turning in all work on the day it is due. If you miss more than two classes, your absences will be reported to the registrar and you must meet with the professor to discuss the advisability of your remaining in the course for the remainder of the semester. Students who miss three classes may be withdrawn from the course and receive disciplinary action from the college (see Rivier College attendance policy). If you anticipate that job-related duties or prior commitments will cause several absences, please discuss the matter with the instructor outside of class.

<u>The Statement of Attendance:</u> The classroom is the heart of the educational experience at Rivier College because it provides, uniquely, a formal setting for the important exchanges among faculty and students. Regular and punctual attendance at all classes, essential for maximum academic achievement, is a major responsibility of Rivier College students. Failure to attend and contribute to the classroom environment significantly and demonstrably reduces the quality of the educational experience for everyone in the classroom. As a result, absences almost always impact the quality of performance.

As part of its commitment to a quality educational experience for all members of the Rivier community, the College formally requires specific attendance policies to be developed by its professors and reviewed by the Division Head and Academic Dean. Any attendance policy used by an individual professor as a criterion for evaluation must be specified in the course syllabus and presented to students during the first week of classes. These policies can be found in respective course syllabi, and may include reasonable penalties and sanctions for excessive absences.

In the event of prolonged illness, accident, or similar emergency, it is the responsibility of the student to notify both the professor and the Office of the Academic Dean. Students must remember that it is always their responsibility to make up the work they may have missed during an absence from class. Students are directed to confer with their professors when their absences jeopardize satisfactory progress. Whenever a professor is absent without notification, students are expected to wait fifteen minutes before leaving and to sign an Attendance List, which a class member delivers to the Office of the Academic Dean.

Instructors are required to record attendance and alert the Registrar when a student fails to attend the equivalent of two weeks of courses (2 absences for a course meeting once a week, 4 absences for a course meeting twice a week, 6 absences for a course meeting three times a week). The student will then be alerted that he/she is in danger of falling under the 'habitual non-attendance policy" (see below).

<u>*Habitual Non-Attendance Policy*</u>:

Habitual non-attendance is defined as an absence in any course (for any reason whatsoever) equating to three full weeks of missed class sessions (3 absences for a course meeting once a week, 6 absences for a course meeting twice a week, 9 absences for a course meeting three times a week).

It is the responsibility of the student to notify the College of any intention to withdraw from a course or withdraw from the College. The College will attempt to resolve the issue of habitual non-attendance with the student; however, the College reserves the right to withdraw students who are no longer attending classes. Habitual non-attendance in one or more classes may result in administrative withdrawal from the class or classes affected, withdrawal from the College or, in cases with extenuating circumstances, an administrative leave of absence. In such cases a grade of W of NF will be assigned to the classes affected according to the appropriate date published in the academic calendar.

Students who have attended no class sessions of a course or courses from which they are registered by the end of the drop/add period will be dropped from each class not attended. If a student never attended any courses during the drop/add period, the student will be withdrawn from his/her full schedule of courses.

<u>Honesty Policy:</u> Plagiarism and cheating are serious breaches of academic honesty. In general, plagiarism is defined as the presentation of someone else's work in whatever form: copyrighted material, notes, film, art work, reports, statistics, bibliographies, and the like, as one's own, and failing to acknowledge the true source. Quoting word-for-word, or almost so, or using the argumentation of another source without acknowledging this dependence also constitutes plagiarism. Cheating is defined as the giving or attempting to give or to receive unauthorized information or assistance during an examination or in completing an assigned project. Submission of a single work for two separate courses without the permission of the instructors involved is also a form of cheating.

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If students are unsure whether a specific course of action would constitute plagiarism or cheating, they should consult with their instructor in advance.

Penalties for plagiarism and cheating vary with the degree of the offense and may take the form of the following academic sanctions:

- the grade of F for the work in question;
- the grade of F for the course;
- notification of the department chair and/or Academic Dean of the College of the misconduct of the student;
- recommendations that the student be suspended or dismissed from the College.

Making up tests: If unavoidable circumstances keep you from attending class on the day of the test, you must contact the instructor promptly to explain the absence and to schedule a make-up if one is approved. Documentation of the reason for absence is advised. Make-up quizzes, if approved by the instructor, must be completed prior to the class.

Cell phones: Cell phones should not be used during class. If you need to be available for emergency phone calls, talk to the instructor in advance and set the ringer to silent or vibrate. Leave the room to answer. Your calculator must be a separate device.

Asking questions: Questions are encouraged both in and out of class. All students have a right and responsibility to ask questions and give insight related to the understanding of course content. However, the instructor is also expected to cover a significant amount of material to prepare you for future coursework. For this reason, students having a large number of questions or significant difficulty with a topic are expected to seek help from the instructor outside of class. It is in your best interest to ask questions as soon as you have discovered and confirmed that you do not understand something.

Honesty policy: All work turned in on tests, quizzes, and the final must be entirely your own. Behavior contrary to this will result in a grade of F on the test. Serious infractions may result in an F for the course. Similarly, the paper you write for your project must not be plagiarized. See library discussion on plagiarism. Regarding homework, the instructor will not give you credit for any work that is copied from another source (from a classmate, instructor, a text, the answer key, web assistance, tutor, etc.). Take notes while getting help, but put aside the notes as you attempt to do the problems on your own.

Netiquette: You are encouraged to exercise good writing and social behavior when corresponding via e-mail or discussion boards. Too often I receive e-mails from students that are difficult to comprehend due to missing punctuation, sentence fragments, and abbreviations. Reread your message before hitting send to make sure that the message will not be misinterpreted. Use complete English (not IM) sentences. Avoid criticizing other individuals especially in a public forum or discussion.

Americans with Disabilities Act (ADA): Rivier College wants to provide reasonable accommodations to students with disabilities. To accomplish this goal effectively and to ensure the best use of our resources, timely notice of a disability must be provided to the Office of Special Services for verification and for evaluation of available options. Any student whose disabilities fall within ADA should inform the instructor within the first two weeks of the term of any special needs or equipment necessary to accomplish the requirements for the course. To obtain current information on this procedure, contact the Office of Special Services at phone extension 8497.

24/7 Blackboard Technical Support: All students have the ability to access Blackboard technical support on a 24/7 basis. Students have many different options for obtaining support, including phone, online technical library, or Live Chat with a customer service representative. The support can be accessed by following this link: http://supportcenteronline.com/ics/support/default.asp?deptID=3250

Mathematics is not a spectator sport. Just as one doesn't become a great athlete by watching games, one can't develop the skill of mathematics by watching the teacher. Give it a try! Take a break and come back to work at it some more. With practice will come understanding. You'll be amazed at what you can accomplish! Be sure to come see me whenever you need a little coaching or pep talk. I'm here for you!

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TOPIC OUTLINE:

SESSION	DATE	TOPIC	READING	HOMEWORK
1	Sept. 06	Introduction, Optional Quiz #0	Ch. R	
2	Sept. 11	Fractions, Decimals, and Percents	Ch. R, Ch. 1	
3	Sept. 13	Real Numbers and Their Properties	Ch. 1	
4	Sept. 18	Equations, Problem Solving	Ch. 2	Homework #1 due
5	Sept. 20	Quiz 1 (Ch. 1); Inequalities.	Ch. 2	
6	Sept. 25	Graphs of Linear Equations	Ch. 3	Homework #2 due
7	Sept. 27	Quiz 2 (Ch. 2); Graphs of Linear Eqs.	Ch. 3	
8	Oct. 02	Exponents	Ch. 4	Homework #3 due
9	Oct. 04	Quiz 3 (Ch. 3); Polynomials	Ch. 4	
10	**Oct. 09**	**NO CLASSES**		
11	Oct. 11	Review of Chapters 1-4	Chs. 1-4	Homework #4 due
12	**Oct. 16**	**TEST #1 (Chs. 1-3)**	Chs. 1-3	
13	Oct. 18	Quiz 4 (Ch. 4); Factoring	Ch. 5	
14	Oct. 23	Factoring	Ch. 5	
15	Oct. 25	Rational Expressions	Ch. 6	Homework #5 due
16	Oct. 30	Quiz 5 (Ch. 5); Rational Expressions.	Ch. 6	
17	Nov. 01	Graphs, Slopes, and Inequalities	Ch. 7	Homework #6 due
18	Nov. 06	Inequalities & Applications	Ch. 7	
19	**Nov. 08**	**TEST #2 (Chs. 4-5)**	Chs. 4-5	HW #7 (option.) due
20	Nov. 13	Solving Systems of Linear Equations	Ch. 8	
21	Nov. 15	Solving Systems of Linear Equations	Ch. 8	
22	Nov. 20	Quiz 6 (Ch. 8); Roots and Radicals.	Ch. 9	Homework #8 due
23	**Nov. 22**	**NO CLASSES**		
24	Nov. 27	Roots and Radicals.	Ch. 9	
25	Nov. 29	Quadratic Equations	Ch. 10	Homework #9 due
26	Dec. 04	Quiz 7 (Ch. 9); Quadratic Equations	Ch. 10	
27	**Dec. 06**	**TEST #3 (Chs. 6, 8-10)**	Chs. 6, 8-10	Homework #10 due
28	Dec. 11	*Final Exam Preparation*	Chs. 1-10	
29	Dec. 13	READING DAY	Chs. 1-10	
30	**Dec. 15**	**FINAL EXAM (8:00 AM – 10:00 AM)**	Chs. 1-10	